



Updated Classroom Study Material
July - August 2019

 8468022022, 9019066066  www.visionias.in

AHMEDABAD | DELHI | HYDERABAD | JAIPUR | LUCKNOW | PUNE

MAINS 365 - UPDATION

Table of Contents

1. POLITY & CONSTITUTION _____	2	4.2. NIA (Amendment) Act, 2019 _____	59
1.1. Removal of Article 370 and 35A _____	2	4.3. Terror Financing _____	60
1.2. Amendment to the RTI Act _____	3	4.4. Police Reforms _____	62
1.3. Protection of Human Rights (Amendment) Act 2019 _____	4	4.5. India's Transitions from Defence Market to Export Hub _____	63
1.4. The Inter-State River Water Disputes (Amendment) Bill, 2019 _____	7	4.6. Defence Financing _____	65
1.5. Parliamentary Standing Committees _____	9	4.7. Integrated Battle Groups _____	66
1.6. Anti-Defection Law _____	10	4.8. Chief of Defence staff _____	68
1.7. State Funding of Election _____	12	5. ENVIRONMENT _____	70
1.8. Free Legal Aid in India _____	13	5.1. Climate Change and Land _____	70
1.9. Arbitration in India _____	15	5.2. Jal Shakti Abhiyan _____	72
1.10. Demand for Local Job Quotas _____	16	5.3. Flood _____	74
1.11. India Enterprise Architecture (IndEA) Framework _____	17	5.3.1. Urban Flooding _____	76
2. INTERNATIONAL RELATIONS _____	19	5.4. Interlinking of Rivers _____	77
2.1. Regional Comprehensive Economic Partnership _____	19	5.5. National Resource Efficiency Policy _____	79
2.2. India-China Relations _____	22	5.6. Environmental and Social Management Framework _____	81
2.3. US-China Trade War _____	23	5.7. KUSUM _____	82
2.4. NATO Ally-Like Status _____	25	5.8. Payment for Ecosystem Services _____	84
2.5. India-UK Relations _____	26	5.9. Deep Ocean Mission _____	85
2.6. India-France _____	28	6. SOCIAL ISSUES _____	87
2.7. No First Use Doctrine _____	30	6.1. The Muslim Women (Protection of Rights on Marriage) Act, 2019 _____	87
2.8. India: Climate Diplomacy _____	31	6.2. Transgender Persons (Protection of Rights) Bill, 2019 _____	88
2.9. International Labour Organization _____	33	6.3. Surrogacy bill _____	90
3. ECONOMY _____	36	6.4. National Medical Commission Act 2019 _____	92
3.1. Direct Tax Code _____	36	6.5. Mob Lynching _____	95
3.2. Foreign Currency Borrowings _____	37	6.6. Population Policy _____	96
3.3. Corporate Bond Market _____	39	6.7. Child Labour in India _____	98
3.4. 50 Years of Bank Nationalisation _____	41	6.8. Is India ready to meet Sustainable Development Goals? _____	100
3.5. Corporate Social Responsibility (CSR) _____	42	7. SCIENCE AND TECHNOLOGY _____	102
3.6. Consumer Protection Act 2019 _____	44	7.1. Artificial Intelligence _____	102
3.7. Gig economy _____	45	7.2. Big Data _____	104
3.8. Disinvestment _____	46	7.3. Cryptocurrency _____	107
3.9. Coal India _____	48	7.4. Gaganyaan _____	109
3.10. Port-led development _____	50	7.5. Chandrayaan 2 _____	111
3.11. Industrial Corridors _____	52	7.6. DNA Technology (Use & Application) Regulation Bill _____	112
3.12. Road Safety _____	54	7.7. Innovation Ecosystem _____	114
4. SECURITY _____	57		
4.1. Unlawful Activities (Prevention) Amendment Act, 2019 _____	57		

1. POLITY & CONSTITUTION

1.1. REMOVAL OF ARTICLE 370 AND 35A

Why in news?

The Centre decided to end the special status given to Jammu and Kashmir (J&K) under Article 370.

More on news

- President of India in “concurrence” with the “Jammu and Kashmir government” promulgated **Constitution (Application to Jammu and Kashmir) Order, 2019** which states that provisions of the Indian Constitution are applicable in the State. This effectively means that all the provisions that formed the basis of a separate Constitution for Jammu and Kashmir stand abrogated. With this, Article 35A is scrapped automatically.
- Along with this, a **statutory resolution** was approved by the Parliament which – invoking the authority that flows from the effects of Presidential Order – recommended that the President abrogate (much of) Article 370.
- Also, **Jammu and Kashmir Reorganization Act, 2019** was passed by the Parliament. Jammu & Kashmir (J&K) was re-organised into two Union Territories - J&K division with a legislative assembly and the UT of Ladakh without having an assembly.

Article 370 and Article 35A – A brief background

- The peculiar position of Jammu and Kashmir was due to the circumstances in which the State acceded to India. The Government of India had declared that it was the people of the state of J&K, acting through their constituent assembly, who were to finally determine the constitution of the state and the jurisdiction of government of India.
- The applicability of the provisions of the Constitution regarding this State were accordingly, to be in nature of an interim arrangement. This was the substance of the provision embodied in Art. 370 of the Constitution of India.
- Art. 370 had “**temporary provisions with respect to the State of Jammu and Kashmir**” which gave special powers to the state allowing it to have its **own Constitution**.
- According to article 370, except for defence, foreign affairs, finance and communications, **Parliament needs the state government’s concurrence** for applying all other laws.
- Article 35A of the Indian Constitution, which stemmed out of Article 370, gave powers to the Jammu and Kashmir Assembly to define permanent residents of the state, their special rights and privileges.

Possible implications of the move

- Complete applicability of Indian Constitution to J&K
- No separate flag
- Tenure of the J&K assembly to be five years, instead of the earlier six years.
- Replacing Ranbir Penal Code (the separate penal code for J&K) with the Indian Penal Code.
- Article 356 under which the President’s Rule can be imposed in any state, will also be applicable to the UT of Jammu and Kashmir.
- The central quota laws in school-college admissions and state government jobs will apply.
- People from other states may be able to acquire property and residency rights.
- RTI would be made applicable.
- Certain provisions of the J&K Constitution which denied property rights to native women who marry a person from outside the State may stand invalidated.

How the Scrapping of Article 370 and 35A became possible?

- President issued a **presidential order under Article 370 (1)** of the Constitution. This clause enables the President to specify the matters which are applicable to Jammu and Kashmir in concurrence with the Jammu and Kashmir government.
- The **order amended Article 367**. Article 367 contains guidance on how to read or interpret some provisions. The amended Article declares that “the expression ‘**Constituent Assembly** of the State...’ in Article 370 (3) shall be read to mean ‘**Legislative Assembly** of the State’. Article 370(3) provided that the Article 370 was to be amended by the concurrence of the Constituent Assembly. However, because of the amendment, it can now be done away by a recommendation of the state legislature.
- In other words, the government used the power under 370(1) to amend a provision of the Constitution (Article 367) which, then, amends Article 370(3). And this, in turn, becomes the trigger for the statutory

resolution - Resolution for Repeal of Article 370 of the Constitution of India. As Jammu and Kashmir is under the president rule, concurrence of governor is considered as “Jammu and Kashmir government”.

Scrapping Article 370: Constitutional and legal challenges

Petitions have been filed in the Supreme Court challenging the recent action of the Union Government on Jammu and Kashmir, the following legal issues may receive attention in the course of judicial deliberations.

- **Legality of the Presidential order:** Article 370 itself cannot be amended by a Presidential Order. Even though the Order amends Article 367, the content of those amendments, however, do amend Article 370. And as the Supreme Court has held on multiple occasions, you cannot do indirectly what you cannot do directly. Therefore, legality of the order – insofar as it amends Article 370 – is questionable.
- **Misusing the President Rule and Making Governor as a substitute for the elected assembly:** The governor is the representative of the Union Government in the State. In effect, the Union Government has consulted itself.
 - Also, President’s Rule is temporary and is meant to be a stand-in *until* the elected government is restored. Consequently, decisions of a permanent character – such as changing the entire status of a state- taken *without* the elected legislative assembly, but by the Governor, are inherently problematic.
- **Equating state assembly with constituent assembly:** The difference is that the one has to exercise its powers as per the constitution, while the other develops the constitution. This distinction that is at the heart of India’s basic structure doctrine that prevents certain constitutional amendments on the ground that Parliament, which exercises representative authority, is limited and cannot create a new constitution and thereby exercise sovereign authority.
- **Going against the Jammu and Kashmir’s Constitutional position:** Presidential order has assumed that legislative assembly has power to scrap Article 370. But Article 147 of the Jammu and Kashmir Constitution prohibits such a move. The Article makes it clear that any changes to the Jammu and Kashmir Constitution needs the approval of two-thirds of the members of the legislative assembly.

Conclusion

When the Constituent Assembly of J&K ceased functioning, a long-standing debate about the nature of Article 370 started. Before dissolution, the Constituent Assembly neither recommended abolishing Article 370 nor did they advocate for it to be permanent. Yet, it remains to be seen whether the manner in which Article 370 has been repealed stands the test of judicial review.

Article 370 was about providing space, in matters of governance, to the people of a State who felt deeply vulnerable about their identity and insecure about the future. However, there are concerns that it neither served the common people in J&K nor did it facilitate J&K’s integration with the rest of India. Therefore, one must hope that the move will bring a new dawn of development and inclusion for Jammu and Kashmir, which will give a voice to those who were deprived and marginalised.

1.2. AMENDMENT TO THE RTI ACT

Why in news?

Recently, the Parliament passed the **Right to Information (Amendment) Bill, 2019**.

Amendments brought in the RTI Act

- **Removal of fixed term-** As per the act, the CIC and ICs will hold office for a term of five years. The Amendment removes this provision and states that the central government will notify the term of office for the CIC and the ICs.
- **Determination of Salary-** As per the act, the salary of the CIC and ICs (at the central level) will be equivalent to the salary paid to the Chief Election Commissioner and Election Commissioners, respectively. Similarly, the salary of the CIC and ICs (at the state level) will be equivalent to the salary paid to the Election Commissioners and the Chief Secretary to the state government, respectively.
 - The Amendment empowers the Central Government to determine the salaries, allowances, and other terms and conditions of service of the central and state CIC and ICs.

Rationale behind the amendments

- The salaries and allowances and other terms and conditions of service of the **CEC** and **EC** are equal to a Judge of the Supreme Court, therefore, the **CIC**, **IC** and the **State CIC becomes equivalent to a Judge of the Supreme Court** in terms of their salaries and allowances and other terms and conditions of service.
 - But, the functions being carried out by the Election Commission of India and the Central and State Information Commissions are totally different. Whereas the ECI is a constitutional body, but the CIC and SIC are statutory bodies.
 - The decisions of ICs are challenged in high courts, therefore their status being equivalent to Supreme Court judges was causing legal hindrances.
 - Hence, their status and service conditions need to be rationalised accordingly.
- The purpose of the amendments proposed is to provide for enabling provision under the RTI Act to frame Rules regarding salaries, allowances and conditions of service for Chief Information Commissioners and Information Commissioners and State Information Commissioners. Presently, there are no such provisions available under the RTI Act 2005.

Arguments against the Amendments

- **Incorrect Rational given-** Experts have rejected the justifications of government on the rationalisation of status-
 - The decisions of all authorities including those of the President and prime minister are challenged before high courts and that their status does not prevent or debar such challenges.
 - The genesis of the RTI comes from Supreme Court rulings on how right to information is a pre-condition for informed voting and therefore, parity between information and election commissioners is not an anomaly.
- **Dilutes the independence of CICs and ICs-** as the Central government may determine the term and salaries of CICs and ICs.
 - Uncertain term and salary changeable by executive notification reduces CIC to an obedient subordinate.
 - This also hampers accountability as it calls people's right to information under question.
 - A situation could arise where different commissioners will have different tenures and salaries.
 - if salaries and tenures are downgraded, eminent people may not apply for the vacant posts.
- **Dilutes the status of CICs-** Chief Information Commissioner and Chief Election Commissioner (and the state level officers) were kept at the same footing, as according to the Supreme Court of India RTI and Right to vote are equally important fundamental rights. However, the amendments tend to change this scenario.
- **Encroaches upon the state jurisdiction-** as the Central government will prescribe the term, status and salary of State Information Commissioners.
- **Lack of consultation-** with the civil society and the state Governments, which amounts to undemocratic imposition. It was not put in the public domain and the amendment did not undergo much scrutiny.

Way forward

- As per legal experts, rather than downgrading the status, the Information Commission should be given a constitutional status.
- With the increasing number of attacks on RTI users, the government may focus its efforts on better proactive disclosure of information and offer protection to people who show truth to power by exposing corruption and wrongdoing.

1.3. PROTECTION OF HUMAN RIGHTS (AMENDMENT) ACT 2019

Why in news?

President gave assent to the **Protection of Human Rights (Amendment) Act, 2019** in order to make NHRC more inclusive and efficient in its functioning.

Need for the amendment in the existing Act

- The NHRC was **denied A-grade accreditation in 2017** by the **Global Alliance of National Human Rights Institutions (GANHRI)**, a UN body based in Geneva, due Commission's failure in **ensuring gender balance**

and pluralism in its staff and lack of transparency in selecting its members and rising political interference.

- However, in February 2018, GANHRI, re-accredited India’s apex rights watchdog with the ‘A’ status.
- **Demand from the certain State Governments have also proposed for amendment of the Act**, as they have been facing difficulties in finding suitable candidates to the post of Chairperson of the respective State Commissions owing to the existing eligibility criteria to the said post.

Significance of the recent amendment

- The proposed amendments will enable both the National Commission as well as the State Commissions to be more compliant with the Paris Principles concerning its **autonomy, independence, pluralism** and wide-ranging functions in order to effectively protect and promote human rights.
- **Filling up the Vacancies:** The age limit for appointment to the panel has been **reduced to fill the vacancies**. The amendment has ensured **transparency in the appointment** of Chairman and members of the Commission.
- **Enabling conditions to incorporate Civil Society:** Effort is to also to increase the presence of civil Society in the composition of the Commission.
- **Ease of accessibility:** The applicants in Union Territories can now appeal in the human Rights Commission of nearby states instead of coming all the way to Delhi.

Amendments to the original Act of 1993

Provisions	Original Act of 1993	Amended Act of 2019
Composition of NHRC:	<ul style="list-style-type: none"> ● Under the Act, the chairperson of the NHRC is a person who has been a Chief Justice of the Supreme Court. ● The Act provides for two persons having knowledge of human rights to be appointed as members of the NHRC. ● Under the Act, chairpersons of various commissions such as the National Commission for Scheduled Castes, National Commission for Scheduled Tribes, and National Commission for Women are members of the NHRC. 	<ul style="list-style-type: none"> ● The Act amends this to provide that a person who has been Chief Justice of the Supreme Court, or a Judge of the Supreme Court will be the chairperson of the NHRC. ● The Act amends this to allow three members to be appointed, of which at least one will be a woman. ● The Act provides for including the chairpersons of the National Commission for Backward Classes, the National Commission for the Protection of Child Rights, and the Chief Commissioner for Persons with Disabilities as members of the NHRC.
Chairperson of SHRC:	Under the Act, the chairperson of a SHRC is a person who has been a Chief Justice of a High Court.	The Act amends this to provide that a person who has been Chief Justice or Judge of a High Court will be chairperson of a SHRC.
Term of office:	<ul style="list-style-type: none"> ● The Act states that the chairperson and members of the NHRC and SHRC will hold office for five years or till the age of seventy years, whichever is earlier. ● Further, the Act allows for the reappointment of members of the NHRC and SHRCs for a period of five years. 	<ul style="list-style-type: none"> ● The Act reduces the term of office to three years or till the age of seventy years, whichever is earlier. ● The Act removes the five-year limit for reappointment.
Union Territories:		The Bill provides that the central government may confer on a SHRC human rights functions being discharged by Union Territories. Functions relating to human rights in the case of Delhi will be dealt with by the NHRC.

NHRC as an Institution: An analysis

Set up in 1993, in the backdrop of criticism **against gross human rights violations in Kashmir**, the National Human Rights Commission plays four key roles — **protector, advisor, monitor and educator** of human rights. The commission is particularly tasked with **independently investigating rights violations** committed by the government’s arms.

In order to exercise these powers, they have been provided a clearly defined and broad-based mandate, encompassing all human rights — **civil, political, social, cultural, and economic**. **However in the working of the commission, following concerns have been raised:**

- **Lack of infrastructure:** In 2017, NHRC admitted that despite a 1,455 per cent increase in complaints between 1995 and 2015, its staff strength had decreased by 16.94 per cent in the same period. Commission officials have admitted in Supreme Court that with its current staff capacity, **it cannot investigate more than 100 cases a year.**
 - **Conflict of interest:** Almost 50 per cent of the NHRC's staff is on deputation from other services who keeps changing, leaving the commission constantly short-staffed. Also, the officers conducting investigations are usually on deputation from the same forces that have been accused of violations and will have to inevitably go back to them, creating a conflict of interest.
 - **Limiting its ambit of work:** In terms of action against excess police action, the NHRC has limited itself to **custodial death, rape and torture by police** and has refrained from venturing into torture cases related to terrorism and insurgency. Civil society groups argue that NHRC has refrained from asserting its independence by not taking up cases with high **political stakes.**
 - **Questions of independence and govt interference:** The very nature of formation of the NHRC – by an Act of Parliament and where the chairperson and the members of the Commission are appointed by the **President**, on the recommendations of a committee that includes the Prime Minister – which has raised doubts in the minds of many about its ability to function independently. Additionally, **the recommendations of the NHRC are not binding on the governments.**
 - NHRC takes cognisance of cases based solely on media reports and not through its on-field work at the grassroots level.
 - **Lack of co-operation from States:** The NHRC hands are tied since state governments do not cooperate with it. In 2017, in an affidavit to SC, it said that compliance with its directives by the states has only been half-hearted, with several deficiencies such as **unexplained delays, sub-quality reports, and illegible documents.**
 - **No power of granting punishment to the accused:** While in over 90 per cent of cases financial compensation recommended by the NHRC is paid to the victims by the concerned authorities, the Commission has had very little success in getting the guilty punished. The NHRC may, however, **move to SC** if its recommendations are not accepted. For example: A **Special Investigation Team (SIT)** was constituted to investigate some of the serious cases of 2002 Godhra riots of Gujarat.
 - **Limited judicial powers:**
 - **Powers with regard to armed forces:** The NHRC has **no powers to investigate human rights violations involving the armed forces.** NHRC on receiving a complaint or while taking suo motu cognisance of a violation, can only send queries to the Defence Ministry and **make recommendations** based on it.
- Successes of NHRC**
Since its formation, the Commission has **taken up some important projects** and has, through its reviews, reports and recommendations, taken up issues such as cause of **prison inmates, patients at mental health asylums, bonded labourers, people with disabilities, women and children and the economically and socially marginalised sections** of the country.

 - **NHRC opened the state to judicial and moral scrutiny:** One example is the consistent watch the Commission has **kept on incidences of 'encounter killings' and deaths in custody.** It has issued guidelines wherein every death in police action has to be reported to the NHRC **within 48 hours of the incident.**
 - **Vocal in its opinion against laws** such as the Terrorist and Disruptive Activities (Prevention) Act (TADA) and Prevention of Terrorism Act, 2002 (POTA) – which had scope for misuse and possible human rights violations.
 - **Expanding Reach:** Over the years, as awareness about the NHRC's existence and work increased, so has its reach among the people. According to the Commission's estimate, from 169 complaints received in 1993-94, the NHRC went on to receive 68,713 complaints in 2002-2003 to one lakh in 2007-2008 and 1,17,808 in 2015-16.
 - **Suo motu cognisance of human rights violations,** based on media reports or other sources of information and investigates them. For example, the NHRC issued a notice to the Union Ministry of Home Affairs over the planned deportation of about 40,000 Rohingya immigrants, and asked the ministry to submit a detailed report within four weeks.
 - Soon after its creation, the NHRC in 1994 had taken up the issue of safety of **the Chakma community in Arunchal Pradesh.**
 - **Enlarging its ambit/mandate:** The Commission has also gone beyond the physical violation of human rights to protect the economic, social and cultural rights of people Example - being assigned to look into the **extreme poverty, starvation in Kalahandi, Bolangir and Koraput regions of Odisha** etc.

- This becomes a major handicap for the Commission in states under AFSPA or the Armed Forces (Special Powers) Act – such as **Jammu and Kashmir and Manipur** – where allegations of violations are common. The **NHRC has been of the view that the AFSPA should be repealed.**

Way Ahead

While the most important contribution of NHRC has been its ability to **raise awareness through dialogue about the need for human rights protection in the country**, its role in future would be diversified towards new emerging concerns like **business and human rights, environmental impact on human rights and LGBT rights.**

The amendment, hence should be seen as a **progressive step** towards aiming to strengthen NHRC as an autonomous body.

The responsibility of the State to ensure universal access to human rights and a life of dignity are further underscored by **international human rights conventions**, to many of which India is a signatory.

1.4. THE INTER-STATE RIVER WATER DISPUTES (AMENDMENT) BILL, 2019

Why in news?

Recently, the Lok Sabha cleared the **Inter-State River Water Disputes (Amendment) Bill, 2019**, which proposes to streamline the adjudication of inter-state river water disputes and make the present legal and institutional architecture robust.

Background

- India has seen protracted river water sharing disputes in recent years.
 - Depleting groundwater, drying rivers and increasing demand for water have led to long legal contentions between warring states.
- Under the **Interstate River Water Disputes Act**, a state government may request the central government to refer an inter-state river dispute to a Tribunal for adjudication.
 - If the central government is of the opinion that the dispute cannot be settled through negotiations, it is required to set up a Water Disputes Tribunal for adjudication of the dispute, within a year of receiving such a complaint.
- Over the years, there have been many Water Dispute Tribunals hearing the cases between states on river water sharing. But they have not been able to effectively resolve the disputes.

Constitutional and Legal Provisions with regard to Water

- **Article 262(1)** provides that Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter State river or river valley.
- **Article 262(2)** empowers Parliament with the power to provide by law that neither the Supreme Court nor any other court shall exercise jurisdiction in respect of any such dispute or complaint.
 - Under Article 262, two acts were enacted
 - **River Boards Act 1956:** It was enacted with a declaration that centre should take control of regulation and development of Inter-state rivers and river valleys in public interest. However, not a single river board has been constituted so far.
 - **The Interstate River Water Disputes Act, 1956 (IRWD Act)** confers a power upon union government to constitute tribunals to resolve such disputes. It also excludes jurisdiction of Supreme Court over such disputes.
- Despite Article 262, the Supreme Court does have jurisdiction to adjudicate water disputes, provided that the parties first go to water tribunal and then if they feel that the order is not satisfactory only then they can approach supreme Court under article 136.
 - This article gives discretion to allow leave to appeal against order, decree, judgment passed by any Court or tribunal in India.

Key Provisions include

- **Dispute Resolution Committee (DRC)**- to be established by the Central Government before referring dispute to the tribunal, to resolve the dispute amicably by negotiations **within one year** (extendable by six months), and submit its report to the central government.
 - If a dispute cannot be settled by the DRC, the central government will refer it to the Inter-State River Water Disputes Tribunal.
- **Establishment of a Single Inter-State River Water Disputes Tribunal**- by the Central Government, which can have multiple benches.

- All existing Tribunals will be dissolved, and the water disputes pending adjudication before such existing Tribunals will be transferred to the new Tribunal.
- **Composition of Tribunal**- will include a Chairperson, Vice-Chairperson, three judicial members, and three expert members.
 - They will be appointed by the central government on the recommendation of a Selection Committee.
 - The term of office of the Chairperson and Vice-Chairperson shall be five years or till they attain the age of seventy years, whichever is earlier.
 - The central government may also appoint two experts serving in the Central Water Engineering Service as assessors to advise the Bench in its proceedings.
 - The assessor should not be from the state, which is a party to the dispute.
- **Timeline:** the proposed Tribunal must give its decision on the dispute **within two years**, which may be extended by **another year**.
- **Finality** - The decision of the Tribunal shall be final and binding. The bill also removes the requirement of publication of decision in the official gazette in the original Act. It also makes mandatory for the Central Government to make a scheme to give effect to the decision of the Tribunal.
- **Data Collection and maintenance of a databank**- at national level for each river basin by an agency to be appointed and authorized by central government.

Issues with the present Inter State River Water Dispute Act, 1956:

- A **separate Tribunal** has to be established for each Inter State River Water Dispute.
- **Inordinate delay** in securing settlement of such disputes. Tribunals like Cauvery and Ravi Beas have been in existence for over 26 and 30 years respectively without any award.
 - There is **no time limit for adjudication**. In fact, delay happens at the stage of constitution of tribunals as well.
- No provision for an adequate machinery to enforce the award of the Tribunal.
- **Lack of uniform standards**- which could be applied in resolving such disputes.
- **Lack of adequate resources**- both physical and human, to objectively assess the facts of the case.
- **Lack of retirement or term**- mentioned for the chairman of the tribunals.
- **Issue of finality**- In the event the Tribunal holding against any Party, that Party is quick to seek redressal in the Supreme Court. Only three out of eight Tribunals have given awards accepted by the States.

Benefits of the Amendment

- **Speed up the Process**- as there will be less work on appointment of judges, assessors and other experts, which used to delay the process at setting up the tribunal itself earlier. Further, with concrete timelines, resolution will be complete.
- **Continuous evaluation**- of the river basins could be possible owing to the maintenance of databank. It can not only provide insights on the rivers associated with a particular dispute, rather they can be used in all other basins.

Issues in the Amendment

- **Fear of Centralisation**- Some states like Tamil Nadu and Odisha, have raised serious concerns about the appropriation of more powers by the central government to decide water disputes between states.
 - Instead of the Chief Justice of India nominating persons for appointments, it would now be the central government making such appointments through a selection committee.
- Benches of Permanent Tribunals are proposed to be created as and when need arise. Thus it is not clear how these temporary benches will be different from present system.
- **Decision still not final**- as the Supreme Court had said that it can hear appeals against water tribunal set up under ISWDA.
- Institutional mechanism to **implement tribunal's** award is still mired in ambiguities.

Way Forward

- **Inter-State Council (ISC)** can play a useful role in facilitating dialogue and discussion towards resolving conflicts.
- **Bringing water into concurrent list:** as recommended by Mihir shah report where central water authority can be constituted to manage rivers. It was also supported by a Parliamentary Standing Committee on Water Resources.
- **Declaration of Rivers as National Property:** which may reduce the tendency of states, which consider controlling of river waters as their right. Water disputes **need to be depoliticized** and not be made into

emotional issues linked with regional pride. Further, there is a need for scientific management of crop patterns by bringing out policy measures that promote water efficient crops and varieties.

- **Interlinking of rivers**- can help in adequate distribution of river water in the basin areas.

1.5. PARLIAMENTARY STANDING COMMITTEES

Why in news?

In the recent session of Parliament, all the bills were passed **without the scrutiny** by parliamentary standing committees.

Background

- **Parliamentary Committees** are setup as an instrument to assist the working of Parliament in its various activities. They are classified into- **Standing Committee and Adhoc Committee** (temporary). Standing Committees are permanent, constituted every year and work in a continuous manner.
- Recently, after the formation of the 17th Lok Sabha, parliamentary standing committees **have not been constituted**, as consultations among parties are still under way. Partly as a result of this, all the bills were passed **without committee scrutiny**.
 - According to PRS Legislative Research, only 25% of the Bills introduced were referred to committees in the 16th Lok Sabha, as compared to 71% and 60% in the 15th and 14th Lok Sabha respectively.

Significance of the Standing Committee System-

- **Detailed scrutiny and upholding government accountability:** Parliament cannot effectively uphold the accountability of the executive due to the increasing magnitude and complexity of modern administration and time constraints of the sessions of Parliament. The disruptive changes in technology also throw up new policy challenges that require a constant reform of legal and institutional structures.
 - Standing committees increase the ability of Parliament to scrutinize government policies and make it accountable through an informed debate in the legislature.
 - They also examine budgetary allocations for various departments and other policies of the government.
 - Some of them are the Public Accounts Committee, the Estimates Committee, the Committee on Public Sector Undertakings, the Departmental Standing Committees and other committees to inquire, control, and for general purpose etc.
- **Work in non-partisan manner-** Committee meetings are 'closed door' and members are not bound by party whips, which allows them the latitude for a more meaningful exchange of views. **It aids the Opposition and other members** in both the houses to play a greater role in exercising control over the executive.
- **Engagement with relevant stakeholders:** The committees regularly seek feedback from citizens and experts on subjects it examines for example, the RBI governor was summoned by the Finance Committee on the subject of demonetization.
 - They act as a link between parliament and people on the one hand, and between the administration and parliament on the other.
- **Financial Prudence-** The system ensures economy and efficiency in public expenditure, as the ministries/ departments would not be more careful in formulating their demands.

Implications of passing bills without going through Standing Committee

- In absence of such scrutiny by the Standing Committees, the legislations

Other issues related to the standing committees

- **Poor attendance of Members:** The attendance of members in committee meetings has been a cause for concern as well, which is about 50% since 2014-15.
- **Short tenure for members:** Constitution of DRSCs for a year leaves very little time for specialisations.
- **Lack of Discussion on Committee Reports:** Since they are recommendatory in nature, reports of the committees are not taken up for discussion in Parliament except for references in certain debates on bills.
- **Lack of expertise:** The members of the committee lack technical expertise required to go into intricacies of specialized subjects under consideration of some committees such as accounting and administrative principles.
- **Politicization of the proceedings:** With greater public interest shown in some issues, members have started taking strict party lines in committee meetings.

may **not become holistic and farsighted**. Such laws may require frequent amendments, which delay the process and defeat the purpose.

- It complements other actions such as frequent use of guillotine, ordinances, which **try to evade scrutiny of the legislature**.
- All this does not allow a **detailed, continuous, in-depth and comprehensive control** of Parliament over executive.

Way Forward

Strengthening the committee system can go a long way in improving the quality of laws drafted and minimise potential implementation challenges. The need of the hour is for greater and effective utilisation of Parliamentary Committees to strengthen Parliament as a deliberative body which can ensure effective oversight.

Scrutiny of all the legislations through Parliamentary Standing Committees must be made mandatory by convention. The government must not seek to vote the legislation without it being considered by the Standing Committee.

1.6. ANTI-DEFECTION LAW

Why in News?

Supreme Court issued two significant directions in the Karnataka rebel MLAs case, both of which could have a profound effect on the anti-defection law.

Anti-defection Law

- The anti-defection law is contained in the 10th Schedule of the Constitution. It was enacted by Parliament in 1985.
- **Reason:** Indian political scene was besmirched by political defections by members of the legislature. Legislators used to change parties frequently, often brought about political instability. This caused serious concerns to the right-thinking political leaders of the country.
- According to the law, any member of Parliament or state legislature can be disqualified if he or she:
 - **Voluntarily gives up membership of his/her political party.**
 - Votes or abstains in the House, contrary to the whip of his/her party.
 - It also applies to Independent lawmakers or nominated members who join a party.
- There are two other important clauses:
 - The exception to this rule is if at least two thirds of the members of a particular party in the House decide to merge with another party. In such a scenario, both the members who have defected as well as those who haven't will be protected from disqualification. Another exception is if the original party merges with another party.
 - The decision to disqualify lies with the Speaker or Chairman of the House.

Karnataka Case

- The MLAs of the ruling Janata Dal (Secular)-Congress coalition submitted their resignations to the speaker in the first week of July. If all the resignations from the house are accepted, the Congress-JD(S) government would no longer have a majority. Thus, it is alleged that speaker was delaying to accept the resignation.
- This led the legislators to file petition in Supreme Court against the speaker's delay in accepting their resignations.

Supreme Court Judgment in this case

- First, the court refused to order the speaker of the Karnataka Assembly to decide on the resignation of the 15 MLAs within a fixed time period.
- Second, the court ruled that the 15 MLAs can't be compelled to attend the House's proceedings. This means that MLA's would not be bound by the whip of their respective parties in the trust vote.

Recent cases of defections

- In Goa, 10 out of 15 Congress MLAs defected to the BJP. As this is exactly two-thirds, they were protected from being disqualified under the anti-defection law.
- Recently 12 out of 18 Congress MLAs in Telangana defected to the TRS under the same clause.
- Similarly, four out of six TDP MPs in the Rajya Sabha moved to the BJP.

Advantages and disadvantages of Anti-Defection Law

Advantage	Disadvantage
Provides stability to the government by preventing shifts of party allegiance.	By preventing parliamentarians from changing parties, it reduces the accountability of the government to the Parliament and the people.

Ensures that candidates elected with party support and on the basis of party manifestoes remain loyal to the party policies. Also promotes party discipline.	Interferes with the member's freedom of speech and expression by curbing dissent against party policies
--	---

Issues with Anti-defection law

- **Whether the right to freedom of speech and expression is curtailed by the Tenth Schedule: In Kihota Hollohon vs. Zachilhu and Others** Supreme Court stated that the provisions do not subvert the democratic rights in Parliament and state legislatures. It does not violate their conscience. The provisions do not violate any right or freedom under Articles 105 and 194 of the Constitution
- **Whether only resignation constitutes voluntarily giving up membership of a political party:** The law provides for a member to be disqualified if he 'voluntarily gives up his membership'. In **Ravi S Naik v. Union of India case** Supreme Court has interpreted that in the absence of a formal resignation by the member, the giving up of membership can be inferred by his conduct. In **G. Vishwanathan v. Speaker, Tamil Nadu Legislative Assembly case** supreme court states that members who have publicly expressed opposition to their party or support for another party were deemed to have resigned.
 - In Karnataka judgement court ruled that legislature who resigned cannot be bound by the whip of their respective parties in the trust vote.
- Its distinction between individual defection and group defection is not rational. In other words, 'it only banned retail defections and legalised wholesale defections'.
- Its vesting of decision-making authority in the presiding officer is criticised on two grounds:
 - Firstly, he may not exercise this authority in an impartial and objective manner due to political exigencies.
 - Secondly, he lacks the legal knowledge and experience to adjudicate upon the cases. In fact, two Speakers of the Lok Sabha (Rabi Ray—1991 and Shivraj Patil —1993) have themselves expressed doubts on their suitability to adjudicate upon the cases related to defections.
- Its discrimination between an independent member and a nominated member is questionable. If the former joins a party, he is disqualified while the latter is allowed to do the same.
- **Decision of the Presiding Officer is subject to judicial review:** The law initially stated that the decision of the Presiding Officer is not subject to judicial review. This condition was struck down by the Supreme Court in Kihota Hollohon in 1992, thereby allowing appeals against the Presiding Officer's decision in the High Court and Supreme Court. However, it held that there may not be any judicial intervention until the Presiding Officer gives his order.
 - In 2015, the Hyderabad High Court, refused to intervene after hearing a petition which alleged that there had been delay by the Telangana Assembly Speaker in acting against a member under the anti-defection law
- **Time limit for the Presiding Officer to decide:** The law does not specify a time-period for the Presiding Officer to decide on a disqualification plea. However, there have been several cases where the Courts have expressed concern about the unnecessary delay in deciding such petitions.
 - In recent Karnataka case Supreme court refused to order the speaker of the Karnataka Assembly to decide on the resignation of the 15 MLAs within a fixed time period.

Recommendations by different Committees

There have been a few recommendations that aim to do away with the shortcomings of the Anti-Defection Law

- **Dinesh Goswami Committee on electoral reforms (1990)** suggests that the issue of disqualification should be decided by the President/ Governor on the advice of the Election Commission. It also suggests that disqualification should be limited to cases where a member abstains from voting, or votes contrary to the party whip in a motion of vote of confidence or motion of no-confidence.
- **Halim Committee on anti-defection law (1998)** suggests that
 - The words 'voluntarily giving up membership of a political party' be comprehensively defined.
 - Restrictions like prohibition on joining another party or holding offices in the government be imposed on expelled members.
 - The term political party should be defined clearly.
- **The Law Commission (1999)** suggested that mergers shouldn't be exempt from disqualification.
- **The Constitution Review Commission of 2002** suggested that defectors should be barred from holding public office.

Conclusion

The presence of anti-defection laws in India indicates that Indian democracy is in a growing stage and legislators are less informed on the principles of democracy, but are more inclined to get monetary and political benefits.

Necessary amendments are required in the Representation of People Act to make political parties more democratic in the selection of their leadership. The Constitution needs to be amended to insert a provision that only the violation of whip issued by a political party following intra-party democracy would entail disqualification of a legislator.

1.7. STATE FUNDING OF ELECTION

Why in News?

A private member's bill 'Representation of the People (Amendment) Bill' was proposed in the Rajya Sabha that seeks removal of the limit on candidate election expenditure and proposed state funding of elections.

What is state funding of election?

This means that government gives funds to political parties or candidates for contesting elections and meeting other election-related expenses instead of individual campaign contribution.

Argument for state funding of election

- It creates a level playing field for parties and candidates with less resources.
- It helps to reduce the dependency on corporate or private money.
- By providing "floor level fund" to everyone, state fund scheme can be very helpful for smaller and newer political entrants.
- Candidates who are elected through a fair electoral process would be transparent and accountable in providing governance.
- Through state funding the demand for internal democracy in party, women representations, representations of weaker section can be encouraged.

Argument against state funding of election

- State funding increases the distance between political leaders and ordinary citizens as the parties do not depend on the citizens for mobilization of party fund.
- If all or a substantial amount of the party income comes directly from the State rather than from voluntary sources, political parties risk losing their independence and become organs of the State, thereby losing their ties to the civil society.
- State funding would encourage non-serious candidate to enter into the political arena merely to avail of state funds.
- Many experts believe that state-funding of election will not stop parties from lobbying and getting undisclosed additional funds.

Various Committees on state funding of election

- **Indrajit Gupta Committee on State Funding of Elections (1998):** It said that state funds should be given only to registered national and state parties and that it should be given in kind only.
- **Law Commission Report on Reform of the Electoral Laws (1999):** The report concurred with state funding of election but also recommended first putting a strong regulatory framework in place including internal elections, accounting procedures etc.
- **National Commission to Review the Working of the Constitution (2001):** It did not endorse state funding of elections but concurred with the 1999 Law Commission report that the appropriate framework for regulation of political parties would need to be implemented before state funding is considered.
- **Second Administrative Reforms Commission (2008):** It also recommended partial state funding of elections for the purpose of reducing "illegitimate and unnecessary funding" of elections expenses.
- **View of election commission:** The Election Commission has told a parliamentary committee that it does not support state funding of elections but instead seeks "radical" reforms in the way funds are spent by political parties.

Conclusion

Many successful democracies around the world has successfully implemented comprehensive or partial state funding of election. India should also implement the state funding of election to curb use of black money. But first bring necessary reforms like inner party democracy as recommended by most of the commission.

Candidate election expenditure

- The Election Commission of India has set an expenditure limit of Rs 70 lakh for the candidates in the Lok Sabha elections 2019.
- A limit has been fixed for all expenses such as posters, banners, vehicles, prints and electronic advertisements, public meetings, tents and all such expenses made by the candidates under legal limits of which a record is maintained in the Lok Sabha election.
- It is mandatory for all candidates to open an account in bank for the expenses, the payment of which will be made through cheque.
 - An incorrect account, or expenditure beyond the ceiling, can attract disqualification for up to three years.
- The district authorities monitor the expenses of the political parties from the date of declaration of election to the date of declaration of results through a flying squad.

Argument for a cap

- Limits on campaign expenditure are meant to provide a level-playing field for everyone contesting elections.
 - The 25th Report of the Law Commission on electoral reforms argued that unregulated or under-regulated election financing could lead to “lobbying and capture, where a sort of quid pro quo transpires between big donors and political parties/candidates”.

Argument Against Capping

- **Candidate do not provide true poll expenses:** There is evidence to suggest that candidates may be spending beyond their ceilings.
 - An analysis of expenses for the 2014 Lok Saha elections by the non-profit Association for Democratic Reforms (ADR) found that even though candidates complained that the EC's limits were too low and unrealistic, as many as 176 MPs (33%) had declared election expenses that were less than 50% of the limit in their constituency.
- **Political Parties are not covered:** Recently, the EC has asked the government to amend the Representation of Peoples Act and Rule 90 of The Conduct of Elections Rules, 1961, to introduce a ceiling on campaign expenditure by political parties in the Lok Sabha and Assembly polls.
- **Limit is counter-productive:** Honest candidate who can raise white money openly cannot spend more than ₹70 lakh in parliamentary elections. Whereas candidate with black money usually drive their expenditure underground.

1.8. FREE LEGAL AID IN INDIA

Why in News?

A report titled ‘Quality of Legal Representation: An Empirical Analysis of Free Legal Aid Services in India’ was released by National Law University, Delhi (NLUD).

What is free legal aid?

- Free legal services entail the provision of **free legal aid in civil and criminal matters** for those who cannot afford the services of a lawyer for the conduct of a case or a legal proceeding.
- The instrument of legal aid services across the globe have been recognised as **a part of fundamental human right** under the international instruments, conventions, codes and agreement.
 - Legal aid as a human right is envisaged in Articles 7, 8 and 10 of the Universal Declaration of Human Rights, 1948

Legal Aid in India

- In India, right to free legal aid or free legal service is an essential fundamental right guaranteed by the Constitution. It forms the basis of reasonable, fair and just liberty under Article 21 of the Constitution.

Legal Services' are of two types:

- **Pre-litigation Legal Services:** It includes services such as legal education, legal advice, legal awareness, pre litigation settlements etc. In order to provide pre-litigation services government established or give financial support to law colleges and law faculties in the Universities, Legal aid clinics.
- **Post-litigation Legal Services:** Post litigation legal services includes – appointment of lawyer for poor, reimbursement of process fee, witnesses' expenditure, court fee etc. by the State.

Persons eligible for getting free legal services include

- Women and children.
- Members of SC/ST.
- Industrial Workmen.
- Victims of trafficking in human beings or beggars.
- Victims of mass disaster, violence, flood, drought, earthquake, industrial disaster etc.
- Disabled persons.
- Persons in custody.

- In 1976, government inserted Article 39A with 42nd Amendment act, which directs the State to provide free legal aid by suitable legislation or schemes or in any other way
- To give statutory base to legal aid programmes, parliament passed **Legal Services Authorities Act** in 1987.

Legal Service act, 1987

- This Act came into force on 9th November, 1995 to establish a nationwide uniform network for providing free and competent legal services to the weaker sections of the society on the basis of equal opportunity.
- Under the act, the Central Government constituted **National Legal Services Authority (NALSA)**.
 - The **Central Authority shall consist of the Chief Justice of India who shall be the Patron-in-Chief and a serving or retired Judge of the Supreme Court to be nominated by the President**, in consultation with the Chief Justice of India, who shall be the Executive Chairman
- In every State, a State Legal Services Authority and in every High Court, a High Court Legal Services Committee have been constituted.
 - District Legal Services Authorities, Taluk Legal Services Committees have been constituted in the Districts and most of the Taluks to provide free legal services to the people and conduct Lok Adalats in the State.

Issues in access to legal aid service in India

- **Lack of awareness:** which leads to exploitation and deprivation of rights of the poor.
- **Less number of empanelled lawyers:** A recent report by Commonwealth Human Rights Initiative (CHRI) reveals that there are only five lawyers empanelled for legal aid service on per lakh population.
- **Long pendency:** The average time between application for legal aid and lawyer assigned was 11 days nationally, which stretched to 48 for Rajasthan.
 - The best performers were states such as Andhra Pradesh which took less than a day to allocate a lawyer. Kerala had the highest number of legal aid lawyers per district at 234
- **Per capita spending:** The per capita spending on legal aid in India is just Rs 0.75 (\$0.008 USD). In Australia, it is \$23 and in Argentina \$17.
- **Quality of service:** There is a perception that free service is incompatible with quality service. In recent report by NLUD, about 75% of beneficiaries responded that they opted for free legal aid because they had no means and resources to hire a paid private practitioner. While only 8% opted for quality of legal service by LAC
- **Service fee:** The lawyers are compensated by the government at rates that are below the market average.
- **No legal aid at the police station:** Article 22 of the Constitution guarantees the right to a lawyer for an arrestee, but there is no national scheme for legal aid at the police station, neither do any state have such a scheme.

Function of NALSA

- To **lay down policies and principles for making Legal Services available** under the provisions of the legal service Act.
- To **Monitor and evaluate implementation of the legal aid programmes at periodic intervals** and provide for independent evaluation of programmes and schemes implemented in whole or in part by funds provided under this Act.
- To frame the **most effective and economical schemes** for the purpose of making the legal services available under this act.
- To **utilise the funds at its disposal and make appropriate allocations of funds** to the State authorities and District authorities
- To organise legal aid camps specially on rural areas, slums or labour colonies for **educating weaker sections of society as to their rights**
- Take necessary steps by way of social justice litigation with regard to consumer protection, environmental protection or any other matter of special concern to the weaker sections of the society and for this purpose, **give training to social workers in legal skills.**
- To **encourage the settlement of Disputes by ways of negotiation, conciliation and arbitration**
- To undertake and **promote research in the field of legal services** with special references to need for such services among poor
- To **provide grants in aid for specific schemes** to various voluntary social services institutes working at grass root level specially amongst SC and ST, women and rural and urban labour.

Steps to be taken

- **Public awareness:** Successful legal aid delivery in India requires the government to embark on a campaign to inform and educate the public of its right to free legal aid.
- **Inclusion of all designated senior lawyers:** in the Legal Aid Schemes and requesting them to undertake at certain cases free of charge every year.

- **Better payment:** Payment of better honorarium to the lawyers who provide Legal Aid.
- **Paralegal Volunteers and Panel Lawyers:** There is a need for improvements in selection, training and monitoring of empanelled lawyers.
- **Supporting Innovative Legal Empowerment Initiatives:** Government should support various innovative initiatives of Civil Society Organizations and also provide support to legal aid clinics being run by certain law schools/Institutions.
- **Client feedback:** It is an important element to gauge the quality of legal representation.

1.9. ARBITRATION IN INDIA

Why in news?

Recently, the government has passed **New Delhi International Arbitration Centre (NDIAC) Act** and **Arbitration and Conciliation (Amendment) Act**.

More on NDIAC Act

- The Act envisages NDIAC to **replace International Centre for Alternative Dispute Resolution (ICADR)** as an Institution of National Importance.
- It will facilitate conducting of international and domestic arbitration, mediation and conciliation proceedings in a most professional, cost effective and timely manner.
- It will be headed by a chairperson, who has been a judge of the Supreme Court or a High Court or an eminent person having special knowledge and experience in the administration of arbitration.
- Other objectives of the centre includes:
 - **maintaining panels** of accredited arbitrators, conciliators and mediators through a Chamber of Arbitration.
 - establishing an **Arbitration Academy** for training arbitrators.
 - **promoting studies and reforms** in the field of alternative dispute resolution and related matters.
 - **co-operating** with other societies, institutions and organisations, national or international for promoting alternative dispute resolution.

More on Arbitration and Conciliation (Amendment) Act, 2019

- It was passed by the parliament recently and amends the Arbitration and Conciliation Act, 1996 to deal with domestic and international arbitration.
- Under it, an independent body called the **Arbitration Council of India (ACI)** will be set up for
 - promotion of alternative dispute redressal mechanisms,
 - framing policies for grading arbitral institutions and accrediting arbitrators,
 - maintaining a depository of arbitral judgments made in India and abroad, and
 - maintenance of uniform professional standards for all alternate dispute redressal matters.
- **Appointment of arbitrators** will now be done by the Supreme Court designated arbitral institutions, which was earlier used to be done by parties themselves.
- It seeks to **remove time restriction** for international commercial arbitrations and says tribunals must try to dispose of international arbitration matters within 12 months.
- **Completion of written submissions** to be completed within six months of the appointment of the arbitrators. Earlier there was no time limit.

Arbitration

- It is the settlement of dispute between parties to a contract by a neutral third party (the arbitrator) without resorting to court action.
- It is one of the ways of alternative dispute resolution. Others being mediation, conciliation and Lok Adalats.
- It is confidential, speedier and cheaper than court.
- Arbitral awards are binding and enforceable through courts.

ICADR

- It was **registered as a Society** in May 1995 under the Societies registration Act, 1860 for the promotion and development of ADR facilities.
- A **major drawback** of ICADR, as identified by the Justice Srikrishna Committee, was its **failure in keeping pace** with new developments in the arbitration scenario to match up with the dynamic developments in the field of arbitration globally.
- It **failed to account for the latest developments** in the field of arbitration such as provisions for joinder of parties, consolidation of arbitral proceedings, emergency arbitration, etc.
- Another drawback was a large governing council which made it difficult for the institution to coordinate its governance.

Benefits of Institutionalised Arbitration

The new acts will strengthen the arbitration ecosystem in India and bring many benefits for the country such as:

- time bound settlement of disputes and accountability of the arbitrator.
- **promoting ease of doing business** in India.
- bringing in **quality experts**.
- helping **reduce burden on our courts**.
- **encouraging investors** in India to resolve their disputes in India instead of the currently preferred arbitration centers in London, Singapore and Hong Kong.
- facilitating India becoming a **hub for institutional arbitration**.

1.10. DEMAND FOR LOCAL JOB QUOTAS

Why in news?

Recently, Andhra Pradesh became the first state in the country to offer 75% reservation to locals in private jobs.

Background

- There has been growing demand by the people in the states to have local jobs in their states itself.
 - A survey done by the Centre for the Study of Developing Societies (CSDS) in 2016 showed that nearly two-third of respondents were in favour that state priority should be given to the people from the state itself.
 - This sentiment was more profound in the Southern and the Eastern states.
- Various political parties and states have made attempts to use reservation as a major poll plank.
- In this direction, the Andhra Pradesh assembly passed the **Andhra Pradesh Employment of Local Candidates in Industries/Factories Act, 2019**, under which 75% of the privates jobs across all factories, joint ventures, and industries in the state, including those taken up under public-private partnership mode, will be reserved for **local Andhra people**.
- Similar demands are being raised in other states like Karnataka, Maharashtra, Gujarat, Maharashtra too.
- Recently, **Madhya Pradesh (MP)** also announced that it would bring in legislation to provide 70 per cent reservation in private jobs for locals.

Significance of the move

- **Could Promote Inclusive Development**- like in Germany, where every village has a factory, India also should have industries in villages and provide jobs to the local people for an all-round development. However, there should be an overarching framework at the Union level to promote such development.
- **Could lead to a transparent pattern of industrialisation**- without much scope for corruption and effective implementation of labour laws.

Reasons behind demand for local jobs

- **Agrarian Distress**- the agrarian sector is under tremendous stress across the country, and young people are desperate to move out of the sector.
- **Lack of jobs**- there is a serious dearth of jobs (private and government). Not only are the jobs too few, they are precarious and do not pay well.
- **Displacement of landowners**- Since most of the land requirement is met by acquiring private agricultural lands, the landowners are being displaced and deprived of their occupation and thereby loss of income.
- **Lack of participation of all sections in the workforce**- Several reports like, the State of Working India 2018 released by the Centre for Sustainable Employment of the Azim Premji University --- have shown that discrimination is one of the reasons for under-representation of Dalits and Muslims in the corporate sector.
- **Perception that Central devolution is insufficient**- especially in the southern states, as they feel successive finance commissions accord a high weightage to poverty and population vis-a-vis development thus majority share goes to the northern states.

Analysis

- **May not pass the legal scrutiny**- as the **Article 16** does not empower the state government to provide for such reservation, rather the Parliament is empowered to do so.
- **Politically motivated move**- which rather than addressing the core concerns like **structural reforms, infrastructure** is merely making use of reservations.
- **Dangerous for unity of the country**- Such moves could lead to a **Pandora box** where other states start implementing such policies, which result in fractures in the unity of India.

- **Concerns of the Industry-** Although, most of the units employ locals only, however, there are certain sectors where it may be difficult to find locals for the jobs and the units will be forced to search outside.
- **Difficult to attract investments-** Andhra Pradesh is already struggling to attract investments in different sectors after bifurcation. Such a decision may further alienate the potential investors. Lack of investments could further drop the job creation.
- **Lack of details-** While it defines 'Locals' as candidates who are domiciled in the state of Andhra Pradesh, it does not elaborate on the requirements for 'domicile' status.
- **Previous such efforts were not successful-** such as Maharashtra and Karnataka announced some package on this basis, but they were not enforced.

Way Forward

- **Need to tackle the core issues-** of unemployment by more job creation and industrialisation rather than such moves.
 - Governments should provide **incentives to industries** for more investments and create an enabling environment for it. The Economic Survey 2018-19 also alerts the policy makers against such **policy uncertainties** for the industries, which may rather impact economic development.
 - Government should focus on making the youth of a state employable with proper investments in education, health and skill development.
- **Need to promote labour intensive industries-** to make use of the labour surplus in the country, rather than simply forcing any industry for the locals.
- **Need to promote entrepreneurship-** where people are themselves motivated to create livelihood for them. State can provide incentives and help here such as done for Dalit entrepreneurs in Maharashtra.
- **Need to move towards economy based reservation-** rather than further expansion of reservation policies using unproductive rationales.

1.11. INDIA ENTERPRISE ARCHITECTURE (INDEA) FRAMEWORK

Why in News?

Shillong Declaration on e-governance adopted at the 22nd National Conference on e-Governance (NCeG) talked about India Enterprise Architecture (IndEA).

What is India Enterprise Architecture?

- IndEA, is a framework for **developing a holistic architecture** treating the Government as a single enterprise which are functionally inter-related.
- IndEA **provides a generic framework**, comprising a set of architecture reference models, which can be converted into an integrated architecture,
- With IndEA, there will be **one personalised account for each individual** and he or she can avail all government services from that account. This shall eliminate the need to visit separate sites and have separate logins on them to access government services.

Main principles of IndEA

The following set of principles inform and guide IndEA framework:

- **SDG Linkage:** Performance Measurement Systems are aligned to Sustainable Development Goals prioritized by the Government.
- **Integrated Services** that cut across agency-silos are identified, designed and delivered to realize the vision of ONE Government.
- **Sharing & Reusability**, i.e., all commonly required Applications are abstracted to be built once and deployed across the Whole-of-Government through reuse and sharing.
- **Technology Independence:** Application Design is open standards-based and technology-independent.
- **Data-sharing** across the Government, subject to rights and privileges, so as to prevent development and use of duplicative sets of data by different agencies.
- **Mobile channels are mandatory** for delivery of all services, among all delivery channels.

Envisaged benefits

- Provide a **ONE Government Experience to the citizens and businesses**, by offering integrated services through multiple channels, in a contactless, frictionless manner.

- **Enhance the efficiency of delivery of services**, by defining and enforcing service levels of a very high-order
- **Improve the effectiveness** of implementation of the developmental and welfare schemes through a holistic performance management.
- **Enhance the productivity of employees and agencies** through easy access to information.
- **Provide integrated and cross-cutting services through** seamless interoperability across the Whole-of-Government.
- **Bring in flexibility and agility in making changes** to the systems to align with the best practices and to leverage the latest technologies.
- **Realize cost-effectiveness** through use of shared infrastructure and services.
- Enable establishing a Connected Government that works for inclusive development.
- Maintain the **right balance between security of data and privacy of personal information**.

Challenges

- **IndEA Framework is generic by design.** It cannot be used straightaway by any enterprise. The framework has to be customized to fit the broad requirements of the business vision and objectives of the enterprise.
- **The methods of implementation vary widely across enterprises**, depending on the ecosystem of governance and the current stage of evolution of e-Governance in the enterprise. As such it is difficult to lay down any principles or detailed procedures for the implementation stage
- Enterprise Architecture has intricate dependencies and inter-connections between several parts. It is **not possible to pull out individual components and redesign / implement them in isolation** as it would seriously impair the interoperability and integration capabilities across government

Conclusion

With IndEA, India would be inching closer towards digital governance and establish itself as a knowledge economy as envisaged in the Digital India initiative. To achieve this EA planners should recognize the importance and provide specialized resources and effort adequately in the planning phase.

“You are as strong as your Foundation”

FOUNDATION COURSE

GS PRELIMS CUM MAINS 2020

Approach is to build fundamental concepts and analytical ability in students to enable them to answer questions of Preliminary as well as Mains examination

- Includes comprehensive coverage of all the topics for all the four papers of GS mains , GS Prelims & Essay
- Access to LIVE as well as Recorded Classes on your personal student platform
- Includes All India GS Mains, GS Prelims, CSAT & Essay Test Series
- Our Comprehensive Current Affairs classes of PT 365 and Mains 365 of year 2020 (Online Classes only)
- Includes comprehensive, relevant & updated study material

ONLINE Students

NOTE - Students can watch LIVE video classes of our COURSE on their ONLINE PLATFORM at their homes. The students can ask their doubts and subject queries during the class through LIVE Chat Option. They can also note down their doubts & questions and convey to our classroom mentor at Delhi center and we will respond to the queries through phone/mail.

Post processed videos are uploaded on student's online platform within 24-48 hours of the live class.

DELHI

Regular Batch	Weekend Batch
23 Aug <small>2 PM</small>	18 Sept <small>9 AM</small>
6 July <small>9 AM</small>	

LUCKNOW

13 Aug

PUNE

18 July

JAIPUR

12 Aug

AHMEDABAD

25 July

HYDERABAD

29 July

Scan the QR CODE to download **VISION IAS** app

LIVE ONLINE

CLASSES ALSO AVAILABLE

2. INTERNATIONAL RELATIONS

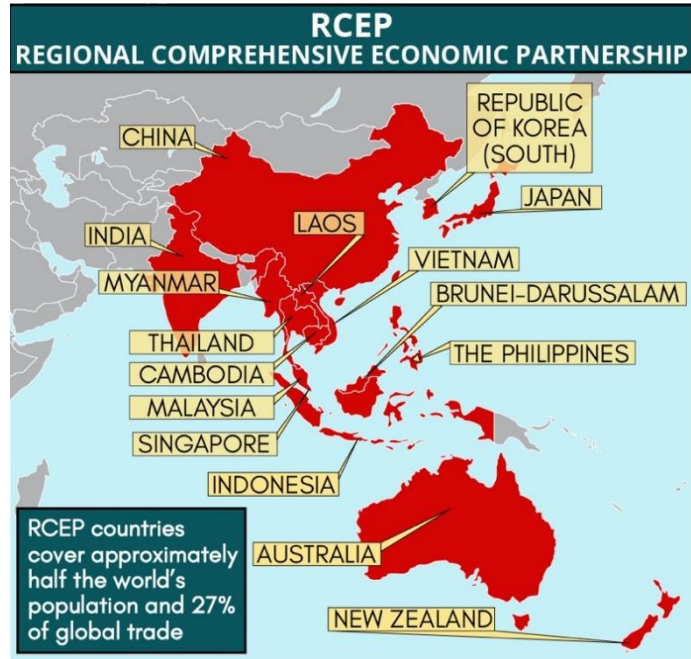
2.1. REGIONAL COMPREHENSIVE ECONOMIC PARTNERSHIP

Why in News?

Currently, the 26th round of negotiations for the RCEP are being held in Melbourne, Australia.

About Regional Comprehensive Economic Partnership (RCEP)

- It is a proposed pact between 10 ASEAN economies and six others (New Zealand, Australia, China, India, Japan, and South Korea) with which the grouping currently has FTAs.
- The objective of launching RCEP negotiations is to achieve a modern, comprehensive, high-quality, and mutually beneficial economic partnership agreement among the ASEAN Member States and ASEAN's FTA partners.
- It is often characterised as a China-led response to the Trans-Pacific Partnership (TPP) put forward by the US.
- RCEP will provide a framework aimed at lowering trade barriers and securing improved market access for goods and services for businesses in the region, through:
 - Recognition to ASEAN Centrality in the emerging regional economic architecture and the interests of ASEAN's FTA partners in enhancing economic integration and strengthening economic cooperation among the participating countries
 - Facilitation of trade and investment and enhanced transparency between the participating countries.
 - Facilitation of SMEs' engagements in global and regional supply chains
 - Broaden and deepen ASEAN's economic engagements with its FTA partners.
- Though talks on seven of the sixteen chapters of the agreement are complete, the key areas of goods, services and investment are still being negotiated.
- Despite pressure to conclude the Regional Comprehensive Economic Partnership (RCEP) trade agreement this year, there is huge differences among members like India-China trade relationship, Australia and New Zealand on labour and environmental protections etc.
- RCEP is likely to be signed by the middle of next year.



Potential of RCEP

- RCEP has the potential to deliver significant opportunities for businesses in the East Asia region making it the world's largest trading bloc.
- 16 RCEP participating countries account for almost half of the world's population
- It contributes about 30 per cent of global GDP and over a quarter of world exports.
- SMEs make up more than 90 per cent of business establishments across all RCEP participating countries.

RCEP compared with Trans-Pacific Partnership (TPP)

- TPP negotiations was led by US while RCEP was led by China.
- The TPP was a more ambitious plan, including market access for goods and services as well as regulations on labour, the environment, intellectual property and state-owned companies.
- The RCEP, on the other hand, is more narrowly focused on standardising tariffs across the region, as well as improving market access for services and investment.
- RCEP includes special provisions for developing economies, such as gradual tariff liberalisation and transition times.
- According to forecasts from the Asian Development Bank in 2016, the TPP had the potential to provide up to US\$400 billion in global income benefits before the US withdrawal, whereas the RCEP's contribution would amount to an estimated US\$260 billion.

How RCEP can be beneficial for India?

- **Market Access:** Owing to its size, it is expected to provide market access for India's goods and services exports and encourage greater investments and technology into India.
- **Enhance MSME sector:** RCEP recognises the importance of being inclusive, especially to enable SMEs leverage on the agreement and cope with challenges arising from globalisation and trade liberalisation. Hence, RCEP would facilitate India's MSMEs to effectively integrate into the regional value and supply chains.
- **Alternative to APEC:** RCEP offers alternative to Asia-Pacific Economic Co-operation (APEC) on economic front in which India has been attempting to join APEC since 1993, but still has not got the membership.
- **FDI gains:** 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.
- **Increase in Trade:** India's engineering trade with RCEP countries reached \$108 billion in 2018 from \$79 billion in 2014. Exports increased from \$15.34 billion to \$17.20 billion in 2018 while imports increased from \$64.28 billion to \$90.95 billion.
- **Increasing hold in Indo-Pacific region:** It provides a platform to India for rebalancing the Asia strategy and an acknowledgement of linkage between the Indian and Pacific Oceans.
- **Aligned with India's initiative**
 - India wants its 'Make in India' to become a global success, it must participate positively to become a part of the Asian value and supply chain which either begins or ends in India.
 - It also aligns with **Act East Policy** which make both economic and strategic sense for India to be the part of the agreement
- **Growth of supply chains:**
 - Signing the RCEP treaty will enable India to **enter the global supply chain** as it will be helped by frictionless movement between 16 members.
 - RCEP may also **encourage regional supply chains** involving BIMSTEC countries and ASEAN members in products that the region specialises in like bamboo and wood products, leather goods, garments, silk, handicrafts and jewellery.
- **Beneficial for labour market:** RCEP will offer India with opportunity to do more labour intensive manufacturing as multinationals would be attracted to set up manufacturing base in India and RCEP membership will enable them to access the large RCEP market.

India's Concerns with RCEP

- **Trade deficit:** India's trade deficits have always widened with nations after signing free-trade-agreements (FTAs) with them. The same is true for India's FTAs with the ASEAN, Japan, Korea, and Singapore, most of which are RCEP nations.
 - India's merchandise trade deficit with the RCEP grouping hit \$105 billion in FY19 (60% of its total deficit).
 - The broad trade flows analysis indicates that the Compounded Annual Growth Rate (CAGR) of imports was 9.06 per cent while for exports, it was 2.90 per cent during the period of 2014-2018, reflecting higher growth of imports than exports.
- **Threat to domestic market:** RCEP members, particularly China, are demanding zero tariffs over 90 per cent tariff lines which is a major concern for India as low cost Chinese manufacturing goods will swamp its domestic market by dumping cheaper goods.
 - A large number of Indian industry including iron and steel, dairy, marine products, electronic products, chemicals and pharmaceuticals and textiles have expressed concerns that proposed tariff elimination under RCEP would render them uncompetitive.
 - India has several sensitive areas of competing interests in agriculture, horticulture and dairy with other non-FTA partners like Australia and New Zealand.
- **Lack of compliance with rules:** The surge in goods imports into India is accentuated by instances of non-adherence to the **Rules of Origin provisions** and lack of full cooperation in investigating and addressing such breaches.
 - India has made tagging the "Country of Origin" on all products a sticking point in RCEP negotiations.

Rules of origin

- They are the criteria needed to determine the national source of a product.
- Their importance is derived from the fact that duties and restrictions in several cases depend upon the source of imports.

- **Competition from China:** It is evident that the size and scale of Chinese manufacturing industry backed with extensive financial and non-financial support provide a clear edge to Chinese manufacturing producers.
 - Product groups such as electrical machinery and equipment and parts thereof, and machinery, mechanical appliances, nuclear reactors are major contributors to India's trade deficit in engineering goods with China.
- **Low labour productivity:** Despite low relative labour cost, labour productivity in India in manufacturing is still one of the lowest in the world, and spatially fragmented labour laws escalate costs of transaction. Under such circumstances, the Indian industry is hardly in a position to compete in a level playing ground in a free-trade region.
- **Strict IPR policy:** The "stringent IP provisions" have been stumbling blocks for a while, with India arguing for these to be taken out of the agreement.
 - The provisions, if adopted, would lead to domestic pharma companies not being able to launch or export affordable life-saving drugs across the world.
 - While in the agriculture sector, farmers would lose the right to save or sell seeds or the harvested produce from plant varieties that have been granted intellectual property.
 - India had negotiated to reject high-level protections at RCEP under the **International Union for the Protection of New Varieties of Plants (UPOV)**, a provision going beyond World Trade Organization, or 'WTO-plus'.

Way Ahead

- **Protect domestic industry:** Given the costs and benefits in RCEP, it is important for India to strike a balance between domestic and external interests to minimise the adverse effects of RCEP on its domestic engineering industry.
 - It is important to grasp the possible opportunities that RCEP will extend to the Indian engineering industry as some of RCEP countries, particularly China, are moving up the value chain and vacating space for other low-cost economies.
- **Use of skilled labour:** India has been insisting on capitalising on its pool of 'skilled' labour force to gain from improved access to employment opportunities in these economies.
 - This has been expected to come about by increasing the ease of movement of professionals through the liberalisation of what is called **Mode 4 in services trade**.
- **Protect tariff structure:** India should continue to maintain its position of proposed dual tariff structure in the RCEP as it will help India to protect its tariff lines which are more vulnerable to cheap Chinese imports.
 - It must emphasise on a special and differential treatment based on stages of economic development.
- **Propose a "non-tariff ecosystem" with China to facilitate exports:** India should try to evolve a framework to negotiate sanitary and phyto-sanitary regulations, technical regulations, conformity assessment systems, sectoral regulations and their compliance frameworks.
 - A specific annexure for non-tariff barriers with China need to be negotiated to protect our export interest to avoid the scope of disguised trade barriers.
- **Restrict Rules of Origin (RoO):** It can be used as a strong instrument in RCEP to curb the free flow of Chinese goods into the domestic market.
 - India should restrict RoO to high value-addition to prevent the imports of cheap Chinese goods, which may come to India through our existing FTA partners.
 - Strict RoO in RCEP will provide a safety wall to domestic producers against cheap Chinese goods.
- **Labour and market reforms:** If domestic industry has to thrive, it needs protection as also the enabling conditions created by factor and product market reforms.
- **Placing suitable safeguards:** Within the FTA, provision should be made for safeguard measures like anti-dumping etc. which should be invoked if a volume or price trigger for the concerned products is reached.

Mode 4 in services trade

- The movement of natural persons is one of the four ways through which services can be supplied internationally.
- Otherwise known as "Mode 4", it covers natural persons who are either service suppliers (such as independent professionals) or who work for a service supplier and who are present in another WTO member to supply a service.

2.2. INDIA-CHINA RELATIONS

Why in news?

Recently, China objected to **India's internal move on Kashmir** and sided with Pakistan's views on the same.

More on the news-

- The External Affairs Minister of India has conveyed to the Chinese counterpart that India's decisions on Jammu and Kashmir are the country's "**internal**" matter and have no implication for either the external boundaries of India or the Line of Actual Control (LAC) with China.
- It was also conveyed that both countries should ensure that bilateral differences should not become disputes and emphasised that the future of the ties will depend on the mutual sensitivity to each other's "**core concerns**".

Areas of Cooperation

- **Economic Relations-** India-China trade has increased from mere 3bn\$ in 2000 to **\$66.4 billion** in 2018.
 - India is the 7th largest export destination for Chinese products, and the 27th largest exporter to China.
 - These relations are shaped through various dialogue mechanism such as Joint Economic Group led by the Commerce Ministers of both sides
- **Strategic Cooperation-** Both countries are part of groupings such as the BRICS, the Shanghai Cooperation Organisation (SCO), the Russia-India-China (RIC) among others.
 - In the Doha Round of World Trade Organisation (WTO) negotiation, India and China coordinated their stands on several issues.
 - Both have advocated **democratization of international institutions** such as World Bank, IMF, etc.
 - India is involved in the discussions of **Regional Comprehensive Economic Partnership (RCEP)** with 14 other Asia Pacific countries.
- **Political Engagement-** there are regular visits of **heads of states** from both the countries. The Foreign Ministers have been meeting regularly.
- **Cultural Relations-** cut across from long historical bonds (e.g. Silk Route) to recent celebrations of events like Colors of India Festival in China. These relations include elements like Yoga, Bollywood and Buddhist events.
- **Education Relations-** India and China signed Education Exchange Programme (EEP) in 2006, which is an umbrella agreement for educational cooperation between the two countries.
- **Large Diaspora-** The Indian community in China is growing. Present estimates put the community strength to around 35,500.

Contentious Issues between the two countries

- **Border Disputes:** India and China share about 3,488-km long border, which is yet to be fully delineated and both nations have faced border incursions/intrusions. There are many contentious regions between the two countries like Arunachal Pradesh.
 - **Arunachal Pradesh and Stapled Visa:** China issues stapled visa to residents of Arunachal Pradesh and had also announced "standardised" official names for six places in Arunachal Pradesh because it considers Arunachal Pradesh as part of Tibet.
 - **The Dalai Lama and Tibet:** The Dalai Lama formed a Tibetan government in exile, which still functions without any real authority over the people. More recently India changed the venue of "Thank You India" programmes considering China's concerns with this.
- **Trade imbalance:** Trade imbalance between the two countries is skewed in China's favour and it has a trade surplus of **\$41.2 billion** in the nine months to December 2019.

China- Pak Axis and its impact on India

- **Dispute over Kashmir-** China reiterated Pakistan's position and called India's move to abolish Kashmir's special status "**not acceptable**" and it was not binding.
- **China-Pakistan-Economic-Corridor (CPEC):** India considers building of the CPEC as China's interference in India's sovereignty and territorial integrity. But China has not deterred from going ahead.
- **Designation of Terrorists-** China has repeatedly blocked the UN Security Council resolution to designate Jaish-e-Mohammad (JeM) chief **Masood Azhar** as a global terrorist.
- **Nuclear Suppliers Group:** China has been blocking India's attempt to entry to NSG to build a case for Pakistan.

- **Concerns over RCEP-** India fears that it has to give large trade concessions to Chinese imports which will further widen the trade deficit.
- **Chinese Initiatives:** There are many Chinese initiatives that India is suspicious about to
 - **Belt and Road Initiative:** India boycotted the Belt and Road Initiative (BRI) summit held in Beijing in 2017, which even Chinese adversaries such as Japan and the United States attended.
 - **String of pearls:** It is a Chinese policy to encircle India by building ports and naval bases around India's maritime reaches such as Cocos Island in Myanmar, Chittagong in Bangladesh, Hambantota (Sri Lanka), Marao Atoll (Maldives) and Gwadar (Pakistan). India, on the other hand, has been trying to develop closer arrangements with the countries surrounding China such as Japan, South Korea and Vietnam and also with the central Asian neighbours of China.
- **Proximity with US-** India has been siding with US in various domains including increased defence participation and the activities in Indo-Pacific. These developments have concerned China.
 - **5G Trials-** India is due to hold trials for installing a next-generation 5G cellular network in the next few months. India has been considering to side with US in these efforts. China has told India not to block its **Huawei Technologies** from doing business in the country, warning there could be consequences for Indian firms operating in China.
- **River Water Dispute:** China has been building dams (Jiexu, Zangmu and Jiacha) in the upper reaches of the Brahmaputra which is called Tsangpo in Tibet. India has objected to it but there has been no formal treaty over sharing of the Brahmaputra water.
- **Bhutan and Nepal:** China has been critical of India's role in and its relationship with Bhutan and Nepal while India has a long tradition of cultural and trade exchanges with both Nepal and Bhutan and has a security arrangement with Bhutan for protection of its borders. India's role in **Doklam** (2016) escalated the situation towards armed conflict between the two countries.

Way Forward

- There is a need to **control negative publicity** in the relationship. In times of fast and interactive engagement through social media, it is the responsibility of media to convey **real information**.
 - In future, deeper engagements between the media persons of the two countries would be necessary for improving the image of the two countries.
- The **academia** needs to be proactively involved. A comprehensive and substantial study of each other's national and social conditions is necessary to strengthen cooperation.
- The **cultural industry**, including tourism, entertainment, publications, Internet service sectors, needs to be targeted.
- Both countries should work on the new **Panchsheel** with focus on Shared vision, Better communications, Strong relationship, Shared thought process and Shared resolve.

Recent Steps taken for improving the relations

- **Confidence Building Measures-** Both countries have signed MoUs on regular defence exchanges and sharing of information of rivers among other things.
- **Track II Diplomacy-** Since, 2005 various informal dialogues have been taking place between different organisations. E.g. an MOU was signed between the Chinese Academy of Social Sciences and India's Ministry of External Affairs to start a series of **think tank dialogues** between the countries.
- **Wuhan Spirit-** This informal summit took place between President Xi Jinping and Prime Minister Narendra Modi. Both countries agreed to work on each of the contentious issue.
- **STRENGTH Strategy-** the Indian Prime Minister has given this strategy which stands for **Spirituality; Tradition, trade and Technology; Relationship; Entertainment; Nature conservation; Games; Tourism and Health and Healing.**

2.3. US-CHINA TRADE WAR

Why in News?

Recently, US formally labeled China a currency manipulator, further escalating its trade war with China.

More about news

- It's the **first time that the US labeled a country a manipulator since the 1990s**, when China was also the target.
- The move came after the People's Bank of China (PBOC), the central bank of **China**, **allowed the yuan to suddenly depreciate** relative to the dollar by 1.9 per cent — one of the biggest single-day falls.

What is currency manipulator?

Currency manipulation happens when governments try to artificially tweak the exchange rate to gain an "unfair" advantage in trade.



- It signaled that the **ongoing trade war between the world's two biggest economies** was now turning into a currency war as well.

Background of US-China trade war

- The US and China trade is **heavily skewed in favour of the China**. In 2018, the **US had a trade deficit of \$419.2 billion** with China.
- In August, 2017, US President Trump asked US Trade Representative to begin an investigation for **possible tariff hikes on Chinese goods**.
 - It promptly started in January 2018, when Trump imposed a 30 per cent tariff on foreign solar panels and 20 per cent tariff on the first 1.2 million washing machines imported during the year. Both the moves **primarily hurt Chinese interests**.
 - US imposed **heavy tariffs on imported steel and aluminium items from China** and it responded by imposing **tit-for-tat tariffs on billions of dollars worth of American imports**.
- The dispute **escalated in to trade war** in which US demanded **China to reduce US \$375 billion trade deficit**, and introduce “verifiable measures” for **protection of Intellectual Property Rights, technology transfer, and more access to American goods in Chinese markets**.
- **Made in China 2025** also drew the ire of US because of its focus on making China the dominant player in emerging fields of technology and manufacturing, as well as its support for domestic firms with subsidies.

Global Impact of trade war

- **Lower world GDP:** In a report earlier this year, the IMF noted that the US-China trade tension was one factor that contributed to a “**significantly weakened global expansion**” late last year, as it cut its global growth forecast for 2019.
 - According to a Bloomberg Economics report, uncertainty over trade could **lower world gross domestic product by 0.6 per cent in 2021** compared to a no-trade-war scenario.
 - If US and China continue to raise tariff and non-tariff barriers, the global economic growth rate will fall to a seven-year low of 2.8% and worse still, the world economy could enter a recession in near future.
- **Impact on currencies:** These tensions can shift “tariff war” to a potential “currency war”. It leads to greater risks not only for those trading in US and Chinese currencies or their stocks (over 60% of global financial investors), but also for capital flows between emerging markets that tend to peg the value of their own currencies to the dollar.
- **Coupling with BREXIT:** Ongoing trade tensions between the US and China, and the uncertainty due to Brexit have impacted European countries exports badly especially on Germany which is the world's third-biggest trader after the US and China.
- **Restructuring of Global value chains (GVCs):** Machinery, electronics, and computer equipment account for 60% of US imports from China. These are made via GVCs that share production across a dozen or so countries. Less demand from the US would mean China buying fewer components and sub-assembly units from Japan, South Korea, Vietnam and Thailand. This will shrink trade and weaken the GVC model.
- **Gain for textile industries in South Asia:** Textile imports of US have shifted from China towards other countries in South Asia with Vietnam and Bangladesh witnessing larger increase in exports to USA.
 - Alternatively, cotton imports from USA to China have declined for the first half of 2019 and imports from other countries including Brazil, Australia and India have increased.
- **Weakened WTO:** The US steel and aluminium measures in March 2018 on frivolous grounds of national security was a violation of the WTO spirit.
 - The US has no interest in pursuing the WTO's agreed Doha agenda. By not allowing the appointment of an Appellate Body judges, it is strangulating the WTO's dispute panel.

Implications for India

In comparison with US-China trade, India's total trade with the US was just \$ 142 billion in 2018. The size of India-US trade is less than one fifth of US-China trade. However, this could change to India's advantage as US China trade war has opened new avenues for other countries.

- **Positive**
 - **Growth in exports:** As per a UNCTAD report, India is likely to increase its exports by as much as \$11 billion in the long term due to the fall out between the US and China. The increase would come in

items that are currently being imported from China where US companies do not have the competitive edge to match India.

- ✓ Indian exports would gain in China for the goods that it today imports from the US.
- ✓ India's exports to China have grown much faster than to US post the trade war between the two largest economies.
- **Benefit to some domestic companies:** India has benefitted from US-China trade war by exporting more to China like plastic, cotton, inorganic chemicals and fish. India has a revealed comparative advantage in some of these commodities.
 - ✓ Indian exporters can take advantages in three distinct sectors: garments, information communication and technology (ICT) and to some extent in automotive components.
- **Increased FDI:** There could be increased investment and capital flow between India and the US and India and China as China and the US seek to disentangle themselves.
 - ✓ Chinese companies have in recent times made a beeline to invest in India especially in the area of telecommunications.
- **Benefit to Steel sector:** The US is the world's biggest steel importing country and India's has been a bright spot in the global steel industry for long—growing steadily year on year without a break, and the potential for future growth is also very high.
- **Negative**
 - **Value of the Rupee:** Due to weakening of the US dollar, which automatically creates a negative impact on the trade deficit of India, causing a chain reaction of sorts.
 - **Indian stock markets:** Amid concerns over the global trade war, key indices in the Indian share market dropped due to the cautious approach of the investors.
 - **India-US duties:** As the United States of America imposed duties on steel and aluminium, India now has to pay approximately \$241 million worth of tax to the US.
 - ✓ As far as the manufacturing industry is concerned, the additional duty imposed could have a detrimental impact, as **the cost of production will go up** due to the **rise in the price of raw materials**.

Conclusion

In the wake of US-China trade war, the opportunities and challenges have been created, India needs to double-down on engaging with US and sorting out things on the trade front. Also, the right step has been taken in which India is keen to increase its market share in both countries and has carried out a detailed analysis identifying items where there is potential to increase exports.

2.4. NATO ALLY-LIKE STATUS

Why in news?

The US Senate has passed a binding legislation to accord India the same status as its other NATO allies — South Korea, Japan and Australia.

More on news

- It will be part of the **National Defense Authorisation Act** for the current fiscal 2020.
- The legislation paves the way for improved maritime security and advanced technology transfer between the two countries.
- India and USA over the years have strengthened their defence relations thorough various agreements such as:
 - Signed the Logistics Exchange Memorandum of Agreement (**LEMOA**).
 - Signed the Communications, Compatibility and Security Agreement (**COMCASA**).
 - India has special status of a **Major Defence Partner** to the US, by virtue of the National Defence Authorisation of 2017.
- But, India was still at best equivalent to other **Major non-NATO allies (MNNA)** of the US.

About NATO

- It is an **intergovernmental military alliance** between 29 North American and European countries.
- It implements the **North Atlantic Treaty** that was signed on 4 April 1949.
- It constitutes a **system of collective defence** whereby its independent member states agree to mutual defence in response to an attack by any external party.
- NATO's defence commitments overseas have evolved from fighting Communism to Islamist extremism, with its involvement in conflicts like Kosovo, Afghanistan, Mediterranean waters and Iraq, especially after 9/11.
- **Major non-NATO ally (MNNA)** is a designation given by the United States government to close allies that have strategic working relationships with the US Armed Forces but are **not member of the NATO**.

- Upon enactment, the NDAA will thus ensure that the US State Department treats India as a non-member NATO ally for the purposes of the Arms Export Control Act.

Significance of this move

- **Defence benefits for India-** such as
 - Make India eligible for entry into cooperative **research and development projects** with the Department of Defense (DoD) on a shared-cost basis.
 - Enable Purchase of depleted **Uranium anti-tank rounds**.
 - Give India a **Priority delivery** of ships and military ration.
 - Allow possession of **War Reserve Stocks** of Department of Defence owned equipment that are kept outside of American military bases
- **Leaves no scope of ambiguity-** NDAA clarifies in greater detail what the closer defence cooperation actually means and entails between the two countries.
- **Highlights India's stature-** and shows the faith and centrality of India in the USA's scheme of things in the times to come.
- **Ensures enduring relation-** between India and USA which helps India to maintain a strategic autonomy on various other issues like climate change, trade etc.
- **Edge over Pakistan-** in terms of relation with NATO and US, which have been falling over time (**Refer the box**). As China ramps up its alliance with Pakistan, having the perks of a NATO ally can help advance India's national security and defence commitments.
- **Boost cooperation in Indo-Pacific-** This adjustment to US law will further allow the US-India partnership to flourish in line with security commitments to the Indo-Pacific region.
- **Does not impose burden on India-** As opposed to member nations who have to fund NATO, major non-NATO allies (MNNAs) and NATO allies are only involved in strategic working partnerships with NATO countries.

Challenges faced by the NATO

- **Handling of US-Russia Conflicts-**
 - US has formally declared its intent to withdraw the **Intermediate-Range Nuclear Forces (INF) Treaty**, which prevents the United States and Russia from fielding ground-based missiles with ranges between 500 and 5,500 kilometers.
 - Russia has deployed some of its missiles, after it accused the NATO deployment in its spheres of influence.
- **Containing the Chinese growth-** especially its expansion in Indo-Pacific and its assertiveness in Africa and Middle East.
- **Reducing enthusiasm of the US-**
 - US President Donald Trump called the alliance "obsolete", casting the future of US involvement in the group into doubt.
 - He has also complained about the bulk of NATO's budget being funded by the US, resulting in a landmark resolution to withdraw the US from the organisation, which was defeated.
- **US decision to withdraw from Afghanistan-** has caused concerns among other NATO partners.
- **Need to learn the new art of security** and new domains such as space security, cyber security.

NATO-Pak Relationship over time

- Pakistan received the status of **Major non-NATO Ally** from the US in 2001.
- Apart from receiving funding and defence equipment, Pakistan participated in the following activities of NATO-
 - Pakistan Military and NATO established the **Joint Intelligence Operation Centre**.
 - Pakistan has opened ground and airlines of communication to re-supply NATO mission.
- However, the US in 2017 downgraded regional rival Pakistan's status as an MNNA, citing the harbouring of Osama bin Laden and financing of terror, besides suspending \$1.66 bn worth of military aid.

2.5. INDIA-UK RELATIONS

Why in News?

India and the UK have agreed to set up **three new bilateral working groups to tackle barriers to trade in specific sectors** of food and drink, healthcare and data services as part of the 13th **Joint Economic and Trade Committee (JETCO) meeting**.

More about news

- The three new business-led working groups will be run by **the UK India Business Council (UKIBC)** alongside the **Confederation of Indian Industry (CII)** and **Federation of Indian Chambers of Commerce and Industry (FICCI)**.

- The three groups will **identify solutions to the key issues in each sector**, making recommendations directly to the UK and Indian ministers.
- The three new bilateral working groups were launched as part of the **13th Joint Economic and Trade Committee (JETCO) meeting**.

India-UK relations

- **Economic:**
 - UK-India trade continues to increase, over the last three years, between 2015-2018, total trade between the UK and India has **increased by 27%**.
 - UK is the **4th largest inward investor in India**, after Mauritius, Singapore and Japan, accounting for **around 7% of all foreign direct investment into India**.
 - India continued to be the **third largest investor in the UK and emerged as the second largest international job creator with Indian companies** having created over 110,000 jobs in the UK.
- **Education:** Over the last 10 years, the relationship has grown substantially with the introduction of bilateral mechanisms such as the **India-UK Education Forum, UK-India Education and Research Initiative (UKIERI), Joint Working Group on Education, Newton-Bhabha Fund and Scholarship schemes**.
- **Science and Technology:** Joint investment in UK-India research has been growing.
 - **India-UK Clean Energy R&D Centre** with a focus on solar energy storage and a collaborative R&D programme in energy efficient building materials were announced.
 - New research partnerships worth £80 million including a new **Joint Strategic group on Anti-Microbial Resistance (AMR)** with a joint investment of up to £13 million have also been established.
- **Cultural ties:** For Indian tourists, the UK is the fifth most-popular destination.

Challenges

- **Restrictive immigration policies:** India has been asking for an ease in visa rules but the UK has been hardening its stance on the issue.

Bilateral Institutional Mechanisms between India & UK

- **India-UK Joint Economic and Trade Committee (JETCO):** The JETCO was established on January 13, 2005 to develop a strategic economic relationship following the Joint Declaration “India-UK towards a new and dynamic partnership” between the then Prime Ministers of the two countries in September 2004.
- **India-UK Economic and Financial Dialogue (EFD):** The objective is to strengthen the financial and economic relationship between India and the UK, in the light of each country’s economic policy agenda and within a global economic perspective.
- **India-UK Financial Partnership (IUKFP):** It will strengthen links between the Financial Services industries of both countries and deepen cooperation between London and Mumbai, two of the World’s leading Financial Centres
- **India-UK CEO’s Forum:** Objective of the forum is making recommendations to Governments for increasing the level of bilateral trade and investment between the two countries

UK India Business Council (UKIBC)

- The UKIBC, a membership-based non-profit body set up to promote the UK-India economic partnership, plays the **role of a Secretariat for the JETCO talks and provides a forum for UK companies** to enhance their links and develop new partnerships with Indian businesses.

Recent Development

- **UK-India Tech Partnership:** It will pair businesses, universities and others from different regions in the UK with states in India.
- **Access India Programme:** High Commission of India, London initiated the ‘Access India Programme’ in September 2017 for facilitating investments by UK SMEs in India.
 - The primary focus of the AIP programme is on companies interested in investing in India i.e. those intending to set up manufacturing facilities as part of the ‘Make in India’ initiative.
- **Rupee-denominated bonds:** Over \$3.5 billion of rupee-denominated bonds have been issued in London since July 2016 including by HDFC, NTPC and NHAI.
- **Green Bonds:** Indian Railway Finance Corporation (IRFC) has raised \$500 million via a green bond offering and listed these instruments on the London Stock Exchange.
- **National Investment and Infrastructure Fund:** Both Governments have committed an anchor investment of up to £120 million each in the India-UK Sub- Fund under the National Investment and Infrastructure Fund.
- **Varanasi Smart City Development Plan:** New technical assistance for the redevelopment of Varanasi railway station under the Varanasi Smart City Development Plan will be extended by the UK.
- **Supporting the Start-up India initiative:** UK will be investing £160 million across 75 start-up enterprises, apart from an additional £20million for a Start-Up India Venture Capital Fund.
- **First bond index series:** State Bank of India (SBI) launched India’s first bond index series for overseas investors at the London Stock Exchange (LSE) on 22 September 2017.

- The recent exclusion of India by the UK Home Office from a new list of low-risk countries with relaxed student visa rules is a case in point.
- **Decreasing Indian students:** The number of Indian students coming to the UK halved from about 40,000 in 2009-10 to 20,000 in 2017-18: far fewer than those opting to study in the US, Canada, Australia or New Zealand.
- **Inclination towards China:** India was being treated less favourably than China. For e.g. UK pilot scheme introduced in 2016 gave Chinese nationals access to a multiple entry visa almost four times cheaper than that available to Indian citizens.
- **Treatment towards former colonies:** At the heart of the problem is a lingering colonial mindset that still informs British foreign policy treating former colonies simply as markets to be mined.
 - The reality that countries like India are now major economic powers in their own right and expect to be treated as equal partners in accordance with their new status has not fully sunk in.

Way Ahead

- **Collaboration of India and UK in the realm of investment and business** can truly transform both the nation's entrepreneurial ecosystem.
- It is essential for both the parts to **become proactive and prompt in finalizing the bilateral agreement** to rejuvenate the existing bilateral trade between India and UK.
- Both nations should **continuously meet and engage in discussions** related to mitigating bilateral trade issues, defense ties, renewable energy, skill development and other vital areas.
- There is a **huge scope in areas like education and skill development, smart cities and technological collaboration, advanced manufacturing** and engineering among others.
- **Close involvement and consultation with UK and Indian businesses**, especially SMEs that already export, to find out what would make them import/export more between the UK and India;
- An India-UK Free Trade Agreement would, no doubt, boost trade by lowering tariffs and aligning standards. So the **Joint Trade Review (JTR)** being undertaken by the UK and Indian governments is an important initiative, which will secure quicker wins, while laying the foundations for a deeper and broader trade deal after the UK leaves the EU.
- This **use of digital technology** could open opportunities for India to provide exported services in **tele-medicine, tele-surgery and tele-diagnosis**; along with healthcare-related process outsourcing services such as transcription.

2.6. INDIA-FRANCE

Why in News?

Recent Indian Prime Minister's visit to France for a bilateral summit marked a further consolidation of the strong Indo-French strategic ties.

More about News

- The discussions broadly focussed on **reaffirming France and India as the key strategic** and like-minded partners, strengthening of the defence partnership — including future defence acquisitions, progress on set up of the Jaitapur nuclear power plant, convergent, strategic and political priorities in the Indo-Pacific.
- **In the digital space**, the two countries have adopted a **cybersecurity and digital technology road map**.
 - A **Cooperation Agreement** was signed between the Centre for Development of Advanced Computing and Atos for developing cooperation in fields of **quantum computing, Artificial Intelligence and exascale supercomputing**.

Recent developments

- Both countries signed **Mutual Logistics Support Agreement**, enables Indian naval warships to now seek access to the French naval base in Djibouti to refuel for an operational turnaround to return to Indian shores.
- Both countries have planned the **launch of 8-10 satellites** as part of a "constellation" for maritime surveillance in the Indian Ocean region.
- CNES concluded an agreement with ISRO for training programmes and bioastronautics for a **human space flight- (Gaganyaan) by 2022**.
- The Indian Railway Station Development Corporation (IRSDC) entered into a Tripartite Agreement with French National Railways (SNCF) & AFD, a French development agency in **order to support Railway Station Development Program in India**.

Areas of cooperation

- **Maritime security cooperation/ Indo-Pacific region:**
 - **Conduct of bilateral naval Exercise Varuna** and **exchange of information in the area of maritime surveillance**
 - **Heightened cooperation at multilateral bodies:** For e.g. India support to France's candidacy at the **Indian Ocean Rim Association (IORA)**; France's chairing of the **Indian Ocean Naval Symposium (IONS) in 2020**, will be an opportunity to closely associate India with France's priorities.
 - **French military bases** in Djibouti, Abu Dhabi, and Reunion Island can be a force multiplier for India, which itself is looking to build naval facilities in Oman (Duqm), Mauritius and Seychelles (Assumption Island).
- **Space**
 - **2015 MoU signed between the French (CNES) and Indian (ISRO) space agencies** enriched cooperation projects.
 - ✓ It led to the finalizing of a joint mission of **India's Oceansat-3 satellite** hosting France's Argos system for climate monitoring and tracking, scheduled to be launched in 2019.
 - ✓ It has also resulted in the **third jointly developed satellite, Trishna**, for thermal infrared imaging.
 - ✓ France is also considering contributing to India's space agency, **ISRO's, upcoming inter-planetary missions to Mars and Venus.**
 - **The ambitious Joint Vision for Space Cooperation signed in 2018** paved the way for coordinating **space and maritime collaborations** and enabled the commencement of work on a constellation of micro-satellites for maritime surveillance.
- **Political/foreign relations:** France has emerged as India's one of the most reliable partner on issues relating to terrorism and Kashmir.
 - France supports India's candidacy for a seat as a **permanent member of the United Nations Security Council** and **supported multilateral export control regimes** (accession to MTCR in June 2016, Wassenaar Arrangement in 2017, the Australia Group in January 2018).
- **Defence relations:**
 - France and its defence industry actively **contribute to the "Make in India" programme in the defence sector.**
 - The **first conventional submarine, Scorpene**, which started being built in India in 2008 with transfer of technology and support from DCNS, began sea trials in 2015, and the second in January 2017.
 - An agreement on India's acquisition of **36 Rafale fighter** jets was concluded in September 2016.
- **Counter terrorism:** Terror strikes in France in recent years by home-grown terrorists have enlarged the scope of counter-terrorism cooperation to include cyber security and discussions on radicalisation.
- **Bilateral Trade in Goods:** In 2018, India-France bilateral trade stood at € 11.52 billion (+7.60%) as compared to the corresponding period the previous year. India's exports to France were valued at € 5.99 billion, up 11.77% during this period with a rise in exports.
- **French Investments in India:** France has emerged as a major source of FDI for India. France is the 10th largest foreign investor in India.
 - France is focussing on Chandigarh, Nagpur and Puducherry under the **flagship programme of Smart Cities.**
- **Nuclear field:** In the nuclear field, an agreement was signed about a decade ago for building six EPR nuclear power reactors with a total capacity of 9.6 GW for which negotiations have been ongoing between the Nuclear Power Corporation of India (NPCIL) and Areva, and now EdF.
 - The agreement on the industrial way forward between NPCIL and EdF affirms that work at Jaitapur will commence before the end of 2018.
- **Educational relations:** Potentially, the most significant was the focus on youth and student exchanges. Currently about 2,500 Indians go to France annually to pursue higher education, compared to more than 250,000 from China.
- **Tourism:** A target of a million Indian tourists and 335,000 French tourists has been set for 2020.
- **Combating climate change:** France and India actively strengthened their cooperation under the 2015 Paris Agreement on Climate Change. Together, they spearhead the implementation of this Agreement. They jointly launched the **International Solar Alliance.**

Conclusion

This is a time for nations like India and France to take the lead and shape the narratives as well as the emerging institutional frameworks. The visit gives immense possibilities which exist in Indo-French bilateral partnership and there are growing signs that the political leadership in both countries are keen to exploit them.

2.7. NO FIRST USE DOCTRINE

Why in News?

Union Defence Minister recently said that India reserves the right to change its policy of 'No First Use', based on future circumstances which has been the cornerstone of India's nuclear weapons policy for decades.

Background

- **"No First Use" is a pledge** taken by a country to not use nuclear weapons as a means of warfare unless a rival nation resorts to such an action first.
- These policies are generally declaratory in nature and there is no diplomatic arrangement in place to either verify or enforce it.
 - Those that have pledged can still use nuclear weapons first in a conflict.
- **India adopted the "No First Use" policy after the Pokhran II tests in 1998**, asserting that its newly acquired arsenal will be used only as a deterrent.
- In recent times, many important leaders have called for the policy to be scrapped.
 - Late Defence Minister Manohar Parrikar said in November 2016 that India should not "bind itself" through such a pledge
 - Lieutenant General BS Nagpal, former commander-in-chief of the Strategic Forces Command, recently described it as a "formula for disaster".

No first use policy in other country

- **China was the first to pass** such a resolution after it became a nuclear power in 1964, portraying it as an indication of the "purely self-defensive nature" of the country's nuclear strategy.
- The United States has **never declared a NFU policy**.
- In 1982, Soviet Union pledged that Moscow would have an NFU policy and not launch a nuclear weapon during conflict. However, in 1993, Russia did away with the stance and like other states said that it would not use nuclear weapons against other countries who do not possess nuclear arsenal.
- Pakistan has made no such commitment.
- As of today, **China and India are the only nuclear weapon states that have maintained an unconditional NFU pledge**.

Significance of NFU for India

- **Create image of India as responsible nuclear power:** Diplomats have often advanced the country's commitment not to use nuclear weapons first as proof of the country being a "responsible" state and thereby a way to resist any pressures to sign any treaties that would affect its nuclear arsenal. It also helped India to get NSG waiver, entry into exclusive nuclear groups such as MTCR and Australia group.
- **To avoid conventional war:** Conventional wars have been avoided between India and Pakistan in the year 2001 at the backdrop of Parliament attack and in 2008 after the Mumbai terrorist attack due India's commitment to NFU policy as against the unclear nuclear policy of Pakistan.
- **First strike requires survivable second-strike capability:** A first use posture still requires a country to have survivable second-strike capability as there is nothing such as a "splendid" first strike implying 100% removal of the adversary's assets and leadership.

India's Nuclear Doctrine

- **On 4th January 2003 India's official nuclear doctrine was released.** It spelled out two of the contingencies under which nuclear weapons were to be used
 - When Indian territory is under a nuclear attack, or
 - Indian forces that may be outside India are under attack.
- The Indian doctrine also stated that it will **not use nuclear weapons against non-nuclear-powered states**, and would strictly control the export of such materials and technologies.
- The **onus of authorising retaliatory attacks was placed on the civilian political leadership**, led by the Prime Minister.
- However, the doctrine included one additional and significant, caveat: "in the event of a major attack against India, or Indian forces anywhere, by biological or chemical weapons, India will retain the option of retaliating with nuclear weapons".
- **India remains committed to the goal of a nuclear weapon's free world**, through global, verifiable and non-discriminatory nuclear disarmament.

- **Civilian control:** This ensure that command and control stay firmly with the civilian political leadership.
- **Global No First Use (GNFU) order:** NFU for India also presents an opportunity for cooperation with China to work jointly towards a Global No First Use (GNFU) order. Notably, there is considerable convergence regarding the belief of nuclear weapons being restricted to the political realm.

Reason for calls for change in stance

- **Conventional power of China:** NFU policy suits a power which wants to deter just nuclear wars. It doesn't suit a state who is not so stronger in conventional (or, more broadly, non-nuclear) front with respect to its adversaries. The conventional disparity between India and China is not just huge but also more palpable. This is putting immense pressure on India's NFU policy.
- **Pakistan's Tactical Nuke threats:** Time and again Pakistan keeps talking about the use of tactical nuclear weapons (TNW) against the Indian forces if any attempt is made to enter its territory. Also, India's conventional advantage has been blunted by Pakistan via use of sub-conventional assets such as terrorists
- **India would have to suffer a first strike before it retaliated:** It is argued that NFU doctrine is not ideal when India is on a two-front war with both China and Pakistan and they simultaneously launch offensives.

Challenges India might face in changing stance

- **India's Image:** Reconsidering NFU policy may adversely damage India's long earned reputation as a responsible state.
- **Affect India's relation with neighbour:** Adopting a first strike policy will affect India's relationship with neighbours like Bangladesh, Nepal, Sri Lanka, Myanmar, Bhutan as they will start fearing India. Here they can also go closer to China as it can be an alternative protector of them due to its commitment to NFU policy till today.
- **Existing nuclear structure:** If India has to switch from NFU, it will have to make substantial changes to existing nuclear structures, alert levels, deployment and command and control arrangements. This will involve a sizeable increase in delivery systems and warheads.
- **China may also revise its NFU Policy:** If India changes its NFU policy, it gives China opportunity to revise its own NFU policy, leading to more tension in South Asia.

Conclusion

All doctrines need periodic reviews and India's nuclear doctrine is no exception. With the rapidly changing strategic environment if India's policymakers feel the need to review the nation's nuclear doctrine, they should be cognizant of the costs involved in so doing. A sound policy debate can only ensure if the costs and benefits of a purported policy shift are discussed and debated widely.

2.8. INDIA: CLIMATE DIPLOMACY

Why in news?

Recently, the Union Minister for Environment, Forest and Climate Change, attended the Ministerial conference of BRICS and BASIC (Brazil, South Africa, India and China) countries in Sao Paulo, Brazil.

Background

- India has transitioned from a protest voice on the fringes of global environmental policy to one that is actively shaping global environmental efforts.
- In terms of India's efforts in reducing its emissions relative to its economic growth, it is a fairly positive story. Even the World Bank praised India's success in renewable energy auctions that delivered record-setting low prices for solar power.

About Climate Diplomacy

- In political ecology and environmental policy, climate governance is the diplomacy, mechanisms and response measures "aimed at steering social systems towards preventing, mitigating or adapting to the risks posed by climate change.
- Climate policy has become the **locus of current global environmental governance efforts.**

India's growing foot print in Climate Diplomacy

- **Leading in Global efforts:** India is on track to meet a majority of its Paris goals and become a global climate leader by meeting its targets a decade earlier, as said by the US-based Institute for Energy Economics and Financial Analysis (IEEFA).
 - Similarly, the recent BRICS ministerial on Environment has agreed to include "**Green Good Deeds**", a societal movement to protect environment and promote good living, in its official agenda.
 - India is being appreciated for the **Indian Presidency of the fourteenth session of the** Conference of Parties of the United Nations Convention to Combat Desertification. Playing a crucial role to mitigate climate change.
 - India recently, announced its support with a 25 per cent increase over its contribution to the \$15 million **Global Environment Facility's new investment cycle**.
 - On the **political front**, the Indian Prime Minister Narendra Modi was selected for this year's Champions of the Earth award – the UN's highest environmental honour.
- **Policy support and Schemes:** Key initiatives as Swachh Bharat Mission, Waste Management Rules, **Nationally Determined Contributions**, National Clean Air Programme, electric mobility, marine litter, urban forestry scheme, development of resource efficiency policy among others for improving urban environmental quality are well acknowledged by the various platforms including BRICS countries.
 - Recently the government has gradually expanded the scope of the NAPCC by adding new missions to it such as the “Mission on Human Health” and “Mission for Coastal Areas”.
- **Engaging in ‘practical’ and ‘result-oriented’ climate diplomacy initiatives with other countries:** 14th India-European Union (EU) Summit, the two parties not only adopted a Joint Statement on Clean Energy and Climate Change but also “agreed to work towards reciprocal opening of the EU Framework Programme for Research and Innovation ‘**Horizon 2020**’ and Indian programmes, and called for an intensified two-way mobility of researchers.”
 - **Building multilateral collaborative frameworks such as** with the International Solar Alliance.
- **Role at COP-24 at Katowice:** India this year succeeded in its multilateral diplomacy to evolve a **roadmap for the international community** to decisively address climate change. Also, India's success in renewable energy auctions, in reducing emissions besides its largest commitment to eliminate all single-use plastic in the country by 2022, has enabled it to win accolades globally.
 - Voicing its reservations at the COP24 talks, India went **vocal over the lack of equity in the rules** relating to the global stocktaking in the rulebook that implements the 2015 Paris Climate Change Agreement.
- **Leveraging private sector:** Even the Indian private sector is not lagging behind in joining the ranks of leading global companies that have committed to set a scientific target to be carbon negative. Taking the lead, Mahindra & Mahindra, announced its commitment to become a carbon neutral company by 2040.

About Green Good Deeds

In 2018, Union Environment Minister had launched the **nationwide social movement** to protect the environment and promote healthy living. The environment minister had drawn up a list of over 500 'green good deeds' and asked people to alter their behaviour to green good behaviour to fulfil their green social responsibility.

Way Ahead

- **Filling the Leadership Vacuum:** US' scepticism on climate change provides an opportunity for countries like India and China to act on their common interests such as transformation of the coal sector, rapid deployment of renewable and electric vehicles, building sustainable urban infrastructure and, collaboration on R&D and cross-border transfer of climate-friendly technologies.
- The **future of climate diplomacy** depends on the creation of extensive knowledge-action networks that promote collaborative, transdisciplinary, innovation and solutions-oriented research and help implement long-term strategies geared towards sustainability.
- **Climate diplomacy needs to be tied to other agendas** such as that of the Sustainable Development Goals (SDGs), biological diversity, food security, water security, land development and so on. India needs to accelerate the pace of important reforms and mainstream climate change in public policy and investment decisions.

History of Indian climate policy

- **India occupies a unique role in global climate politics:** India is the world's third largest emitter with rising emissions and therefore matters significantly to climate action. This duality in India's position – being simultaneously a large

emitter currently but not bearing great historical responsibility for climate change, a problem to which it is highly vulnerable, puts India in a unique position. The **historical responsibility of the North and per capita rights to the global carbon budget were quickly adopted by India's climate negotiators** as the bedrock of India's position in the first climate change negotiations

- Following on from Rio, India continued to play an active role in global climate negotiations and its efforts were seen as crucial to securing the negotiations eventually resulted in the **Kyoto Protocol in 1997**. India was able to successfully protect its space for socio-economic development while simultaneously pushing for developed countries to take on more responsibilities
- **In the lead-up to the COP 15 summit at Copenhagen in 2009**, there were notable shifts in India's climate policy along with other emerging powers. At COP 13 in Bali in 2007, India accepted that developing countries should participate in the global mitigation effort, at least on a voluntary basis in line with their capabilities.
 - On a **domestic level, India also released its National Action Plan on Climate Change (NAPCC) in 2008**. Moreover, ahead of the Copenhagen summit in late 2009, India along with other **BASIC countries announced voluntary targets** to reduce the emissions intensity of its GDP by 20-25 percent against 2005 levels by 2020 and never exceed the per capita emissions of Annex I countries.
- **At COP-17, Durban**, countries agreed to terminate the **Bali Action Plan** and replace it with a new process called the Durban Platform for Enhanced Action, which further unravelled the rapidly disintegrating firewall between North and South for climate action. Unlike the **Copenhagen Accord and the Cancún Agreements** which reemphasised the importance of equity and CBDR, the Durban Platform made no such reference to these founding principles, and instead called for **negotiations towards a new global agreement** applicable to all to be agreed upon by 2015, signalling a **significant shift** in global climate politics.
- **COP 21 and the Paris Agreement:** At COP 19 in Warsaw in 2013, the idea of Nationally Determined Commitments was first mooted and eventually led to the final version of Intended Nationally Determined Contributions (INDCs) which was adopted by countries including India in 2014 at COP 20 in Lima. At the Paris negotiations itself, **India accepted the 1.5 degrees goal for climate policy** given that it could potentially be used to close the gates on carbon emissions from late industrialising nations such as itself, in the absence of more stringent emission reductions from developed countries.
 - India also launched the **global solar Alliance** on the side lines of COP 21 and is aggressively pushing for expansion of its renewable energy program.
 - As a result of these actions, **India's 'leadership' in global climate policy was praised by several commentators** during the COP 21 negotiations (PTI 2016) and after its early ratification.

2.9. INTERNATIONAL LABOUR ORGANIZATION

Why in news?

2019 marks the ILO's 100th anniversary.

About ILO

- It is the **only tripartite United Nations agency** - bringing together governments, employers and workers representatives from its 187 member states to set **international labour standards**, develop policies and devise programmes promoting **decent work for all women and men**.
- It was established in **1919** as part of the **Treaty of Versailles** that ended World War 1.
- It became the **first specialized agency of UN** in 1946 and won **Nobel Peace prize** in 1969.
- It is headquartered at **Geneva, Switzerland**.
- The **three organs of the ILO** are:
 - **International Labour Conferences:** General Assembly of the ILO which meets every year in the month of June.
 - **Governing Body:** Executive Council of the ILO which meets three times in a year in the months of March, June and November.
 - **International Labour Office:** A permanent secretariat.

International Labour Standards

- The ILO **sets international labour standards with Conventions**, which are ratified by member states, or Recommendations, which are non-binding.
- Conventions are drawn up with **input from governments, workers' and employers' groups** at the ILO.
- In ratifying an ILO Convention, a **member state accepts it as a legally binding instrument**.
- Many countries use the **Conventions as a tool to bring national laws** in line with international standards.

Function of ILO

- As part of its mission, the ILO aims to **achieve decent work for all by promoting social dialogue, social protection and employment creation**, as well as respect for **international labour standards**.

- The **main functions of the ILO** are the following:
 - Creation of **coordinated policies and programs** directed at solving social and labour issues.
 - Adoption of **international labour standards** in the form of conventions and recommendations and control over their implementation.
 - It aims to **achieve decent work for all by promoting social dialogue, social protection and employment creation**, as well as respect for **international labour standards**.
 - **Assistance to member-states** in solving social and labour problems.
 - **Human rights protection** (the right to work, freedom of association, collective negotiations, protection against forced labour, protection against discrimination, etc.).
 - **Research and publication** of works on social and labour issues.

Contribution of ILO

- **Workers right:** The ILO Declaration on Fundamental Principles and Rights at Work, adopted in 1998, makes it clear that these rights are universal, and that they apply to all people in all States - regardless of the level of economic development.
- **Reducing forced labour and providing minimum wage scale:** The ILO also works towards eliminating forced labour and minimum wage employment. The organisation has set uniform, universal standards for corporations to follow. The 1998 International Labour Conference adopted a Declaration on Fundamental Principles and Rights at Work in this view.
- **Employment:** The ILO has acted on different aspects of employment generation, from advice to government policies to direct training to poor communities.
- **Migrant workers:** ILO standards on migration provide tools for both countries of origin and of destination to manage migration flows and ensure adequate protection for this vulnerable category of workers.
- **Reducing Child Labour:** Child labour is one of the primary concerns of the ILO. The organisation has been working towards the eradication of child labour from all work fields.
 - To eradicate child labour, the ILO had launched **International Programme on the Elimination of Child Labour (IPEC)** in 1992.
 - The organisation has also constituted many conventions where **children from tribal and indigenous families are educated** in a way that they can learn all the intrinsic parts of their family chores.
- **HIV/AIDS:** The International Labour Organization (ILO) is the lead UN-agency on HIV workplace policies and programmes and private sector mobilization. ILOAIDS is the branch of the ILO dedicated to this issue.

Failure of ILO

- ILO has adopted a good number of conventions with a view to protect Labor rights. Unfortunately, still these **conventions are controversial as many of the countries did not ratify or accepted**.
 - Countries especially in **middle East Asia and Arabs like: Libya, Saudi Arabia, Iraq do not follow ILO conventions**.
- There is controversy on **definition of child Labor, domestic worker, and sex workers**. ILO has **failed to stop child Labor in Bangladesh, Pakistan, India and Sri Lanka**
- For the **domestic Labor ILO could not establish their stand**. In some countries e.g. Quait, Bahrain, Dubai, Saudi Arabia, Bangladesh, India domestic Labor issue has been focused badly.
- ILO has **no clear-cut statement for the migrant labor**. In the developed countries like: Australia, America, Singapore, Dubai, Kuwait, Brunei and Malaysia migrant Labor is a critical issue.

Some Major Conventions ratified by India

- Child Labour Convention
- Minimum Age Convention
- Forced Labour Convention
- Abolition of Forced Labour Convention,
- Equal Remuneration Convention
- Discrimination (Employment and Occupation) Convention

ILO and India

- **Relationship between India and ILO:** India is a **founding Member of the ILO** and has been a **permanent member of the ILO Governing Body** since 1922.
 - Many principles of ILO are also reflected in the Constitution of India in the form of 'Directive Principles' of State Policy.
- **Ratification of I.L.O standards by India:** India has ratified 39 out of 185 Conventions adopted by the International Labour Organisation.

- **Labour Laws in India:** Many of the labour laws passed in India since 1920 have derived their motive force from discussions at Geneva Conferences of the ILO. These labor legislations include: The Factories Act 1881, Trade Unions Act-1926, Trade Disputes Act -1929, Payment of Wages Act -1936, Maternity Benefit Act etc.

Conclusion

- To coincide with its 100th year, the ILO has announced a Global Campaign, “Taking the ILO to the people”, that demonstrates the relevance of the Organization’s founding mandate to contemporary challenges and its central role in helping build a fairer future for all.
- As part of the preparations, seven centenary initiatives have been launched to give strategic direction, purpose and content to the ILO, its work and its mandate:
 - The **future of work initiative** to establish an advisory panel on the future of work.
 - The **women at work initiative** to survey the place and conditions of women in the world of work and engage tripartite constituents in concrete action to realize equality of opportunity and treatment.
 - The **standards initiative** to consolidate tripartite consensus on an authoritative supervisory system and to enhance the relevance of international labour standards through a standard review mechanism.
 - The **end to poverty initiative** to meet the urgent requirement for an adequate living wage for all workers, including through the employment and social protection components of the post-2015 development agenda.
 - The **governance initiative** to complete reform of the ILO’s governance structures, to undertake an evaluation of the impact of the 2008 Declaration as set out in its final provisions, and to act on its findings.
 - The **green initiative** to give practical application to the decent work dimension of the transition to a low-carbon, sustainable development path and to facilitate the tripartite contribution to it.
 - The **enterprises initiative** to establish a platform for ILO engagement with enterprises which would contribute to their sustainability and to ILO goals.

फाउंडेशन कोर्स सामान्य अध्ययन प्रारंभिक एवं मुख्य परीक्षा 2020

इनोवेटिव क्लासरूम प्रोग्राम के घटक

- प्रारंभिक परीक्षा, मुख्य परीक्षा और निबंध के लिए महत्वपूर्ण सभी टॉपिक का विस्तृत कवरेज
- मौलिक अवधारणाओं की समझ के विकास एवं विश्लेषणात्मक क्षमता निर्माण पर विशेष ध्यान
- एनीमेशन, पॉवर प्वाइंट, वीडियो जैसी तकनीकी सुविधाओं का प्रयोग
- अंतर - विषयक समझ विकसित करने का प्रयास
- योजनाबद्ध तैयारी हेतु करेंट ओरिएंटेड अप्रोच
- नियमित क्लास टेस्ट एवं व्यक्तिगत मूल्यांकन
- सीसैट कक्षाएं
- PT 365 कक्षाएं
- MAINS 365 कक्षाएं
- PT टेस्ट सीरीज
- मुख्य परीक्षा टेस्ट सीरीज
- निबंध टेस्ट सीरीज
- सीसैट टेस्ट सीरीज
- निबंध लेखन - शैली की कक्षाएं
- करेंट अफेयर्स मैगजीन

Scan the QR CODE to download VISION IAS app

DELHI: 6 Aug | 12 Sept **LUCKNOW: 25 July** Batches also @ **JAIPUR | AHMEDABAD**

3. ECONOMY

3.1. DIRECT TAX CODE

Why in news?

Recently, the draft legislation of the **new Direct Tax Code (DTC)** was submitted by the task force, headed by **Akhilesh Ranjan**, to the Government of India.

More on the news

- **The Direct Tax Code (DTC)** is an attempt by the Government of India to simplify the direct tax laws in India.
 - It will **revise, consolidate and simplify** the structure of direct tax laws in India into a single legislation.
 - When implemented, it will replace the **Income-tax Act, 1961 (ITA)**, and other direct tax legislations like the Wealth Tax Act, 1957.
- The task force was constituted by the government to frame draft legislation for this proposed DTC in November 2017 and review the existing Income Tax Act.

Related Information

- **What is a Direct Tax?**
 - These are the taxes, paid **directly to the government by the taxpayer**. Under the direct tax system, the incidence and impact of taxation fall on the same entity, which cannot be transferred to another person.
 - It is termed as a **progressive tax** because the proportion of tax liability rises as an individual or entity's income increases.
 - **Examples-** Income tax, corporate Tax, Dividend Distribution Tax, Capital Gain Tax, Security Transaction Tax.
- The system of Direct taxation is governed by the **Central Board of Direct Taxes (CBDT)**. It is a part of the Department of Revenue in the Ministry of Finance.

Need

- The Income Tax Act, 1961 with over 700 sections was drafted as per the nature of Indian economy in 1960s and the capacity to mobilize resources from taxpayers directly.
- However, in these 58 years, there have been following developments-
 - Changes in the **Indian economy** towards liberalisation and privatisation.
 - Changes in the **Global economy** towards more integration and globalisation.
 - Changes in the **models of doing business** such as e-commerce.
 - Changes in the **technology** which can be leveraged towards better tax administration
- Also, the IT Act has been amended various times which has made it **complex** and **increased tax litigations**.

Trends of Direct Tax collection

- There has been a growth of more than 80% in the number of returns filed in the last four financial years and direct tax-GDP ratio rose to 5.98% in FY 2017-18, the highest it has been in the last 10 years.
- Further, the number of persons filing income tax returns also increased by about 65% during period from 2014-2018.
- Moreover, **Direct Tax-GDP ratio rose** to 5.98% in FY 2017-18, which is highest in the last 10 years. This shows a sign of improvement of **Tax-Buoyancy** in the economy.

Key Provisions of the draft DTC

- **Rejig of tax brackets-** to widen them and which can bring a significant relief for the middle and upper middle class
 - A common corporate rate of 25% will apply to both large local as well as foreign companies that are present in India without a subsidiary.
- **Removal of Surcharges and Cesses-** which are currently imposed above a certain income slab and for specific purposes.
- **Negotiated Settlements-** a new concept of settling disputes through **mediation** between the taxpayer and a **collegium of officers**. Here, the assessee will only have to pay the tax and interest and no penalty in case of a negotiated settlement.
- **Assessment System-** creation of an **assessment unit** to replace an assessing officer and a separate **litigation unit**. It has favoured jurisdiction-free, anonymous assessment by domain experts with the involvement of senior officials.
- **Incentives for Start-Ups-** by treating them differently from that of a normal company. It is proposed that the funds raised by the start-ups will not require any kind of scrutiny.

Benefits

- **Simplification of processes for taxpayers-** due to features such as basic tax slabs and limited number of efforts needed to file taxes.
 - E.g. Surcharge and cess complicate the tax calculations especially for tax-deduction purposes and also add to unnecessary disputes.
- **Expansion of tax base-** as large number of people will be covered in the lowest tax slab, which will promote voluntary tax compliance.
 - Despite being a country of over 1.3 billion people, there are only 74 million effective taxpayers in India as per the last count.
- **Address contemporary needs-** such as greater mobility of capital, capital account convertibility, tax competition among countries.
 - Further, it will be capable of dealing with new business models in a digital economy. Evolution of the digital economy has allowed companies to offer their services despite not having physical presence in a country.
- **Bring objectivity in tax architecture-** as the draft has also proposed concrete principles of taxation, which would guide the future tax proposals by all governments.
- **Reduction in malpractices-** through faceless assessment, whereby there will be no requirement of physical presence of the assessee (tax payer) or the identity of the assessor (tax official).
 - There is an emphasis on reducing litigation and making the interface of the department with taxpayers anonymous to eliminate harassment and corruption.
- **Boost to savings and investment-** as the corporate tax regime will be rationalised which will create predictability in the minds of individual and corporate players.
 - The DTC also pays specific attention to startups under stressed positions due to taxation.
 - The capital gains tax regime, minimum alternate tax and dividend distribution tax have also been reviewed by the task force.

Significance of Direct tax collection

- **High Tax buoyancy:** It is an important metric to know the expected level of government borrowings from the debt market. Higher tax buoyancy would mean the **government would borrow less**, keeping interest rates lower, **while giving room for corporates also to borrow at lower rates** thus reducing **crowding out effect** in the economy.
- **Fiscal Health:** High rate of direct tax collection increases spending capacity of government on social sectors such as education and health, without compromising the **fiscal prudence** in the economy.
- **Maintaining Inflationary Trends:** High rate of direct tax collection helps in maintaining the optimum interest rate in the economy, which in turn assists in maintaining the inflationary pressure.
- **Lower Indirect tax:** Higher direct tax collections could lower the tax burden on the poor by creating fiscal space for a reduction in GST rates.

Way Forward

- Although previous efforts to develop an alternative mechanism for settlement of tax disputes, including mediation, have not had too much success, but it can be ensured through the DTC in the following way-
 - There is a need for a **robust database of jurisprudence**, and **proper training** to tax officers, chartered accountants and other professionals empanelled to ensure a proper, effective and impartial approach to settling litigation.
 - Periodically release internal manuals, which contain the revenue department's interpretation of the provisions keeping in mind court rulings.
- Further, there should be an **institutional mechanism**, with participation of all the stakeholders, to periodically oversee the changing requirement and amend the DTC as required.

3.2. FOREIGN CURRENCY BORROWINGS

Why in news?

In the Budget 2019-20, the Finance Minister announced that the government would start raising a part of its gross borrowing programme in external markets in external currencies.

Background

- **A government bond or sovereign bond** is a form of debt that the government undertakes wherein it issues bonds with the promise to pay periodic interest payments and also repay the entire face value of the bond on the maturity date. So far, the **government has only issued bonds in the domestic market**.

- Sovereign bonds can be denominated in both foreign and domestic currency.
- The idea of the Indian government borrowing in foreign currency has been discussed multiple times earlier in the 1990s, in the early 2000s etc.
 - Each time the possibility of a sovereign foreign currency bond was put on the table, it came from a place of vulnerability.
 - That vulnerability, until now, was the need to shore up foreign currency reserves or support the rupee.
- This time, though, it is a different vulnerability that has prompted the government to announce that it will consider borrowing overseas.
 - Fiscal pressures and high public sector borrowing requirements are crowding out private borrowers and keeping interest rates high.
 - The government is hoping that by diverting a part of its borrowings overseas, it will free up the domestic financial savings pool for private use and bring down interest rates.
- The government plans to borrow 10-15 per cent of the total borrowing offshore, which can be used to mop up at least Rs 70,000 crore, according to tentative plans.
- The government and the Reserve Bank of India (RBI) will reportedly finalise the plans for the overseas issue of sovereign bonds by September.

Other factors for going towards Foreign Currency Borrowings

- **India's foreign borrowings are among the lowest globally-** At the end of March 2019, the total sovereign debt stood at \$103.8 billion, which was **3.8 per cent** of the GDP.
- **Low Current Account Deficit-** which as a percentage to GDP was **2.1 per cent** in 2018-19, which was financed comfortably by capital flows (both debt and equity).
- **Most of the external sector vulnerability indicators are stable-** such as debt to GDP (19.7 per cent), debt to forex reserve (76 per cent), debt service ratio (6.4 per cent) and forex reserve to import cover (eight months). Also, the volatility of the rupee is least among the emerging market economies. It shows the amount of resilience in the external sector.
- **Strong Macro-economic indicators-** though **economic growth** has slowed down, it is highest in the global context and is accompanied by a benign **inflation** outlook.
- **Strong commitment voiced by the government for fiscal consolidation-** will be well received by the global market, even though the debt (68 per cent of GDP) is at a higher level for the general government (both Centre and the States).

Pros

- **Address the shallowness of bond market which exists in India-** especially at a time when the government needs the bond market to finance several of its commitments such as the Ujwal Discom Assurance Yojana (UDAY) scheme. As an issuer, the government will get the benefit of diversification of investor bases with global presence, and there could be some easing of pressure on the domestic bond rates.
- **Frees up resources for domestic savings and production-** which can boost private investment in the country, as they will have funds to adequately meet its credit and investment needs. As less domestic funds would be sought by the government, it would reduce yields in the Indian bond market, help banks pass on policy rate cuts to their loan customers.
- **Less expensive sourcing of resources-** It is the perfect time to raise the money, considering that overseas yields are low, and some European bonds have even dipped in negative territory. So foreign money can be raised quite cheaply, at less than half the domestic rate, by one estimate.
- It creates a **benchmark for Indian companies** to raise money abroad. Also, if Indian sovereign bonds become part of international market indices, their prices would set a reliable interest rate benchmark for overseas credit sought by Indian firms, which should ease their access to foreign loans.
- **Force Financial Discipline on Governments-** by not allowing fiscal slippage. Also, the overseas borrowing programme allows the government to maintain its gradual reduction of the fiscal deficit.

Cons

- **Exposed to the global vulnerabilities-** In the past, India has managed to survive at 6.5 per cent of fiscal deficit. It didn't suffer from the credit crisis because the sovereign bond was not held by foreign investors, who could short sell the bonds and create panic in the domestic market. With an overseas bond issue, the government would not be able to inflate itself out of trouble.
 - If the rupee weakens over the tenure of the paper, the government's payback burden would increase, since it would take more rupees to buy each dollar, euro, yen, etc.
- **Could turn out to be costlier:** The volatility in India's exchange rate is much greater than the volatility in the interest rates of India's G-Secs. It means that although the government would be borrowing at

cheaper rates than those domestically, the eventual rates after incorporating the weakening of rupee against the dollar might make the deal costlier.

- **Might make the exports less competitive-** overseas borrowings would lead to a quicker increase to its foreign exchange reserves, which would lead to a stronger rupee. A stronger rupee would encourage imports at a time when the government is trying to curb them. It would make it harder to pursue export-driven economic expansion.
- **May not lessen the pressure on domestic market:** it has been argued that borrowing outside would not necessarily reduce the number of government bonds the domestic markets have to absorb.
 - If fresh foreign currency comes into the economy RBI has to neutralise it by sucking the amount from the money supply, this would require selling of more bonds.
 - If RBI does not take this step then the excess money supply can cause inflation pushing up the interest rates and thus disincentivising the private instruments.
- **International examples-** Several economists have expressed their concerns over the fact that India might follow the path of some Central and South American countries such as Mexico and Brazil. In the 1970s, several of these countries borrowed heavily overseas when the global market was flush with liquidity. But then, when their currencies depreciated sharply a decade later, these countries were in big trouble, as they could not repay their debt.

Way Forward

- India needs to take a measured approach in dealing with foreign borrowings, by not allowing its percentage to total borrowings slip out of hand.
- By issuing the bonds, the government will have to manage its policies extremely well. And this would require fiscal discipline, since all sorts of investors would be looking at India's numbers closely.
- It is appropriate to float the issuance in countries where there is a large presence of NRIs like North America, and the Middle East. In addition, Japan is a good place to float this because of the strong political association and past bilateral swap arrangements between Japan and India.

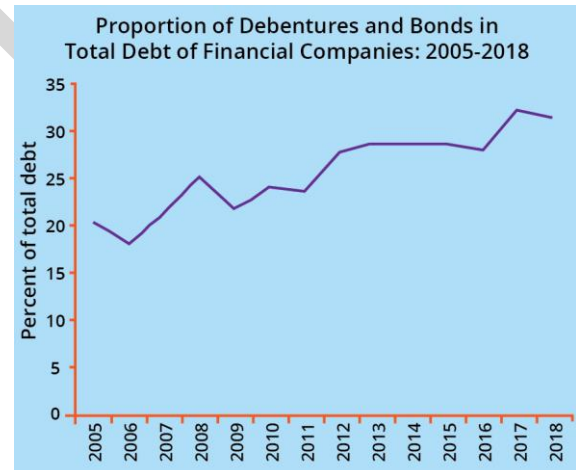
3.3. CORPORATE BOND MARKET

Why in news?

Recently, the government announced some measures in the Budget 2019-2020 for developing the corporate bond market in India.

Background

- Corporate bonds are debt securities issued by private and public corporations. Companies issue corporate bonds to raise money for a variety of purposes, such as building a new plant, purchasing equipment, or growing the business.
- Successive budgets and various committees mandated by the government, the RBI and the Securities and Exchange Board of India (SEBI) to work out measures to develop this market have largely failed.
 - The growth rate of corporate bonds has generally been slowing since 2017 and marked its lowest rate in over a decade in May 2019 at 9.7%. On the other hand, bank lending grew 12.7% in the last year.
- Some of the measures announced in the Budget to deepen the market for long term bonds are-
 - Deepening markets for corporate bond repos, credit default swaps etc, with a specific focus on the infrastructure sector
 - Foreign Portfolio Investors (or FPIs) will also be allowed to invest in debt securities issued by Infrastructure Debt Funds.
 - Credit Guarantee Enhancement Corporation, for which regulations have been notified by the RBI, will be set up in 2019- 20.
 - Establishment of a platform for listing social enterprises and voluntary organisations to raise capital as equity, debt or units like mutual funds.



- There is also a proposal to increase minimum public shareholding in companies to 35 per cent from 25 per cent.

Issues with Corporate Bond Market in India

- **Underdeveloped:** While the domestic debt market in India amounts to about 67 per cent of GDP, the size of India's corporate bond market is just 16 per cent of GDP, compared with 46 per cent in Malaysia, and 73 per cent in South Korea.
- **Limited Investor Base:** marked by banks, insurance companies, pension retirement funds and now mutual funds.
 - A majority of the bonds issued by companies are privately placed with a select set of investors in India rather than through a public issue; this is done to both save time as well as avoid greater disclosures.
 - The Foreign Portfolio Investors (FPIs) are now prominent buyers of top-rated bonds given the attractive returns especially in the backdrop of a strong rupee. Most of these investors do not trade but hold these investments until maturity.
- **Low Liquidity:** due to few buyers in the market or market makers who offer buy or sell quotes constantly. There is little or no incentive for market making.
- **Lack of trading platforms:** such as available for government securities, which restrict the availability of corporate bonds and their trading.
- **Lack of confidence in corporate bonds:** due to
 - Weakening balance sheets of the companies in India creating suspicion on their growth potential.
 - Insufficient credit risk protection instruments like Credit Default Swaps (CDS).
- **Lack of standardization across states:** for providing a uniform architecture to them, like stamp duties on corporate bonds.

Need of a Corporate Bond Market in India

- **Pressure on banking sector:** In the absence of a well-functioning corporate bond market, the burden of financing infrastructure projects is **more on banks and the general government**. This, in turn, puts lenders like the banks under pressure as reflected in the rising non-performing assets (NPAs).
 - Eventually, this not only results in inefficient resource allocation but also weakens the bank balance sheets.
- **More options:** A mature corporate bond market enables companies to raise funds across different maturities including for infrastructure projects with long gestation periods. Retail investors will also get a chance to invest in such projects via debt funds.
- A well-developed corporate bond market is essential for the efficiency and stability of a country's financial system and the overall growth of its economy.

Major Recommendations of H.R. Khan Committee on Development of Corporate Bond Market in India

- **Standardization of corporate bond issuance-** in terms of parameters like basis for yield calculation, by regulators like SEBI.
- **Broaden the scope of investors-** such as by amending the FEMA regulations to allow investment by FPIs in unlisted debt securities.
- **Protection of the investors-** The RBI and other regulators must give timely clarification on credit default swap and other security instruments. The Credit Rating Agencies may be mandated to strictly adhere to the regulatory norms with regard to timely disclosure of defaults on the stock exchanges and their own website.
- **Enabling trading of bonds-** Stock exchanges may operationalize market-making scheme in corporate bonds. Also a **Corporate bond index** may be introduced by the Stock Exchanges/other entities.
- **Infrastructure-** by expanding the scope of the Electronic Book Mechanism for private placement of debt securities.
- **Encouraging corporates to tap capital market-** Large corporates with borrowings from the banking system above a cut-off level may be required to tap the market for a portion of their working capital and term loan needs.

Way Forward

- A robust corporate conflict resolution mechanism will go a long way in building investor confidence in the product. Investors will look at corporate bonds as an attractive asset class if they are confident that conflicts can be resolved quickly and fairly.
- The corporates need to innovate their debt instruments using different mechanisms like greater securitization, credit enhancement and derivatives.

- There needs to be greater investor awareness on the availability of corporate bonds, the risks associated and the security measures present to secure the investments.
- The electronic bidding platform should be made more flexible to accommodate simultaneous issuances from one issuer, and the issuance time of about four days must be shortened.

3.4. 50 YEARS OF BANK NATIONALISATION

Why in news?

19th July, 2019 marked the 50th anniversary of Bank nationalization.

Background

- On July 19, 1969, the Government of India had issued an ordinance '**Banking Companies (Acquisition and Transfer of Undertakings) Ordinance, 1969**' and nationalized 14 banks with deposits of over Rs 50 crores.
- **Ordinance was initiated by Indira Gandhi government** which brought more than 75% **banking sector under state control along with its assets, liabilities, entire paid-up-capital.**
- For this purpose, the **Central Government was supposed to pay compensation to the banks.**
- The total amount of compensation could be **determined by consensus between the bank and the government.**

Reasons for Bank Nationalisation

- **Private Banks were unreliable:** There were 361 private banks which "failed" across the country in the period from 1947 to 1955, translating to an average of over 40 banks per year. This resulted in depositors losing all their money as they were not offered any guarantee by their respective banks.
- **Conformity with national policy and objectives:** Nationalisation of banks was to sync the banking sector with the goals of socialism adopted by the Indian government after independence.
- **To break the nexus between banks and big business:** These commercial banks were seen as catering to the large industries and businesses who were disproportionately cornering bank finance.
- **Balanced flow of credit:** it was aimed at ensuring the balanced flow of credit to all the productive sectors, across various regions and social groups of the country. Agriculture and other priority sector were largely ignored by these banks.
- **Planned development of the economy:** It was envisaged that with nationalisation the proportion of bank investments in Government securities would go up. This would ensure enough development funds for the planned growth of the country

Bank Nationalisation Case

- The main challenge was the **lack of any clear legal principles in determining compensation.**
- By a majority of 10:1, the **Supreme Court of India struck down the Banking Companies (Acquisition and Transfer of Undertaking) Act, 1969 mainly on the ground that the proposed compensation to be provided to the 14 banks failed the test of Article 31(2).**
 - The said provision provided that in case any property is acquired by the government then they have to provide compensation to the property owner. Since there was clear violation of the said provision therefore, the court struck down the said act.
- Thereafter, the Banking Companies (Acquisition and Transfer of Undertaking) Act, 1970 was enacted by the Parliament but with inclusion of a specific amount of compensation to be paid to each of the 14 banks.
- Later, **Twenty-fifth Amendment of the Constitution of India curtailed the right to property, and permitted the acquisition of private property by the government for public use,** on the payment of compensation which would be determined by the Parliament and not the courts.

The idea to nationalise banks and insurance companies germinated as early as 1948, in an All India Congress Committee report.

- The Reserve Bank of India was nationalised with effect from 1st January, 1949 on the basis of the Reserve Bank of India (Transfer to Public Ownership) Act, 1948. All shares in the capital of the Bank were deemed transferred to the Central Government on payment of a suitable compensation.
- In 1955, India nationalized Imperial Bank of India and its undertaking was taken over by State Bank of India.
- The insurance sector was nationalised in 1956 with the formation of Life Insurance Corporation of India.
- In 1969 the Indian government nationalised 14 major private banks. In 1980, six more private banks were nationalised.

Benefits of Nationalisation of banks

- **Increase in Rural branch:** In July 1969, there were just 8,262 bank branches in the country which raised to 30,303 in June 1979.
- **Priority-sector lending:** All banks had to compulsorily set aside 40% of their net bank credit for agriculture, micro and small enterprises, housing, education and “weaker” sections.
- **Demonstrated the utility of monetary policy:** India’s nationalisation shows that monetary policy, banks and interest rates can be effectively used to take banks to rural areas, backward regions and under-served sectors, furthering redistributionist goals in an economy.
- **Investment in Government Securities:** There has been a significant increase in the investment of the banks in government and other approved securities in recent years.
- **Job opportunities:** The huge expansion of the branch network created job opportunities, giving employment to a vast number of educated youths in the country.

Issues with bank Nationalisation

- **Complex interest rate structure:** There were different rates of interest for different types of loans. This defeated the purpose of nationalization, as due to complex structure loans never reach the needy ones.
- **Under-lending:** Banks became risk-averse and rarely lending to new firms.
- **Low Profitability:** A major defect of banking after nationalisation is that the nationalised banks are either operating under losses or experiencing falling dividends.
- **Low Efficiency:** Nationalisation has created bureaucratic attitude in the functioning of banking system. Political interference also disturbs the smooth working of the nationalised banks.

Conclusion

The 50th anniversary of bank nationalization is an appropriate occasion to take a call on their future. Conceptually bank nationalization is a good idea if it pushes for financial inclusion. But at the same time efforts should be taken to improve its efficiency and reduce the growing bad assets.

3.5. CORPORATE SOCIAL RESPONSIBILITY (CSR)

Why in news?

Recently, President’s assent was given to the **Companies Amendment Act, 2019** to **provide specific penal provision** in case of **non-compliance of Corporate Social Responsibilities Rules**.

About Corporate Social Responsibility

- The Companies Act, 2013 is a landmark legislation that **made India the first country to mandate and quantify CSR expenditure**. The inclusion of CSR is an attempt by the government to engage the businesses with the **national development agenda**.
- **Section 135 of the Act** lays down **rules for CSR activity** in India.
 - It mandates that every company, private limited or public limited, which either has **a net worth of Rs 500 crore or a turnover of Rs 1,000 crore or net profit of Rs 5 crore, needs to spend at least 2%** of its average net profit for the immediately preceding **three financial years** on CSR activities.

CSR is a concept that suggests that it is the **responsibility of the corporations** operating within society to contribute towards economic, social and environmental development that creates positive impact on society at large.

Primary objective of CSR: To promote responsible and sustainable business philosophy at a broad level and encourage companies to come up with **innovative** ideas and robust management systems.

Major Highlights of the Amendment Act 2019

- The Act mandates that companies transfer unspent CSR money in a financial year to an **escrow account** meant for CSR for three years, after which any unspent amount must be transferred to a fund specified by the government.
- Strengthening enforcement provisions that enable the SFIO (serious Fraud Investigation Office) to ensure speedy and more effective enforcement, including actions of disgorgement.
- Act also highlights the importance of **companies having verifiable registered physical addresses** and makes it mandatory that companies have a physical address.
- The Act aims for declogging the National Company Law Tribunals (NCLTs) through the shifting of routine matters, from the NCLT to the central government.
- The Act also recategorizes **16 compoundable offences**, such as failure to file returns and issuance of shares at a discount, as civil defaults where adjudicating officers of the central government may levy penalties.

- The CSR activities in India should not be undertaken in the normal course of business and must be with respect to any of the 17 activities of CSR mentioned in **Schedule VII of the act.**
- Recently, the report of a **High-Level Committee (HLC) on Corporate Social Responsibility**, set up under **Injeti Srinivas** in 2018 to review the existing framework submitted its report.

Findings of the HLC

- **CSR expenditure by companies:** The total CSR expenditure by companies has **increased substantially by 44%** from the year 2014-15 to 2015-16 and thereafter **marginally declined** in the year 2016-17. It has further **dipped** by 6.9% in the year 2017-18.
- **CSR compliance:** The **compliance percent has decreased** from 72% in 2016-17 to 57% in 2017-18. Some of the **major reasons** reported for underspending the prescribed amount on CSR are:
 - Problems in identifying a suitable project,
 - Selection of suitable implementing agency
 - Multi-year projects, etc.
- **CSR expenditure across areas or subjects:** Out of the total expenditure on CSR activities, the projects related to **education and health** have received maximum CSR funds almost every year post 2014-15 followed by projects related to **rural development.**
- **Contribution to Central Government funds:** At present, CSR funds can be contributed to **PM National Relief Fund, Swachh Bharat Kosh, Clean Ganga Fund** and any other fund set up by Central Government. The contributions to these funds have been in small proportion (approx. 5.6%) of the total CSR expenditures for the years 2014-15 to 2017-18.
- **Local area spending & Geographical disparity in CSR:** A major share of the total CSR fund available in a particular year is getting distributed in a **few states**, mainly due to the location of the Companies.
 - A state-wise analysis of CSR expenditure reveals that the states like **Maharashtra, Karnataka, Andhra Pradesh, Gujarat, Tamil Nadu and Delhi** have received approximately 40 % of the total expenditure on CSR, whereas States like **Jharkhand, Bihar, Chhattisgarh and Uttar Pradesh** are receiving only 9% of the total expenditure towards CSR.
 - The **North East Region** and **areas affected by Left wing extremism** are receiving a miniscule proportion of the total CSR expenditure.

CSR: Examples in India

- **The Tata Group conglomerate** in India carries out various CSR projects, most of which are **community improvement and poverty alleviation programs.** Through self-help groups, it is engaged in **women empowerment activities, income generation, rural community development,** and other social welfare programs.
- **Ultratech Cement**, India's biggest cement company is involved in social work across 407 villages in the country aiming to create **sustainability and self-reliance.**
- **The ITC's e-Choupal program**, aims to connect rural farmers through the internet for procuring agriculture products, covers 40,000 villages and over four million farmers. Its social and farm forestry program assists farmers in **converting wasteland to pulpwood plantations.**

Key Recommendations of the HLC-2018

Applicability of the CSR Provisions:	Provisions of CSR need to be applicable across all business entities and there should be a level playing field.
CSR Activities in Local Areas:	The emphasis on local area in the Act should not be treated mandatory in nature. Companies should engage in CSR activities by balancing local area preference with national priorities.
Schedule VII of the Act	It should be mapped and aligned largely with SDGs and some important items such as senior citizens' welfare, disaster management, and heritage be additionally included to develop an SDG+ framework.
Contribution to Central Government funds	This provision should be discontinued as CSR spend. However, a specific designated fund may be created for transfer of unspent CSR funds lying with the company beyond the proposed 3-5 year time limit.
Issues related to Reporting for CSR:	Enhanced disclosures should be made for better information dissemination with respect to selection of projects, locations and implementing agencies to facilitate better monitoring.
CSR Audit:	CSR may be brought within the purview of statutory financial audit, by making details of CSR spending as part of the financial statement of a company.
Creation of 'Social Impact Companies'	To express object of pursuing social outcomes, while being permitted to achieve conditional profit which can be distributed.

Mains 365 - Updated Study Material

Tax Benefits for CSR Activities:	All activities listed under Schedule VII to enjoy uniform tax benefit.
Third party assessment of CSR Projects:	5% of CSR mandated companies be identified on a random basis for third-party assessments on a pilot basis.

3.6. CONSUMER PROTECTION ACT 2019

Why in News?

President gave assent to the Consumer Protection Act, 2019.

More in News

- The new Act, which would replace the Consumer Protection Act, 1986, **is not an amendment to the 1986 law, but a new consumer protection law.**
- It aims **to address consumer vulnerabilities to new forms of unfair trade and unethical business practices** in the fast-changing new-age economy.

Key Feature of the Act

- **A consumer is defined** as a person who buys any good or avails a service for a consideration. It does not include a person who obtains a good for resale or a good or service for commercial purpose. It covers transactions through all modes including offline, and online through electronic means, teleshopping, multi-level marketing or direct selling.
- The Act **defines “consumer rights”** as the right
 - to be protected against the marketing of goods, products or services which are hazardous to life and property.
 - to be informed about the quality, quantity, potency, purity, standard and price of goods, products or services;
 - to be assured of access to a variety of goods, products or services at competitive prices.
 - It also includes the right to be heard and to be assured that the consumer’s interests will receive due consideration at appropriate forum; and
 - the right to consumer awareness.
- **Central Consumer Protection Authority** will be set up to promote, protect and enforce consumer rights. It can issue safety notices for goods and services, order refunds, recall goods and rule against misleading advertisements.
 - The CCPA will have an **investigation wing**, headed by a Director-General, which may conduct inquiry or investigation into such violations.
- **Consumer Disputes Redressal Commissions** will be set up at the District, State and National levels for adjudicating consumer complaints. Appeals from the District and State Commissions will be heard at the next level and from the National Commission by the Supreme Court.
- **Consumer Protection Councils** will be established at the district, state and national levels to render advise on consumer protection.
- **Product liability means** the liability of a product manufacturer, service provider or seller to compensate a consumer for any harm or injury caused by a defective good or deficient service. A claim for compensation may be made for any harm caused, including:
 - property damage
 - personal injury, illness, or death; and
 - mental agony or emotional harm accompanying these conditions.

Issues with the Act

- The Act does not specify that the Consumer Disputes Redressal Commissions will comprise a judicial member. If the Commissions were to have members only from the executive, the principal of separation of powers may be violated.
- The Bill does not specify whom the Consumer Protection Councils will advise. If the Councils advise the government, it is unclear in what capacity such advice will be given.
- The definition of ‘consumer rights’ in the Bill is not simple and straight forward, so that consumers at least know what their entitlements are.

Comparison of the 1986 Act with the 2019 Act

	1986 Act	2019 Act
Ambit of law	All goods and services for consideration, while free and personal services are excluded	All goods and services, including telecom and housing construction, and all modes of transactions (online, teleshopping, etc.) for consideration. Free and personal services are excluded.
Unfair trade	Includes six types of such	The Act adds three types of practices to the list, namely:

practices	practices, like false representation, misleading advertisements.	<ul style="list-style-type: none"> • failure to issue a bill or receipt; • refusal to accept a good returned within 30 days; and • disclosure of personal information given in confidence, unless required by law or in public interest. Contests/ lotteries may be notified as not falling under the ambit of unfair trade practices.
Product liability	No provision. Consumer could approach civil court but not consumer court	Claim for product liability can be made against manufacturer, service provider, and seller
Unfair contracts	No provision.	The Act recognizes and addresses the menace of unilateral and unfair contracts .
Regulator	No separate regulator	Establishes the Central Consumer Protection Authority
Pecuniary jurisdiction of Commissions	District: Up to Rs 20 lakh; State: Between Rs 20 lakh and up to Rs one crore; National: Above Rs one crore.	District: Up to Rs one crore; State: Between Rs one crore and up to Rs 10 crore; National: above Rs 10 crore.
Consumer court	Complaints could be filed in a consumer court where sellers (defendant) office is located	Complaints can be filed in a consumer court where consumer resides or work.
E-commerce	No provision	Defines direct selling, e-commerce and electronic service provider. The central government may prescribe rules for preventing unfair trade practices in e-commerce and direct selling.
Mediation Cells	No legal Provision	Court can refer settlement through mediation

Conclusion

The Act is a much-needed step to overhaul the archaic consumer protection law that was increasingly becoming redundant in protecting the interests of Indian consumers in this age of digitization. The Act addresses consumer concerns arising from technological advancements in the marketplace, removes logistical hurdles for the consumers while initiating action, and broadens the scope of grounds for which action can be initiated.

3.7. GIG ECONOMY

Why in News?

The concept of work is changing. Among the key reasons that are impacting the nature of work, the gig economy has emerged as one of the most important and rising trends.

What is gig economy?

- A gig economy is a free market system in which temporary positions are common and organizations contract with independent workers for short-term engagements.
- This is done to achieve advantage of cost, quality, and flexibility. Once the task is complete, the worker is free to move on.
- Examples of gig employees in the workforce could include freelancers, independent contractors, project-based workers and temporary or part-time hires.
- A McKinsey report says, 20-30 percent of the developed countries' workforce is today engaged in independent work.

Factors behind rising popularity of gig economy

- **Technology:** Technology enabling centralised communication, real-time scheduling and tracking, dashboard, video conferencing, etc. created a marketplace for gig like ecommerce did for goods.
- **The emergence of start-up culture:** To optimise resources efficiently, usually, start-ups prefer hiring freelancers based on projects and requirements they receive from their clientele.
- **Uncertain business environment:** A slowdown in both regional and global economies, organizational downsizing and cost-cutting have contributed to the rise of professionals opting for flexible arrangements.
- **The rise of freelancing platforms:** Many homegrown and international platforms are acting as a bridge between the brands and freelancers across the world thus providing a global marketplace for business to outsource work at an affordable price and freelancers to build a livelihood on their terms.

Benefits of Gig economy

The Organizational Perspective

- **Filling the skills gap:** Recent research from McKinsey reveals almost 40% of companies have trouble finding talent to fill the skills they need. Free agents offer opportunity to leverage talent in hard-to-hire areas like IT, engineering, digital marketing, and design.
- **Timing:** Talent managers find it's faster to onboard gig workers than full time employees, and it's easier to lock in outside resources.
- **Lower labor costs:** The gig system results in lower training overheads and savings in office costs. Globally, 43 percent of companies with gig workers save 20 percent in labour costs, per an industry survey.
- **Improvement of solutions offerings:** Gig workers accelerate product development and enhance customer relationships.

The Gig Worker Perspective

- **Flexibility:** It gives individual to manage their work, their personal lives, and their passions.
- **Earn income from multiple sources:** It gives freelancer opportunity to choose projects that best align with their goals and interests, and the ability to earn income from multiple sources.
- **Provide diverse knowledge and experience:** It creates a more updated workforce with diverse knowledge, through gigs in various organizations. It provides workers an opportunity to upskill themselves to work in a new domain of interest.
- **Beneficial for women:** This gives women opportunity to work on this concept when they cannot continue their work or take a break from career due to marriage or child birth.
- **Travel cost:** The travel costs and energy to travel to the workplace is reduced.

Issues with Gig economy

- **Impact companies work culture:** As companies forgo their traditional style, their strategic vision may become obscure. Companies struggle to retain their corporate culture, and staff lack in team spirit when workers are temporary.
- **Confidentiality of document:** When there is a situation where gig worker is potentially working for others as well, including competitors, the employer is wary of what he shares with the gig worker and remains perennially suspicious.
- **Workers right:** Those working in the gig economy do not enjoy the same rights and protections as employed workers, such as health benefits, overtime pay and sick leave pay. Further, workers can be terminated anytime here in a gig economy.
- **Discriminatory to rural areas:** It is not accessible for people in many rural areas where internet connectivity and electricity still is a distant dream. Hence, they are deprived of this opportunity and this stems up inequality debate again.

Way forward

- Government should extend labour laws benefits to gig workers even if not at par with the regular or contractual employees of an organisation.
- Efforts should be taken to ensure that external contractors are treated fairly and ethically by companies.
- Educators and industry groups could build widely recognized credentials and develop flexible courses and training programs to enable independent workers to advance their careers.

3.8. DISINVESTMENT

Why in news?

The finance minister in the budget 2019-2020, highlighted that the government would not only reinstate the process of strategic disinvestment of Air India, but would offer more CPSEs for strategic participation by the private sector.

More on news

- **Announcements in Budget 2019-2020-**
 - The target for disinvestment receipts has increased to **Rs 1.05 trillion for FY20**, from Rs 90,000 crore in the interim Budget earlier this year.

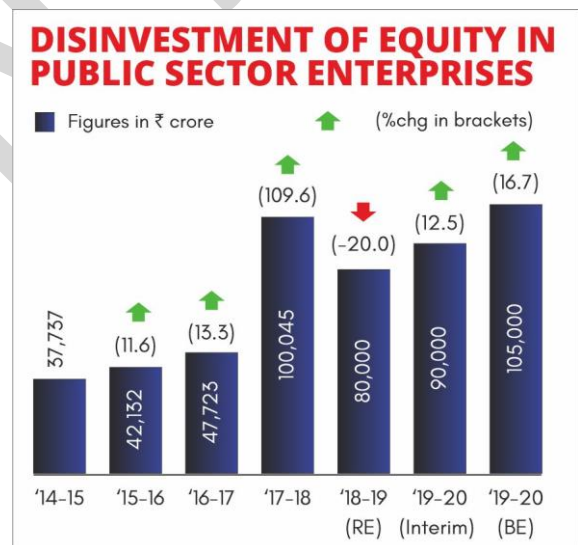
- The government’s stake in non-financial public sector units (PSUs) can go below the majority stake of 51 per cent. Instead of holding a direct stake of 51 per cent in PSUs, “government-controlled institutions” can chip in the remaining sum, which the government will look to divest.
- The Government is looking for **asset monetisation** from land and property of various PSUs. The Department of Investment and Public Asset Management is in the process of appointing a panel of six transaction advisors who will help it with sale of non-core assets of PSUs.

About Disinvestment

- **Disinvestment** refers to the government selling or liquidating its assets or stakes in PSE (public sector enterprise).
- The Department for investment and public asset management (**DIPAM**) under Ministry of finance is the nodal agency for disinvestment
- The new economic policy 1991 indicated that **PSUs had shown a negative rate of return on capital employed due to-**
 - Subsidized price policy of public sector undertakings;
 - Under-utilisation of capacity;
 - Problems related to planning and construction of projects;
 - Problems of labour, personnel and management; and
 - Lack of autonomy.
- In this direction, the Government adopted the 'Disinvestment Policy' with main objectives-
 - To reduce the financial burden on the Government
 - To improve public finances
 - To introduce, competition and market discipline
 - To fund growth
 - To encourage wider share of ownership
 - To depoliticise non-essential services

Methods of Disinvestment

- **Stock market:** Initial Public Offering (IPO), Further Public Offering (FPO), and Offer for sale (OFS) offer are such methods through the stock markets.
- **Institutional Placement Program (IPP):** only Institutions can participate in the offering.
- **Exchange Traded Fund (ETF)-** it allows simultaneous sale of government stake in various CPSEs across diverse sectors through single offering. It provides a mechanism to monetize its shareholding in those CPSEs, which form part of the ETF basket. Currently, it consists of (i) **CPSE-ETF** and (ii) **Bharat-22 ETF**
- **Strategic Disinvestment:**
 - It is the sale of substantial portion of the Government shareholding of a central public sector enterprise (CPSE) of up to 50%, or such higher percentage along with transfer of management control.
 - It intended for efficient management of Government investment in CPSEs. Various programmes like addressing issues such as capital restructuring, dividend, bonus shares, made as part of this policy.
 - Progress was made in respect of the 28 cases of Strategic Disinvestment approved by the Government, which are at different stages, with three companies strategically sold off during FY 2018-19.



Arguments in favour of Disinvestment	Arguments against Disinvestment
<ul style="list-style-type: none"> ● Divestment is expected to fill in some of the gaps in tax revenue. ● Trade unionism and political interference often lead to halting of PSUs projects thereby hampering the efficiency in long run. ● Problem of disguised unemployment and outdated skill in PSUs employee are the major cause of inefficiency. ● Private players work out-of Red Tapism bureaucratic mentality and focus on performance-driven culture and effectiveness. 	<ul style="list-style-type: none"> ● It is against the socialist ideology of equal distribution of resources amongst the population. ● It will lead to monopoly and oligopolistic practices by corporates. ● Proceedings of disinvestment had been used to cater the fiscal deficit of the state, which would lead unhealthy fiscal consolidation. ● Private ownership does not guarantee the efficiency (Rangarajan Committee 1993). ● Disinvestment exercise had been done by undervaluation of public assets and favouritism

<ul style="list-style-type: none"> • More robust competitive bidding leads to competition in private sectors to participate in PSUs. • Moreover, it ensuring that product service portfolio remains contemporary by developing/ acquiring technology. 	<ul style="list-style-type: none"> • bidding, thereby, leading to loss of public exchequers. • Private ownership might overlook developmental region disparity in order to cut the cost of operation.
---	---

<p>Some Issues in Disinvestment</p> <ul style="list-style-type: none"> • Targets are exceeded but individual PSUs face poor response- e.g. against the target of Rs 80,000 crore in 2018-19 government received Rs 85,000 crore. However, the government had to defer the disinvestment of Bharat Earth Movers (BEML), Pawan Hans (PHL) among others. • Lack of balance in different methods- the receipts from the initial public offering (IPO) is a paltry Rs 1,900 crore, whereas over Rs 45,000 crore came from ETFs-index funds. • Lack of interest by private players- Large-scale debts accumulated by the PSUs make them unattractive for potential buyers. E.g. Air India disinvestment efforts proved to be a failure. • Opposition from Labour Unions- owing to the potential threats of losing their jobs due to increasing privatisation. <p>Steps taken to promote Disinvestment</p> <ul style="list-style-type: none"> • Fast tracking of Approvals & Procedures- Creating a pipeline of proposals for CPSEs, which at present, are at different stages of approval. • Focus on Asset Monetisation- <ul style="list-style-type: none"> ○ Identified non-core assets of CPSEs under Strategic Disinvestment. ○ Alternative Mechanism (AM), Inter-ministerial Group (IMG) and Consultative Groups have been notified ○ Hiring of intermediaries for Asset Monetisation Cell started. • Debt- ETF- <ul style="list-style-type: none"> ○ It was announced in the interim Budget 2019-20. ○ DIPAM is in the process of creating a Debt-ETF to enable CPSEs to access the debt/ bond market to partially meet the capital expenditure needs by leveraging their aggregate strength.
--

3.9. COAL INDIA

Why in news?

The Government of India is considering to break **Coal India** into separate listed companies to improve its working.

Background

- The Department of Investment & Public Asset Management (**DIPAM**) had sent a proposal to Coal India and the Ministry of Coal to list four of Coal India’s biggest production units, as well as its exploration arm.
- **Coal India Limited** is the dominant coal miner in the country. It made up 83% of domestic production and 63% of total coal supply (in tonnes) for fiscal year 2018-2019.
 - The **four units** – Mahanadi Coalfields, South Eastern Coalfields, Northern Coalfields and Central Coalfields – account for more than **three-fourths of the company’s output**, while constituting less than half of its workforce.
 - But, coal mining has been characterised by the monopoly of CIL, lack of an effective regulatory mechanism, poor exploration efforts and sub-par safety records.
- Around 70 per cent of **power generation** is coal based. India is the third-largest producer of coal in the world, but also third-biggest importer of coal, which the government wants to change by boosting local coal production.

About Coal India Limited

- Coal India Ltd. was formed in the year 1975.
- Before 1975, the Indian coal industry was plagued with a number of issues like low productivity, lack of strategic planning, lack of funds, low-grade technology and lack of regulation.
- Under government monopoly, coal production by Coal India Ltd. increased steadily.
 - However top-grade coal was still not mined extensively, prompting us to import it from countries like Australia, Indonesia and South Africa.

Related in news

100% FDI under automatic route in coal mining and sale of coal as also associated infrastructure activity has been allowed to help attract international players to create an efficient and competitive coal market.

Concerns with Coal India

- **Unable to meet growing demand despite abundant resources-** Coal India produced a record 607 million metric tons but falling short by 22% of a target proposed in 2017. The goal has been revised a few times since then, but output was still just below a revised target.

- **Declining Production-** which has fallen by 5.1 per cent and despatches by 2.9 per cent in July 2019 against the corresponding period of the last year.
- **Decline in Capacity Utilization-** due to transportation bottlenecks, management vacancies, delays in procurement and strikes and bandhs
 - **Inefficient organisation-** CIL's output-per-man shift is estimated at one-eighth of Peabody Energy, the world's largest private coal producer.
- **Delays in the projects-** Till date, CIL's 54 coal-mining projects are facing delays due to various reasons such as contractual issues and delays in securing green clearances, among other factors.
- **Under-utilization of funds-** The Standing Committee on Coal had observed that CIL had utilised only 62% of the funds allocated to it till 2016.
- **Falling share in capital markets-** CIL has a market cap of about \$28 billion, which are heading for a fifth straight year of decline.
- **Lack of availability of the latest technological equipment** for deep depths coal mining.
 - The machinery available with CIL called **open-cast mining** allows drilling mostly up to 300 meters below earth's surface, but about 40% of total coal reserves are located at a deeper depth which cannot be extracted using opencast mining.
 - Moreover, open cast mining is more preferred because it is easier, cheaper and safer than newer technology methods.
 - Hence the 40% reserves remain untouched while steel companies are forced to import coal.
- **Lack of an accurate assessment and evaluation system** of coal reserves distribution in the country.
 - Technology and systems available with CIL do not show a precise account of coal reserves, due to which they mine imperfectly.

Other Issues plaguing Coal Mining

- **Unfavourable socio-economic environment in East India-** The damage from open-cast mining is irreparable, rendering the land useless.
 - Deforestation has become rampant, hampering ecology in these areas.
 - People displacement has also increased due to infertile land and non-availability of water.
- **Civil unrest** is another important reason for not mining efficiently. Coal reserves are most highly concentrated in areas where Maoist guerrillas operate, making the area hostile for mining.
- **Increasing illegal mining and exporting of coal-** So while the nation bleeds for more coal, there are select few who engage in selfish malpractice like an illegal sale of coal for their personal gain. Litigation against them often goes on for years, so illegal mining hasn't been controlled yet.
- **Rising imports-** imports of the coal have surged to a record over the same period.
 - The reasons include higher landed costs of domestic coal at distant locations (exacerbated by high railways transportation costs), better quality of imported coal and lower ash content, selected power plant boilers being designed to a particular quality of imported coal, and a lack of domestic coking coal production (for the steel sector).
- **Infrastructure-** e.g. an overworked railway network has hampered transport of the fuel.

Advantages of breaking up CIL	Challenges of breaking up CIL
<ul style="list-style-type: none"> ● Bring competition and need for innovation ● Take up methods to foresee demand-supply situation and set long-term goals. ● Can help increase production of coal to 1 billion tonnes a year by 2020 from around 539 million tonnes in the fiscal year. ● Government can divest some of its shares, which can bring more private participation and greater managerial expertise. 	<ul style="list-style-type: none"> ● Face protests by labour unions ● There are structural differences between subsidiaries, which may not be addressed by mere change of management. ● There are a wide range of subtle cross-linkages, ranging from inter-subsidiary staff movement (management level), differences in dividend payouts etc, which will make breaking it up difficult.

Some of the recommendations of the Working Group on Coal-

- Coal companies should take possession of the entire area of land required for the life of the project at one instance to avoid delays in land acquisition.
- Special task force to grant necessary clearances such as mining lease, forest and environment clearances, and land acquisition. The number of levels and stages in the processes should be reduced.
- Opening up the sector for more private participation, especially with regard to captive mining.

- Setting up a regulatory authority, which would have powers to comprehensively handle coal resource development and regulation of its extraction and use.

Way Forward

A blanket approach of breaking a large corporation into parts may not be applicable in the case of Coal India limited due to various synergies and location specific cross-linkages present in different production units. Rather to improve the efficiencies and competition, there is a need to enhance private players, allow commercial mining and achieve a suitable number of players in public sector to optimize production.

3.10. PORT-LED DEVELOPMENT

Why in News?

Recently, Union Finance Minister stressed the need to **enhance port-led development through the Sagarmala scheme and develop inland waterways to use rivers** for cargo movement to decongest road and rail networks, reduce the cost of transportation as well as cut oil import bill.

Port Sector in India

- **Port led development** is a integrated approach to modernise the ports and to integrate them with special economic zones (SEZs), port-based smart cities, industrial parks, warehouses, logistics parks and transport corridors in the country.
- India, with its 7517 km-long coastline and 200+ ports plays a **vital role in global trade**.
- Being **strategically located** on the world's shipping route, the Indian Ports & Shipping industry sustains growth in the country's trade and commerce.
- Maritime transport in India handles **70% of the trade by value**
- Along with the ambitious **Sagarmala Programme** launched in March 2017, the Government of India has also introduced various fiscal and non-fiscal incentives for enterprises that develop, maintain and operate ports, inland waterways and shipbuilding in India.

How port led development can help India?

- **Development of port infrastructure:** It would enhance port connectivity, modernisation and port-linked industrialisation.
- **Benefiting to Coastal communities:** It would lead to development of coastal communities. With 42 per cent of India's population living in the coastal states, it can make a positive impact on the lives of more than 500 million people.
- **Inland waterways:** The programme like Sagarmala for port led development would have large impact on hinterland states also, through the development of 111 inland waterways.
 - **Jal Marg Vikas Project** is expected to benefit densely populated states of Uttar Pradesh, Bihar, Jharkhand and West Bengal through the development of national waterways-1.

Sagarmala Project

- Its main objective is to **promote port-led direct and indirect development and to provide infrastructure to transport goods** to and from ports quickly, efficiently and cost-effectively.
- It aims at:
 - optimizing multi-modal transport to reduce the cost of domestic cargo
 - minimizing the time and cost of export-import cargo logistics
 - lowering costs for bulk industries by locating them closer to the coast
 - improving export competitiveness by locating discrete manufacturing clusters near ports

Components of Sagarmala Programme are:

- **Port Modernization & New Port Development:** De-bottlenecking and capacity expansion of existing ports and development of new greenfield ports
- **Port Connectivity Enhancement:** Enhancing the connectivity of the ports to the hinterland, optimizing cost and time of cargo movement through multi-modal logistics solutions including domestic waterways (inland water transport and coastal shipping)
- **Port-linked Industrialization:** Developing port-proximate industrial clusters and Coastal Economic Zones to reduce logistics cost and time of EXIM and domestic cargo
- **Coastal Community Development:** Promoting sustainable development of coastal communities through skill development & livelihood generation.

Impact of Sagarmala Programme:

- Mobilization of over US\$61.6 billion of infrastructure investment
- Double the share of inland and coastal waterways in the modal mix
- Yield cost savings of US\$5.3-6.1 bn in logistics annually
- Boost merchandise exports by US\$110 bn
- Create 4 mn new direct jobs and 6 mn indirect jobs

- **Tourism:** Multiple cruise tourism centers have been launched including in Mumbai, Chennai and Cochin. These would provide a significant boost to the tourism industry in India.
- **Export and Import:** Indian ports handle more than 90 per cent of India's total EXIM trade volume. Port led development is critical to boost India's exports and imports.
- **Easy movement of cargo:** By linking major and non-major ports, industrial clusters and evacuation infrastructure into a single system at a larger regional level, it will enable seamless and efficient movement of cargo through gateways, thereby allowing ports to enhance competitiveness and offer multiple freight options to customers.
- **Decreasing Logistics Costs and enabler of 'Make in India':** Logistics costs have a crucial role to play in international trade. Port led development will help in reducing logistics costs for domestic and international trade cargo.
 - By making transport water-based, we can reduce our logistics costs, which in India is between 16-18 per cent, but in the next two-three years, through the successful execution of Sagarmala and Bharatmala programme, it is expected to come down to match the global average.

Challenges faced

- **Poor performance of Government ports:** It takes up to four times as long to fill or unload a cargo ship at Jawaharlal Nehru Port than at private rival.
 - Most of the major ports are overstaffed with unskilled and untrained labour and the development of such ports may suffer due to frequent labour strikes, inefficiency and low labour productivity.
- **Procedural and policy related challenges:** The presence of a dual institutional structure that has led to the development of major ports (those owned by the central government) and non-major ports (those owned by the state governments) as individual projects.

Related Facts

Inland waterway in India

- India has about **14,500 km of navigable inland waterways**, of which 5,200 km (36 per cent) major rivers and 485 km (3 per cent) canals are conducive to the movement of mechanized vehicles.
- There are **five National Waterways (NWs)** spanning approximately about 4,400km have been outlined as potential inland waterways at the Ganges, the Brahmaputra rivers, the West Coast Canal, the Godavari and Krishna rivers, and the East Coast Canal respectively
- The share of India's **inland water transport cargo traffic to the logistics market is significantly lower** at 0.5 per cent as compared to China at 8.7 per cent and Europe at 7 per cent.
- The estimated **cargo movement on these waterways by the year 2022 is estimated to be 159 million tonnes** according to the report on Integrated National Waterways Transportation Grid submitted by RITES in 2014.
- Inland waterways offers helps in India in terms of **reduced transportation costs, capital savings, infrastructure development, increased economic opportunities, environment friendly etc.**

Other Steps taken by government for Port Sector

- **Multi model terminal:** India's first multi-modal terminal on inland waterways was inaugurated on by Prime Minister in Varanasi
- **Coastal Economic Zones:** 14 CEZs are being developed under Sagarmala initiative covering all the Maritime States.
 - CEZs are spatial economic regions comprising of a group of coastal districts or districts with a strong linkage to the ports in that region.
 - CEZ will help to tap synergies of planned economic corridors
- **Jal Marg Vikas project:** for the capacity augmentation of navigation on the Haldia-Varanasi stretch of National Waterway-1 (Ganga) with the assistance of the World Bank.
- **Dry ports:** Commerce Ministry announced overhauling of the infrastructure standards in Dry Ports or Inland Container Depots (ICD's).
 - Dry Ports are inland terminal, directly connected to a seaport by rail or road, which provides similar services as that of a seaport such as handling, temporary storage, inspection and customs clearance for international freight etc.
- **River Information System:** Ministry of Shipping inaugurated the Phase 2 of the River Information System on National Waterway1 (River Ganga) between Farakka and Patna (410 km)
- **Various Legislation:** Major Ports Authority Bill 2016, Merchant Shipping Bill 2016, National Waterways Act 2016 and New Shipbuilding policy.
- Coastal Regulation Zone (CRZ) Notification, 2018.
- Relaxation in Cabotage restriction on the movement of foreign ships
- Project Sethusamudram
- 100% FDI in the shipping sector
- 100% FDI is under automatic route for projects related to the construction and maintenance of ports and harbours
- 10-year tax holiday is extended to enterprises engaged in the business of developing, maintaining, and operating ports, inland waterways, and inland ports
- SEZs being built in close proximity to ports

- The involvement of multiple agencies in the development of infrastructure to promote industrialization, trade, tourism and transportation across the country is another deterrent.
- **Less Private participation:** The financial viability of port projects is a major deterrent for private developers as well as financiers. Greenfield port projects are usually in remote locations and considerable government level support is required to create basic infrastructure for site access.
- **Lack of infrastructure:** For evacuation of cargo at major and non-major ports leading to a sub-optimal transport modal mix.
- **Limited hinterland linkages** which leads to increase in transportation costs.
- **Lack of equipment for handling large volumes**

Way forward

- **Complete relaxation of cabotage:** To enhance shipping capacity for coastal movement and facilitate availability of adequate vessels at lower cost.
- **Increasing investments and cargo traffic point towards a healthy outlook for the Indian ports sector:** Providers of services such as operation and maintenance (O&M), pilotage and harbouring and marine assets such as barges and dredgers are benefiting from these investments.
- **Digital transformation in shipping:** Through technologies such as Internet of Things (IoT), Blockchain, Machine Learning, Artificial Intelligence (AI), Analytics, and Augmented & Virtual Reality
- **Certain policy reforms:** Such reforms should be aimed at upgrading infrastructure at Indian ports, implementing new land policy for major ports, establishing a port regulator at all ports to monitor and regulate services and technical and performance standards, simplifying the environmental clearance process for port projects, establishing a special purpose vehicle for making investments in ports, developing major new ports, and so on.

3.11. INDUSTRIAL CORRIDORS

Why in news?

Recently, the **Dholera Special Investment Region** is one of the several greenfield cities that have been planned on the Delhi Mumbai Industrial Corridor (DMIC).

Background

- Special Investment region is a specifically delineated industrial region with a minimum area of around 200 square kilometres.
- **The Delhi Mumbai Industrial Corridor (DMIC)**, serving as a manufacturing and trading hub, plans to develop five cities as Special Investment Region along the line.
- The **Delhi- Mumbai Industrial Corridor Development Corporation (DMICDC)**, has identified five infra verticals, five social sector verticals which when combined will make greenfield cities into **smart city**.
- The **other four** are Shendra-Bidkin in Maharashtra, Vikram Udyogpuri Township in Ujjain, Integrated Industrial Township in Greater Noida and Global City in Gurgaon.

About Industrial Corridors

- An industrial corridor is a package of infrastructure spending allocated to a specific geographical area, with the intent to stimulate industrial development.
- It aims to create an area with a cluster of manufacturing or other industry.
- Such corridors are often created in areas that **have pre-existing infrastructure**, such as ports, highways and railroads.
- The Government is developing or planning to develop 5 Industrial Corridors in the country, as follows:
 - **Delhi Mumbai Industrial Corridor (DMIC)** covering the States of Uttar Pradesh, Haryana, Rajasthan, Madhya Pradesh, Gujarat and Maharashtra.

About DMICDC

- Officially launched in 2006, the stake in DMIC Development Corporation (DMICDC) – the implementation agency – is divided amongst the Indian government (49 per cent), Japan Bank for International Cooperation (26 per cent), and government financial institutions (the remainder).
- Japan, aside from providing state-of-the-art technology and expertise to the project, has also pledged financial support to the extent of \$4.5 billion in the first phase at a nominal rate of 0.1 per cent

- **Chennai Bengaluru Industrial Corridor (CBIC)** covers the States of Tamil Nadu, Andhra Pradesh and Karnataka.
- **Bengaluru Mumbai Economic Corridor (BMEC)** covers the States of Maharashtra and Karnataka.
- **Amritsar Kolkata Industrial Corridor (AKIC)** covers the States of Punjab, Haryana, Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal.
- **East Coast Economic Corridor (ECEC)** covers the States of West Bengal, Odisha, Andhra Pradesh and Tamil Nadu.

Significance of Industrial Corridors in India's Economic Development

- **Integration of economy:** Industrial Corridors recognize the inter-dependence of various sectors of the economy and offer effective integration between industry and infrastructure leading to overall economic and social development.
- **Boosting growth:** These corridors are spread across India, with **strategic focus on inclusive development** to provide a boost to industrialization and planned urbanization.
 - Smart cities are being developed along these corridors. These cities, with state-of-the-art infrastructure, will house the new workforce that is required to power manufacturing, in turn leading to planned urbanization.
- **Manufacturing a key economic driver in each of these projects:** These projects are expected to play a critical role in raising the share of contribution of the manufacturing sector from approximately 16% to 25% by 2025.
- **Development of Infrastructure:** Industrial corridors constitute world class infrastructure such as high-speed transportation (rail, road) network, ports with state-of-the-art cargo handling equipment, modern airports, special economic regions/ industrial areas, logistic parks, knowledge parks focused on feeding industrial needs, complementary infrastructure such as townships/ real estate, and other urban infrastructure.
 - The dedicated freight corridor (DFC) covering a length of nearly 1,500 km will support high-speed train connectivity and will run almost parallel to the Delhi–Mumbai Golden Quadrilateral national highway.
- **Encouraging Private Sector's Participation:** Industrial corridor provides opportunities for private sector investment in the provision of various infrastructure projects.
- **Long-term advantages to business and industry along the corridor** include benefits arising from smooth access to the industrial production units, decreased transportation and communications costs, improved delivery time and reduction in inventory cost.
- **Attracting investments:** The strategy of an industrial corridor is intended to develop a **sound industrial base**, served by world-class competitive infrastructure as a prerequisite for **attracting investments into export-oriented industries and manufacturing**.
- Skill development of the local populace and generation of three million job opportunities as stated by the DMIC (two million in the manufacturing/processing sectors).

Concerns

- **Might promote inequalities:** As might lead to the mushrooming of large industries at the expense of small-scale ones, even though the latter tend to generate more employment and are more favourable to smaller players who often have limited access to capital and resources.
- **Smart cities:** which provide the glam factor to the Industrial Corridors like DMIC – themselves have come under flak. For instance, the Rs 78,000 crore Gujarat International Finance Tec-City, or GIFT is used as an example of how smart cities may not always be a smart strategy. The city, expected to create one million direct and indirect jobs, hasn't been able to attract even 50 per cent total occupancy of its two 29-storey buildings.
 - As per Centre for Science and Environment (CSE), these new towns do not have clear benchmarks, implementation strategies, or strong regulatory safeguards. Smart city doesn't necessarily mean smart investment in the nation's future.
- **Governance issues:** These industrial corridors can be governed by bodies comprising of private companies and individuals, unlike an elected panchayat or municipalities. A widespread fear is that by elevating non-elected personnel and entities to governing positions, dilution of existing regulations as well as democracy will occur. Also, accountability and dispute resolution will become that much more difficult.

- For example: **Dholera SIR**, is home to small farmers and at a perpetual risk of flooding. Activists have protested against its implementation for months citing the impact on subsistence and landless farmers, the faulty impact assessment, and the broader environmental impact of the proposed urbanisation.
- **Land-acquisition hazards:** There are multiple court cases are going on in various high courts, filed by landowners, farmers, and people whose livelihoods are dependent on the land.
- **Lack of Civil Society's Participation:** For a project that has deep and irreversible impact on multiple stakeholders including the very citizens that it claims to be designed for, there has been very little consultation with civil society groups and elected bodies on its overall structure and policy

Conclusion

While infrastructure in terms of connectivity, power and technology is obviously important, how does these projects reconcile these with the other kind of infrastructure—land and water—is to be analysed for the long-term success of the Mega Industrial Projects.

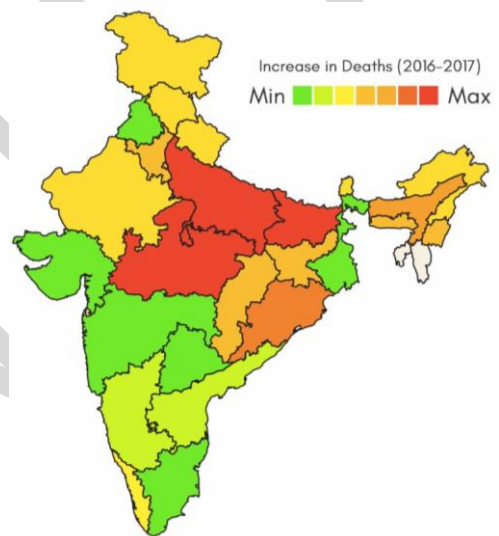
3.12. ROAD SAFETY

Why in news?

As per the data placed by the Government in the Parliament, road accidents in India killed 400 or more deaths, on a daily average, in each of the three years between 2015 to 2017.

About Road Safety

- Road safety has become a serious **public health issue** in India, given the increasing number of casualties due to road accidents.
- There are serious costs associated with road accidents such as-
 - **Economic Cost:** Planning Commission of India stated that over 3% of India's GDP is lost to road accidents annually, and this amounted to 3.8 lakh crore rupees in 2016.
 - **Social Cost:**
 - ✓ Pedestrians constitute 19 percent of total deaths in road accidents in India. They are the most vulnerable road users as they have **lesser protection in case of road accidents.**
 - ✓ Loss of family member, especially earning member leads to poverty and social distress. Moreover, disabilities occurred in accident lead to loss of human productivity and stigma.
 - **Administrative Cost:** includes traffic management, enforcement of law, resource costs (clearance of damage property) and insurance administration.
- Thus, it is crucial that road safety is addressed on an urgent basis. Further, in many of the larger states, **deaths due to road accidents have increased in recent times.**



Issues in addressing road safety

- **Increasing number of vehicles on roads in many areas-** due to following factors like increasing urbanisation and migration in the country.
- **Increasing vulnerability of pedestrians-** due to factors such as-
 - Designated footpaths are routinely **encroached by parked vehicles** and shops especially in urban area, force the pedestrians to walk on roads.
- **Indifference towards good Samaritan approach:** There is a lack of **helping hand approach among people** at the time of accidents. This is due to consequential legal hearing and repeated appearances in the police station for investigation.

- **Needs coordination between different stakeholders-** In a federal set up much depends on efforts of States to mobilise data on road accidents.
 - **World Health Organisation (WHO)** recommends countries to have a **national urban maximum speed limit of 50 km/hour**. But some states like Uttar Pradesh fall below this bracket with a 40 km/hour limit while those in Andhra Pradesh and Maharashtra can go up to 65 km/hour
- **Inadequate implementation of provisions-** by the enforcement agencies, due to which there is lower number of prosecutions of law-breakers. It does not allow **effective deterrent** to be created in the minds of violators.
- **Improper road engineering-** due to which the road infrastructure in India suffers from poor design quality, poor visibility leading to higher chances of accidents.

Steps taken to improve road safety in India

- **Pradhan Mantri Surakshit Sadak Yojana** launched with initial funding of about Rs 2,000 crore which will eliminate dangerous spot from highways.
- Recently government made it mandatory for two-wheeler from April 2019 onward to have **Anti-Break lock System** in order to improve control over the vehicle at the event of emergency braking.
- Government had signed the **Brasilia declaration in 2015**, committing to reduce road accident and fatality by half.
- The Union Government issued guidelines to be followed by hospitals, police and all other authorities for the protection of **Good Samaritans**.
- **Draft National Action Plan** aimed at halving number of road accident deaths by 2020.
- Passage of **Motor Vehicle (Amendment) Act, 2019**.

Suggestions to enhance road safety include

- Policy shift towards applied scientific study for roads instead of widening and expending the length and coverage of road is need of hour. A combination of scientific investigation of road crashes, rigorous data analysis and interventions across engineering, enforcement, education, and trauma care are the key to road safety in India.
 - S. Sunder committee 2007 on road safety highlighted the need for scientific study of road infrastructure, which includes effective road engineering solutions at the design stage, rectification of accident hot spots etc.
 - It also advocated the establishment of Directorate of Road Safety and Traffic Management for advocacy in changing road safety scenario.
- **Safe system approach** of World Health Organisation recognised that people' role in road safety cannot be eliminated completely by penalisation methods, rather the policy approach should be shifted towards education and awareness for all the strata of society.
- Modernise the **vehicle technology** such as collision-avoidance systems, (semi-)autonomous vehicles, stability control, improved road-vehicle interaction, automatic braking systems and air cushion technology and speed limiters on fleet vehicles.

Motor Vehicle (Amendment) Act, 2019

The act has amended the Motor Vehicles Act, 1988 to provide for road safety. It has been passed in the Parliament. Some of its key provisions are-

- **Compensation for road accident victims:** The central government will develop a scheme for cashless treatment of road accident victims during golden hour. The Bill defines golden hour as the time period of up to one hour following a traumatic injury, during which the likelihood of preventing death through prompt medical care is the highest.
- **Compulsory insurance:** The Act requires the central government to constitute a Motor Vehicle Accident Fund, to provide compulsory insurance cover to all road users in India.
- It sets up a **National Road Safety Board** that will advise the government on road design and motor vehicle safety.
- **Good samaritans:** The Act defines a good samaritan as a person who renders emergency medical or non-medical assistance to a victim at the scene of an accident.
- **Offences and penalties:** The Act increases penalties for several offences under the Act. For example, the maximum penalty for driving under the influence of alcohol or drugs has been increased from Rs 2,000 to Rs 10,000.
- **Recall of vehicles:** The Act allows the central government to order for recall of motor vehicles if a defect in the vehicle may cause damage to the environment, or the driver, or other road users.

- **Good transport and National Freight Policy** should be implemented to ease-out the traffic burden on passenger vehicles.
- Teaching **life-saving first-aid** to people likely to be first on the scene of a road traffic accident could have a similar effect.
 - According to the WHO, a project to teach first-aid skills to people in parts of Cambodia and in northern Iraq has seen encouraging results in landmine-related deaths. With just basic supplies and no ambulances, mortality fell from 40% to 9%.
- For effective road safety in the country, new policies and actions should be based on **Brasilia Declaration of 2015**, which call for rethinking the transport policies in order to favour more sustainable methods and modes of transport.

“ The Secret To Getting Ahead Is Getting Started ”



ALTERNATIVE CLASSROOM

PROGRAM *for*

GENERAL STUDIES

PRELIMS & MAINS 2021 & 2022

DELHI

Regular Batch

Weekend Batch

23 Aug
2 PM

18 Sept
9 AM

6 July
9 AM

- Approach is to build fundamental concepts and analytical ability in students to enable them to answer questions of Preliminary as well as Mains examination
- Includes comprehensive coverage of all the topics for all the four papers of GS Mains , GS Prelims and Essay
- Includes All India GS Mains, Prelim, CSAT and Essay Test Series of 2020, 2021, 2022
- Our Comprehensive Current Affairs classes of PT 365 and Mains 365 of year 2020, 2021, 2022 (Online Classes only)
- Includes comprehensive, relevant and updated study material
- Access to recorded classroom videos at personal student platform

Scan the QR CODE to
download **VISION IAS** app



4. SECURITY

4.1. UNLAWFUL ACTIVITIES (PREVENTION) AMENDMENT ACT, 2019

Why in news?

Recently, the **Unlawful Activities (Prevention) Amendment Act, 2019** was passed in the Parliament of India.

Background

- The **Unlawful Activities (Prevention) Act 1967** was enacted to provide for the more effective prevention of certain unlawful activities of individuals and associations and for matters connected therewith.
 - It was enacted after the Indo-China war and threat posed by the DMK contesting elections in Tamil Nadu with secession from India being part of their manifesto.
- Owing to the changing nature of crime and need to have legal provisions to effectively deal with them, amendments were required.
 - Its scope has been expanded and evolved over various amendments (Refer the box).
- This Amendment Act 2019 has also incorporated some of the aspects.

Evolution of UAPA, 1967

- **Amendments in 2004-** It criminalised raising of funds for a terrorist act, holding proceeds of terrorism, membership of a terrorist organization, and support given to a terrorist organization by inserting specific chapters.
- **Amendments in 2008-** It enlarged the scope of the provision of “funds” to ensure a broader coverage of the financing of terrorism offences.
 - The definition of **property** was expanded to bring the legislation in line with the requirements of the **International Convention for the Suppression of the Financing of Terrorism (CFT)**.
 - A new **section 51A** was inserted to give effect to the United Nations Security Council Resolutions 1267 and 1373 and to establish a mechanism for “freezing, seizing or attaching funds”.
 - After the Mumbai attacks, more amendments were adopted which brought provisions similar to POTA and TADA regarding maximum period in police custody, incarceration without a charge sheet and restrictions on bail.
- **Amendments in 2012-** It further expanded the already vague definition of “terrorist act” to include offences that threaten the country’s economic security.

Key Amendments in the legislation

- **Expands the scope of terror entities-** Previously the central government may designate an organisation as a terrorist organisation, if it, prepares or commits or participates or promotes or otherwise involved in terrorism.
 - Now the government is empowered to **designate individuals as terrorists** on the same grounds.
- **Approval for seizure of property-** Earlier an investigating officer was required to obtain the prior approval of the Director General of Police to seize properties that may be connected with terrorism.
 - Now, if the investigation is conducted by an officer of the National Investigation Agency (NIA), the approval of the Director General of NIA would be required for seizure of such property.
- **Empowering NIA:** Earlier, the investigation of cases may be conducted by officers of the rank of Deputy Superintendent or Assistant Commissioner of Police or above.
 - This Bill additionally empowers the officers of the NIA, of the rank of Inspector or above, to investigate cases.
- **Insertion to schedule of treaties:** There were nine treaties listed in a schedule (like Convention for the Suppression of Terrorist Bombings (1997), and the Convention against Taking of Hostages (1979)) to the Act, according to which the Act defines terrorist acts to include acts committed under those treaties.
 - This Bill adds the **International Convention for Suppression of Acts of Nuclear Terrorism (2005)** to the list.

Some other laws to prevent terror activities

- National Safety Act (NSA), 1980
- Armed Forces (Special Powers) Act (AFSPA), 1958
- **Many states have their own anti terror laws** – such as the Maharashtra Control of Organised Crime Act, 1999; Chhattisgarh Special Public Security Act, 2005; Jammu and Kashmir Public Safety Act, 1978; and Andhra Pradesh Public Security Act, 1992.

Need and Benefits of these amendments

- **Increasing threats of terrorism-** especially emanating from the cross border infiltration, which have caused multiple civilian as well as defence casualties in India.

- **Many individuals escaped the radar-** Not designating individuals as terrorists, would give them an opportunity to circumvent the law and they would simply gather under a different name and keep up their terror activities.
 - The UN along with several other countries, have provisions in their laws to designate individuals as terrorists. E.g. India itself was not able to designate **Masood Azhar** as a terrorist even though India lobbied for the same in the UN Security Council.
 - Further, there are various **lone wolfs** which do not belong to any organisation and carry out attacks. They will be brought under the purview of this act now.
- **Delay in the current process-** the law required that NIA take prior permission from the respective state DGP to attach the proceeds of terrorism. This delays the process as often such properties are in different states.
 - When NIA takes up a case having international and inter-state ramifications, all the facts pertinent to the case are with the NIA, and not with the state police.
- **Requirement of Human Resources-** By empowering officers with the rank of inspectors and above to investigate, the amendment seeks to solve the human resource crunch in the NIA.
 - The inspector rank officers have, over time acquired sufficient proficiency to investigate UAPA related cases.
 - This move would quicken the delivery of justice in UAPA related cases, which are reviewed by senior officers at various levels.

Concerns with the amendment

- **Draconian Provisions-** The Central Government will be having the power to declare an individual as 'terrorist', which potentially dangerous because it will empower officials of Union Ministry to brand any person as a terrorist without following due process.
 - The only remedy available to the person is to make an application to the Central Government, which will again be reviewed by a committee formed by the Government itself.
 - The individual may face harassments in the form of social boycott, expulsion from job, hounding by media and perhaps attack from the self-proclaimed vigilante groups.
- **Potential of misuse-** The terms terrorist propaganda, terrorist literature etc. are vague terms having a potential of being misused by the authority. When a law is based on such loose concepts, officials may find it convenient to slap it against anybody.
 - There are instances of slapping UAPA against people for merely possessing revolutionary literature (the case of Anand Teltumbde).
 - Many human rights activists, writers and journalists may run the risk of being branded as terrorists.
- **Goes against the judicial prudence-** if a person is labelled as 'terrorists merely on the basis of speech and thought. Rather it should be considered only if such speech gives rise to direct and imminent violence.
 - In State of Kerala vs Raneef, the Supreme Court observed that one cannot be penalized for merely belonging to an unlawful organization if there is no active participation.
 - Recently, a division bench of High Court of Kerala upheld the compensation of Rs. 10 lakhs ordered by a single bench to a man who was illegally arrested on grounds of possessing Maoist Literature.

Way Forward

- **Safeguards against misuse-** The Act have provisions for **four level scrutiny** before any decision is taken on designation of an individual as a terrorist. Proper legal and concrete evidence has to be there to support this and there will be close scrutiny at every level.
 - The different agencies of state should ensure that **due process of law** is applied while dealing with various cases under this legislation.
- **Need to ensure state of the art training-** of young officials as to make them competent in tackling complex cases.
- **Need for a central agency for overseeing evidence collection-** so as to aid investigation process, especially when cases need to connect dots across the borders.
- The primary duty of the state is to **secure the lives and property** of its citizens and this amendment empowers the state in doing so.

4.2. NIA (AMENDMENT) ACT, 2019

Why in news?

The Parliament recently passed the **National Investigation Agency (Amendment) Act 2019**, which seeks to expand the powers and jurisdiction of the NIA.

Background

- The **NIA Act, 2008**, governs the functioning of India's premier counterterror agency, the **National Investigation Agency**, which was brought in the wake of the 26/11 Mumbai terrorist attacks.
 - It makes NIA the only truly federal agency in the country, along the lines of the FBI in the United States, and more powerful than the CBI.
 - It has various advantages over other investigation agencies such the **Central Bureau of Investigation (CBI)**, which has to seek the permission of a state government before investigating a case against a central government employee in that state. Whereas, the NIA has powers to take suo motu cognisance of terrorist activity in any part of India and to register a case, to enter any state without needing permission from its government, and to investigate and arrest people.
- NIA has a good performance track as out of 272 cases registered, charge sheets have been filed in 199 cases; prosecution is over in 51 cases and convictions has been achieved in 46 cases.
- However, there were some issues which impacted the working of NIA like-
 - The NIA can only investigate cases, which are **listed in the Act's schedule**, which largely deal with the security and integrity of the country. This means the NIA cannot probe murder and rape cases, which come under the Indian Penal Code (IPC).
 - The NIA cannot investigate the offences committed outside India.
- To address these concerns, this amendment bill was brought in the Parliament.

Key Amendments

- **Enhances the scope of Offences:** which are mentioned in the schedule to the Act, such as the Atomic Energy Act, 1962, and the Unlawful Activities Prevention Act, 1967.
 - This amendment enhances this scope to include other offences like human trafficking; offences related to counterfeit currency or bank notes; manufacture or sale of prohibited arms; cyber-terrorism; offences under the Explosive Substances Act, 1908.
- **Enhances the jurisdiction of the NIA:** as the officers of the NIA will have the power to investigate scheduled offences committed outside India, subject to international treaties and domestic laws of other countries.
 - The Union government may direct the NIA to investigate such cases, as if the offence has been committed in India.
 - The Special Court in New Delhi will have jurisdiction over these cases.
- **Additional Provisions for Special Courts:** The NIA Act allowed the central government to constitute Special Courts for the trial of scheduled offences.
 - Now the central government may designate **Sessions Courts as Special Courts** for the trial of scheduled offences, but in consultation with the Chief Justice of the High Court under which the Sessions Court is functioning.
 - When more than one Special Court has been designated for any area, the senior-most judge will distribute cases among the courts.
 - Further, state governments may also designate Sessions Courts as Special Courts for the trial of scheduled offences.

Arguments in favour of this amendment

- **Increase in terror attacks-** after the Prevention of Terrorism Act (POTA) was repealed and with these lacunae in the NIA act, the agencies were inadequately armed to deal with such activities.
- **Presence of ambiguity weakened the case-** So far, the NIA could apply the sections to an accused only if the principal offence is part of its Schedule. Now, it can prosecute people in standalone cases under these Acts. For example, a person being prosecuted under UAPA could be slapped with Arms Act sections, but the NIA so far could not prosecute him under the Arms Act alone.

- **Presence of such powers with all major agencies-** of the world such as the **FBI** of the US. It was able to prosecute David Coleman Headley in the 26/11 attacks because they had powers to register a case in a terror attack that had happened in a foreign country.
 - On the other hand, this lacuna was a reason why the case against the Italian Marines who had shot dead an Indian fisherman off the coast of Kerala in 2012 was not investigated properly. The offence had taken place in international waters, and thus NIA had no jurisdiction
- **Help in faster adjudication-** Earlier, setting up special courts in any state would take six to nine months since a proposal had to be made, High Courts' concurrence had to be obtained, a judge had to be nominated, and a court had to be set up. With existing sessions courts allowed to function as special courts, trial can start immediately.

Arguments against this amendment

- **Potential of Misuse-** several opposition leaders criticised the bill and accused the government of using investigating agencies for “**political vendetta**”. Some MPs said the anti-terror law is misused at times to target members of a particular community.
- **Judiciary is already overburdened-** and by designating the session's courts as special courts, it would take away its attention from usual business of the courts.

Way Forward

The functioning of NIA should not depend on political mandate, but on rule of law. It must be ensured that human rights are secured.

4.3. TERROR FINANCING

Why in news?

Recently, in the **Informal BRICS Meeting**, on the margins of G20 Osaka Summit, India along with other BRICS members underlined their resolve to make the **international financial system entirely hostile to terrorist financing**.

Background

Terrorist financing involves the solicitation, collection or provision of funds with the intention that they may be used to support terrorist acts or organizations.

- Terror organizations through a wide range of de-centralized and self directed network mobilize funds for meeting their organizational expenses
- Funds may stem from **both legal and illicit sources**
- In 2015, the Islamic State (IS) emerged as the world's richest terrorist organisation with a budget of nearly \$1.7 billion.

Sources of generation of funds by terror outfits.

- **Financial support from state entities-** that can generate the funds and ensures its long term availability
- **Self-funding-** through their local contributions, donations, Zaquat, overseas collections among others.
- **Diversion of funds-** by non-governmental and charitable organizations
- **Revenue generating activities-**
 - **Criminal activities** from low level fraud to well-planned crimes, extortion, protection money, drug trafficking, gun running, counterfeiting etc. e.g. the Al-Shabab (Somalia) profit from wildlife poaching and the ivory-trade
 - **Legitimate businesses** such as investments in local businesses, commercial enterprises acting as front companies, real estate dealings etc.
- **De-Centralisation of Terror-**
 - E.g. The Al Qaida convinced its followers to build bombs at home.

Indian Scenario

- A distinct linkage between **crime and money laundering** in terror financing characterizes Indian scenario.
- It is also evident that **three stage progression of terror financing** - state sponsored, privatized and globalized finance of terrorism, has been in operation in promoting and sustaining terrorism in India.

- **Naga Insurgency**- was supported by China in the form of training, weapons and finances in the sixties and mid-seventies.
- **Indian Mujahedeens**- have been supported by Pakistan which used the 'trinity' network of globalization, privatization and criminal activities in tandem.
- Thus, due to its intricate nature, terror financing has turned into a complex challenge for the policy makers and law enforcing agencies of India.

Various challenges of Combating Terror Finance in India

- **Difficult to prove illegality of financing**- terrorism is inherently illegal, while terrorism finance, unless proved and linked with terrorism, could continue to remain a completely legal process.
- **Involves multiple complex processes**- from generation of funds for terror and its movement from varied sources to the final destination.
 - **Involves multiple players**- including internal as well as external state and non-state actors.
- **Seamless integration**- terrorism finance rides over a financial network, which is seamless and transcends geographical boundaries. This implies application of multiple laws in different countries, which often makes prosecution complicated, and creates lacunae in their interpretation.
- **Sensitivity of some collections**- collection of funds for charitable purposes is often a sensitive issue and can have religious overtones. e.g. **Zakat**, as a means of collecting charity in countries like Saudi Arabia and Pakistan, has been misused in the past and funnelled for terrorism finance.
- **Faster evolution of ways of terror financing**- than most monetary systems and regulatory mechanisms. Majorly, the authorities focus on old systems like hawala for transferring value, to e-commerce in the cyber world etc. However, there are reports of new ways of terror financing, such as "**digital laundering**".
 - Terrorism finance continues to change its sourcing and means of transit of funding, thereby making it more difficult to detect.
- **Difficult to catch small financing**- most acts of terrorism require very little funding to execute. Therefore, the pursuit of large and abnormal fund transfers with the aim of stalling such attacks is likely to result in failure.

Steps taken to combat terror financing in the country

- **Strengthening the provisions in the Unlawful Activities (Prevention) Act, 1967** to combat terror financing by criminalizing the production or smuggling or circulation of high quality counterfeit Indian currency as a terrorist act and enlarge the scope of proceeds of terrorism to include any property intended to be used for terrorism.
- A **Terror Funding and Fake Currency (TFFC) Cell** has been constituted in National Investigation Agency (NIA) to conduct focused investigation of terror funding and fake currency cases.
- A **Financial Intelligence Unit** has been constituted to combat trans-national movement of illicit funds
- **An advisory on terror financing** has been issued in April 2018 to States/ Union Territories. Guidelines have also been issued in March, 2019 to States/ Union Territories for investigation of cases of high quality counterfeit Indian currency notes.
- **Training programmes** are regularly conducted for the State Police personnel on issues relating to combating terrorist financing.
- **FICN Coordination Group (FCORD)** has been formed by the Ministry of Home Affairs to share intelligence/information among the security agencies of the states/centre to counter the problem of circulation of fake currency notes.

Global and Regional Efforts

- **India-U.S. Economic and Financial Partnership Dialogue**- provides for information sharing between the two countries' regulatory agencies.
- India is also consistently urging the UN member states to adopt a global terrorism treaty – the **Comprehensive Convention on International terrorism**.
- **SAARC countries** have accepted the International Convention for the Suppression of the Financing of Terrorism of 1999 and UNSCR 1267.
- **Financial Action Task Force (FATF)**- is an inter-governmental body established in 1989 & is mandated to set global protocols and standards to combat money laundering and other financial crimes with direct ramifications to terrorist acts across the globe.
- **Asia-Pacific Group on Money Laundering**- is an inter-governmental organisation, consisting of 41 member jurisdictions, focused on ensuring that its members effectively implement the international standards against money laundering, terrorist financing and proliferation financing related to weapons of mass destruction.

- Security at the international borders has been strengthened by using new surveillance technology, deploying additional manpower for round the clock surveillance, establishing observation posts along the international border, erection of border fencing and intensive patrolling.
- A Memorandum of Understanding (MoU) has been signed between India and Bangladesh to prevent and counter smuggling and circulation of fake currency notes.
- Training programmes are conducted for the Police officials of Nepal and Bangladesh to sensitize them about smuggling/ counterfeiting of Indian currency.
- Intelligence and security agencies of Centre and States work in tandem to keep a close watch on the elements involved in terror funding activities and take action as per law.

Way Forward

- A **comprehensive and effective legal framework** to deal with all aspects of terrorism needs to be enacted. The law should have adequate safeguards to prevent its misuse.
- Each agency should be identified as part of the SWOT analysis and thereafter the Counter strategy should have a coordinating and representative presence of each agency at the policy making and enforcement level
- Government should overhaul their entire approach to combat terror-financing, shift their focus away from the financial sector and link it to a **broader strategy** that includes military, political and law-enforcement measures.

4.4. POLICE REFORMS

Why in news?

The **Bihar police** is bifurcating its Police forces on the lines of investigation and law and order, as per the **directives given by the Supreme Court** under the landmark **Prakash Singh Case in 2006**.

Why India needs urgent police reforms?

- **Ever increasing threat:** Internal security is very much a **prerogative of police** and efficient policing is needed in order to tackle these threats. With the advancement in technology, newer versions of threats are continuously arising in the form of **cyber-attacks, bank frauds, and organised crimes**, which need to be tackled in a more specialised manner. Against all these security threats, the **first line of defence is the police system**.
- **Myriad deficiencies in the Police Investigation:** Crime investigation requires skills and training, time and resources, and adequate forensic capabilities and infrastructure. **The Law Commission and the 2nd ARC** have noted that state police officers often neglect this responsibility because they are **understaffed and overburdened** with various kinds of tasks.
 - They also lack the training and the expertise required to conduct professional investigations.
- **Increasing interference by the government:** As per the police laws, both the Central and State police forces come under the superintendence and control of political executives. This enables the executives to reduce the police to mere tools in the hands of political leaders to fulfil their vested interests.

The Seven Directives given by the Supreme Court

- **Constitute a State Security Commission (SSC) to:**
 - Ensure that the state government does not exercise unwarranted influence or pressure on the police
 - Lay down broad policy guideline and
 - Evaluate the performance of the state police
- Ensure that the DGP is appointed through merit based transparent process and secure a minimum tenure of two years.
- Ensure that other police officers on operational duties (including Superintendents of Police in-charge of a district and Station House Officers) are also provided a minimum tenure of two years.
- **Separate the investigation and law and order functions of the police.**
- Set up a **Police Establishment Board (PEB)** to decide transfers, postings, promotions and other service-related matters of police officers of and below the rank of **Deputy Superintendent of Police**.
- Set up a **Police Complaints Authority (PCA)** at state level to inquire into public complaints against police officers of and above the rank of Deputy Superintendent of Police in cases of serious misconduct.
- Set up a **National Security Commission (NSC)** at the union level to prepare a panel for selection and placement of Chiefs of the **Central Police Organisations (CPO)**.

- **Inadequate Police infrastructure:**
 - **Shortage of Personnel:** There is a huge manpower shortage in the police department. The police-population ratio, currently 192 policemen per lakh population, is less than what is recommended by UN i.e. 222 policemen per lakh population.
 - **Overburdening of work:** A grave challenge for the police force, it not only reduces the **effectiveness and efficiency** of the police personnel but also leads to **psychological distress**.
 - **Inadequate weaponry:** The Comptroller and Auditor General (CAG) in its report also highlighted that the force continues to depend on **obsolete, outdated and unserviceable weapons**. This was attributed to the **slow weapon acquisition process** from ordnance factories.
- **Police-Public Relations:** Police requires the confidence, cooperation and support of the community to prevent crime and disorder.
 - The 2nd ARC has noted that police-public relations is in an unsatisfactory state because people view the police as **corrupt, inefficient, politically partisan and unresponsive**.

Status of implementation of SC directives

- A recent study by the **Commonwealth Human Rights Initiative (CHRI)** has stated that more than a decade after the passage of the **SC directives**, the Centre and all states are still **not in compliance** with them.
- Only 18 states have passed **new Police Acts since 2006**, and while others have issued government notifications, **not a single one** has incorporated the directives in full conformity with the Court's scheme. For instance:
 - As for **compliance on constitution of the SSC**, 27 out of 29 states have constituted an SSC however without fulfilling the various conditions laid down by the directives.
 - 23 states ignored guidelines on **appointment of DGPs**
 - **Separation of investigation and law and order wings** not undertaken by more than 10 states
 - **No state** formed **Police Complaint Authority** in accordance with directive

Conclusion

Police Forces need **operational freedom to carry out their responsibilities professionally** while being held accountable for poor performance or misuse of power. It is time that we freed the police from the clutches of political masters and transform it from 'Ruler's Police' to 'People's Police.'

4.5. INDIA'S TRANSITIONS FROM DEFENCE MARKET TO EXPORT HUB

Why in news?

Recently, in its largest ever single export order, the Ordnance Factory Board (OFB) will supply 50,000 artillery shells used with the Bofors guns to the United Arab Emirates (UAE).

Background

- India is at a crucial juncture of its journey towards self-reliance in defense production which started primarily with imports, then gradually progressed towards licensed production from the 1970s, took substantial form in 1980s and 1990s and now we are talking about indigenous design, development, manufacturing and export capabilities. Major defence items being exported now are personal protective items, offshore patrol vessels, helicopters and radio sets.
- According to the **Stockholm International Peace Research Institute (SIPRI)**, India was the largest importer of military equipment in the world, accounting for 13% of the total global arms import between 2012–16. It is more than both China and Pakistan. The report also points out that India increased its arms imports by 43% between 2007–11 and 2012–16. The biggest contributor to Indian exports has been the US, accounting for nearly Rs 5,000 crore worth of exports, followed by old arms partner Israel and the European Union.

Defence Export Sector

- The **defence exports have increased exponentially** – from Rs 4682 crore in 2017-18 to 10745 in 2018-19 – on the back of recent policy liberalization. With the growing trend of shipments in recent years, exports of defence products will exceed the Rs 35,000 crore target by 2024-25.
- In the current financial year, exports worth Rs 5600 crore have already been processed, with a bulk of these being by the **private sector**. Of the Rs 11,000 crore odd worth of exports last financial year, the private sector contributed to over Rs 9812 crores.
- The government plans to give the **defence sector a \$ 25 billion share in the \$ 1 trillion Indian manufacturing economy** to be reached by 2025.

- The **draft Defence Production Policy, 2018**, has set a target of \$5 billion (RS 35000 Crore) in defence export by 2025.

Defence Exports: An Overview

- **Increasing self-Reliance:** According to a recent statement in Parliament by Minister of State for Defence, in 2015-16 the total capital expenditure for defence procurement was ₹62,341.86 crore. Of this, 62% procurements came from domestic suppliers. Only ₹23,192.22 crore was spent on purchases from foreign vendors.
- **Expanding Budget:** Defence attaches are being given an annual budget of up to \$ 50,000 each for promoting exports of Indian made defence products from both the public and private sector by participating in exhibitions, conducting market studies, organizing seminars and distribution of publicity material.
- **Source Diversification:** A new plan for an **'Open General Export Licence'** to give India further access to the global market will be launched. It will enable Indian companies to export certain equipment to identified nations. The nations that India believes have the maximum potential of purchasing military equipment include Vietnam, Thailand, Bahrain, Bangladesh, Afghanistan, UAE and Malaysia.
- **Product Diversification:** India is looking to encourage private and public sectors to go beyond export of components to platforms where large-scale value addition can be done. According to the ministry data, most of the exports are for components, with parts for small arms topping the chart.
- **Favourable conditions for exports:** Exports growth has been boosted by the low cost of production in India and offset obligations being discharged. The increase in exports comes after recent changes in policy that have made it easier for companies to get official permissions.
- **Introducing Policy reforms in the sector:** Key Policy reforms of the MoD include: **Strategy for Defence Exports**, **Defence Procurement Procedure (DPP 2016)**, **simplified Make-II Procedure**, **Defence Offset Policy**, 'ease of doing business' reforms, **revision in licensing process** (nearly two third of the items have been made licence-free especially on the component side), **new strategic partnership policy** etc. All these moves will have a long-term implication on India's defense manufacturing and export potential.
 - **Opening the Defence Sector:** Since the government liberalised Foreign Direct Investment in the defence sector, nearly Rs 4,000 crore of FDI has come in this sector.
- **Encouraging Private Participation and MSMEs:** In the last four and a half years, the contribution of small and medium scale sector to defense production has grown by 200 percent. The Government had been taking several steps to encourage the private sector, MSMEs in particular, in defence production under the existing production policy and some "notable changes" had been brought in the recent policy.
 - OFB and defence PSUs are planning to **outsource** about 3000 items which will give boost to MSMEs sector.
 - The government had also allowed **suo-motu defence products development** and production.

Open general export licence (military goods, software and technology) provides licence for the export of a wide range of military equipment to low-risk destinations.

- These licences are available in the public domain and must be used by exporters.
- Use of these licences removes the need to apply for an individual export control licence.

Recent Reforms in Defence Sector to boost Exports:

- The provision of **'in-principle' approval** for export incorporated in the Standard Operating Procedure (SOP) so that **domestic players** can explore opportunities in overseas markets.
- Setting up of **'Defence Exports Steering Committee' (DESC)** for taking decisions on proposals of export permissions particularly related to the export of indigenously developed sensitive defense equipment and for **monitoring overall progress** of defense exports.
- Setting up of **Defence Investor Cell**, Society for Indian Defense Start-ups, innovations for defense excellence platform (iDEX), different startup challenges, hackathons etc.
- Decision to establish **defense industrial corridors** in UP and Tamil Nadu.
- **Department of Defence Production** has provided a list of 51 items to the industry lobbies to identify how many of them can be manufactured in India and made available for exports.
- It has also proposed a series of amendments to the **Defence Offset Guidelines** to **open up new avenues** for discharge of offset obligations by foreign vendors. Among the **new avenues** are: investment in specified projects in defence, aerospace and internal security such as testing labs, testing ranges and skill centres.

- Defence investor cell, an online cell created by the government, acts as a guide to get information, understand issues, etc. The MSMEs have particularly benefited from the cell in the last 10 months.

Way Ahead

- We need to invest in research and development, production facilities and quality standards to compete on platforms globally, coupled with strong export compliance programmes and intellectual property right protection measures to ensure defence exports continue to be a long-term success story.
- The Indian manufacturing economy is likely to reach USD 1 trillion in next five years of which it is expected that USD 25 billion would come from the defence sector and further USD 5 billion to be generated by exports.
- The economic, as well as strategic dividends of being a good defense exporter are numerous and for the first time, India seems to make some serious efforts in this direction.
- A continuous policy push, crucial administrative reforms and the responses from the industry give this hope that India can develop an ecosystem which is required for the growth and sustainability of our defense sector.

4.6. DEFENCE FINANCING

Why in news?

Recently, the Union Cabinet on **extended the term of the 15th Finance Commission (FC)**, and added a **new Term of reference (ToR)** which requires the commission to examine if a separate mechanism for funding of defence and internal security ought to be set up.

Background

- **Dwindling defence Budget:** Though the government has allocated Rs 4.31 trillion for **defence spending** (including military pensions of Rs 1.12 trillion), as a proportion of GDP, the allocation is inching steadily lower. In 2014-15, defence allocations, accounted for 17.1 % of the central government's spending, or about 2.28 % of GDP. This year, the Defence Budget will comprise 15.5 % of government expenditure and only 2.04 per cent of GDP.
- Therefore, the latest addition to the 15th FC's ToR calls for the FC to examine the possibility of allocation of adequate, secure and non-lapsable funds for defence and internal security of India.

India's Defence Budget: Concerns and Scope

- **India's challenging security environment:** More recently, the Indian Army has released its **Land Warfare doctrine** which emphasizes a **two-front threat scenario** (China-Pakistan) for which the Indian Army has to be prepared against.
 - As per **CAG's Report**, India do not have **sufficient funds** for emergency necessary purchases, and the army did **not have sufficient war reserves** to fight a high-intensity war for more than ten days.
- **Need to upgrade the armed forces rapidly for modern-day threats:** Modernisation involves the acquisition of new state-of-the-art platforms, technologies and weapon systems to upgrade and augment Defence capabilities. The current defence allocation is far too meagre to make any meaningful progress in this regard.
 - **Modernisation of both Pakistan and China** is going on in full swing, therefore it is important that we remain deterrent as far as these are concerned.
- **Lack of Capital Expenditure/Resource Crunch:** India's defence budget in recent years has been falling, but more significantly, an increasing component of the funds are being allocated towards salaries, pensions and other operating expenses. And given the demographic trends, the nation's

Why is the latest tweak in FC's Terms of References being criticised?

- **Likely protests from the states on apprehensions of States being squeezed out of funding:** Sequestering funds for defence from the Centre's gross tax revenues means a reduction in the overall tax pool that is shared with states. This is likely to be protested by the states, several of whom are arguing for an increase in their share in taxes collected to 50 per cent from the current 42 per cent.
- **Raises questions over the fiscal prudence of the Central Government:** As defence being a Union subject the Centre's request to the FC for greater resources means that it has limited ability to ramp up expenditure on items in the Union list. This is partly because the Centre's expenditure on items in the State and Concurrent Lists has been increasing over the years.

pension bill is becoming larger, even surpassing the salary bill. Thus, only a third (INR 1.03 trillion) is allocated for capital expenditure, which goes into modernization of the military.

- **To achieve the grater indigenisation:** Large number of systemic changes outlined in **Defence Procurement Procedure of 2016** have been aimed to achieve greater indigenisation and, in this view, Army have also identified as many as **25 projects for Make in India**. However, there is **no adequate Budget** to support this. As a result of which, many of these may end up foreclosed.

Way Ahead

In view of India's more pressing socio-economic needs Indian armed forces will have to become smarter in how they manage their dwindling resources. For this:

- **Focussing on strategic defence Policy:** Indian defence policy remains constrained by its inability to fundamentally restructure its armed forces to meet the requirements of modern warfare. Defence reforms are needed urgently then the increasing defence allocation in annual budgets. The post-Pulwama situation made it clear that for all the out-of-the-box thinking and effective execution, Indian armed forces lacked the killer punch, given their lack of upgradation.
- **Need for armed forces to be a leaner, meaner fighting force** within budgetary constraints: **Rationalizing manpower** in the armed forces should be a priority. Recently, the Indian Army initiated a restructuring exercise with the aim of cutting back up to 100,000 soldiers and reducing its revenue budget, which is expected to rise to over 90% of the total in the coming years.
 - The central reform entails replacing division-sized forces with bulked-up brigades called Integrated Battle Groups or IBGs.

International Examples

China's People's Liberation Army (PLA) has already initiated its most wide-ranging and ambitious restructuring since 1949, which includes reducing the size of the PLA by 300,000 soldiers, increasing the size of its navy and air force, and restructuring seven military regions into five theatre commands.

This exercise is intended to enhance the PLA's ability to conduct joint operations on land, at sea, in the air, and in the space and cyber domains.

4.7. INTEGRATED BATTLE GROUPS

Why in News?

The Indian Army plans to raise new integrated battle groups (IBGs) that can mobilize fast and strike hard across the borders with Pakistan and China, as part of its ongoing endeavor to reformat its entire war-fighting machinery and sharpen the "Cold Start" doctrine.

Background

- After the terrorist attack on the Parliament, the **Indian military undertook massive mobilisation** but the Army's formations which were deep inside took weeks to mobilise losing the element of surprise.
- The Army formulated its "**Pro-Active Conventional War Strategy**", colloquially called the **Cold Start doctrine**, after the slow mobilization of its "strike formations" at the border launch pads under **Operation Parakram**, which took almost a month after the terrorist attack on Parliament in December 2001.
- Army Chief had initiated four major studies to undertake overall transformation of the force which included **restructuring of Army Headquarters; force restructuring which includes creation of Integrated Battle Groups (IBG); the cadre**

Problems faced by Indian Army

- **Need effective defence planning-** where the forces do not work in silo-driven approach to defence planning.
- **Need force restructuring-** to achieve a better teeth-to-tail ratio. For this over 12.5 lakh-strong army needs to shed around 1.5 lakh personnel over the next six to seven years.
- **Need to improve combat capabilities-** including capacity to undertake conventional and hybrid warfare such as mandated under the cold start doctrine, hot pursuit activities, anti-terror operations etc.
- **Constrained Capital Budget-** Due to changed nature of warfare where technology, not manpower, is slated to play a bigger role in battles of the future. For the army alone, the ratio of **revenue to capital expenditure is 81: 19 percent**; of which 73 percent of revenue expenditure is for pay and allowance. The implementation of One Rank One Pension has further left little for hardware modernization or capital acquisitions.
- **Need to remove redundant logistic units-** such as the signal regiments have undergone change due to change in electronic warfare. Similarly, the army does not need elements such as military farms.

review of officers; and review of the terms and conditions of Junior Commissioned Officers and Other Ranks.

- The aim is **holistic integration to enhance the operational and functional efficiency, optimize budget expenditure, facilitate force modernisation** and address aspirations.

About Integrated battle groups (IBGs)

- IBGs are **brigade-sized, agile, self-sufficient combat formations**, which can swiftly launch strikes against adversary in case of hostilities.
- Each IBG would be **tailor-made based on Threat, Terrain and Task** and resources will be allotted based on the three Ts.
- They need to be light so they will be **low on logistics**. They will be able to **mobilise within 12-48 hrs based on the location**.
- They are battle formations with heavy firepower that will **combine infantry, armour, artillery, engineers, logistics and support units** to bring together all necessities to fight a war.
- The **first three IBGs to be set up** in the plains of Jammu, Punjab and Rajasthan for the Pakistan border by October-November **along the Pakistan border** which will have elements from various formations of the Western Command.
- The two IBG configurations tested before the decision was finalised included one for **offensive roles (strike corps)** — to carry out hostilities such as cross-border operations — and one for **defensive postures (holding corps)** — to withstand an attack from an enemy side.
 - The former will be more armour (tank)-intensive for thrusts across the border, and the latter will be infantry-centric to hold ground.
- The establishment of these groups **will do away with the older formation of troops**, which included around eight to 10 brigades, each with three to four battalions. Instead, an IBG will have just about six battalions.
- The **IBGs, with about 5,000 troops each**, will be carved out of some of the around 50 divisions (which have about 15,000 soldiers each) under the 14 corps (40,000 to 60,000 troops each) in the 12.3-lakh strong Army.

Structure in Indian Army

- While a **command is the largest static formation of the Army** spread across a defined geography, a corps is the largest mobile formation.
- Typically, **each corps has about three brigades**. Brigades are the smallest battle formations in the Indian Army.
- The **IBGs will be even smaller than brigades**, to make them more flexible and allow for faster mobilisation of troops.
 - The idea is to reorganise them into IBGs which are brigade-sized units but have all the essential elements like infantry, armoured, artillery and air defence embedded together based on the three Ts.

Significance of the move

- **Swift movement of forces:** Indian Army aims to be able to move both troops and equipment swiftly and stealthily into enemy territory at short notice, not leaving the rival side with time to tackle the IBGs.
- **Better integration of forces and self-sufficiency:** These specialised groups will ensure better integration and self-sufficiency as compared to the existing formations. During hostilities, the current system requires a brigade to wait to be augmented by various types of units, such as artillery and logistics, which raises its time to mobilise. This won't be the case with IBGs, which will be self-sufficient and inbuilt with all such units, and hence, easier to mobilise.

Other steps taken

- **Restructuring the Army's officer cadre-** including bringing down the age of key commands, harnessing the higher life expectancy and motivation of the personnel
- **Creation of a new post of Deputy Chief for Military Operations and Strategic Planning-** to deal with military operations, military intelligence, strategic planning and operational logistics.
- **Merger of separate verticals-** of the DCOAS (planning and strategy) and the Master General Ordnance (MGO) into one office of the DCOAS (Capability Development and Sustenance)
- **Setting up new wings for vigilance and human rights issues-** under the command of Major General rank officers. This is in accordance with the Army's commitment to probity and transparency.
- **Setting up new information warfare wing-** to deal with the needs of the future battlefield, hybrid warfare and social media reality. Hybrid warfare is a military strategy that employs political warfare and blends conventional warfare, irregular warfare and cyber warfare with other influencing methods, such as fake news, diplomacy, lawfare and foreign electoral intervention.

- **Lean and mean Army:** These groups are part of the overall move to make the Army lean and mean which will help in better expenditure planning, better synchronization, better preparedness to deal with various issues etc.

4.8. CHIEF OF DEFENCE STAFF

Why in News?

Recently, Prime minister announced the appointment of a Chief of Defence Staff.

Background

- Both Kargil Review committee and a Group of Ministers in 2001, recommended setting up a Chief of Defence Staff (CDS), who would be five-star officer, to improve synergy in the three-armed services.
 - However, due to lack of political consensus and resistance from the Indian Air Force (IAF) and the bureaucracy, the post of chief of defence was not created.
 - In preparation for the post, the government created the Integrated Defence Staff (IDS) in late 2002, which was to eventually serve as the CDS's Secretariat.
- In 2012, Naresh Chandra Committee watered down the proposal to appoint a CDS, in view of the resistance from within the defence structure, and suggested a permanent Chairman of the Chiefs of Staff Committee (CoSC).
- The CDS is also one of the recommendations made by the Lt. General D.B. Shekatkar (retd.) Committee which submitted its report in December 2016.

Chiefs of Staff Committee (CoSC)

- It consists of Army, Navy and Air Force chiefs.
- It is headed by the senior-most of the three chiefs in a rotation till the senior-most retires.
- It is a platform where the three service chiefs discuss important military issues.
- CoSC arrangement is seen as unsatisfactory, and its Chairman as a figurehead.

Chief of defence staff

- Although exact power, role and responsibility is not announced yet, but it is envisaged that the CDS would be a combined head of the Indian Army, the Air Force and the Indian Navy and will act as the single-point military advisor of the Defence Minister of India.
- The CDS will be the representative of the forces in security-related committees, such as Defence Planning Committee or the Strategic Policy Group.
- All the responsibilities handled by the Chief of Integrated Defence Staff (CISC), including the Defence Intelligence Agency and joint operations, training and rescue and relief, will be handled by the CDS.
- All major countries, especially the nuclear weapon states, have a CDS.

Importance of Chief of Defence Staff

- **Single-point Military advisor:** It is envisaged as a single-point military adviser to the government. The institutionalized direct interface of the political leadership with the military, through the CDS will correct the anomaly of civic-military.
- **Better planning and strategies:** From an operational perspective, the concept of military conflict today extends beyond land, air and sea, into the domains of space, cyber, electronic and information. Effective defence preparedness requires a 'jointness' of armed forces. The CDS meant to develop multi-domain military strategies, strengthening tri-service synergies and enabling perspective planning.
- **Better resource utilisation:** It could promote an integrated approach to inter-service prioritisation and resource allocation as well as a pooling of common structures to avoid unnecessary redundancies.
- **Better defence acquisition:** The CDS can contribute to rational defence acquisition decisions, preventing redundancy of capacities among the services and making best use of available financial resources.
- **Development of theatre command:** The appointment of a CDS may lead to the development of comprehensive and holistic theatre commands in the future.

Reasons for resistance against CDS

- Political parties were against the idea of concentrating too much military power in the CDS's post.
- A five-star ranking general would bypass the civilian bureaucracy in defence decision-making.
- It is believed that the IAF and Navy service thinks the move will establish the Army's domination and that it may be reduced to a supporting role.

Way forward

- CDS should be included in the decision-making process for overall defence budget allocation for better planning and defence acquisition
- The involvement of the CDS in the operational process can start only after Integrated Commands are created. The government should initiate the process to establish integrated theatre command.
- If carried out objectively, undistorted by turf considerations, this long-awaited reform would soothe frictions in civil-military relations and bring greater efficiency, transparency and accountability into decision-making on defence matters.

ALL INDIA TEST SERIES

Get the Benefit of Innovative Assessment System from the leader in the Test Series Program

PRELIMS

- **General Studies** (हिन्दी माध्यम में भी उपलब्ध)
- **CSAT** (हिन्दी माध्यम में भी उपलब्ध)

- VISION IAS Post Test Analysis™
- Flexible Timings
- ONLINE Student Account to write tests and Performance Analysis
- All India Ranking
- Expert support - Email/ Telephonic Interaction
- Monthly current affairs Analysis

for **PRELIMS 2020** Starting from **1st Sept**

MAINS

- **General Studies** (हिन्दी माध्यम में भी उपलब्ध)
- **Essay** (हिन्दी माध्यम में भी उपलब्ध)
- **Geography • Sociology • Anthropology**

for **MAINS 2019** Starting from **28th July**

for **MAINS 2020** Starting from **1st Sept**

Scan the QR CODE to download **VISION IAS** app



5. ENVIRONMENT

5.1. CLIMATE CHANGE AND LAND

Why in news?

Recently, the Intergovernmental Panel on Climate Change (IPCC) released its Special Report on **Climate Change and Land (SRCL)**.

Details

- This report presents the most recent evidence on how the different uses of land like forests, agriculture, urbanisation are affecting and getting affected by climate change.
 - The report’s full name is Climate Change and Land, an IPCC special report on **climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems**.
 - This is the **first time** that the IPCC has focused its attention solely on the **land sector**.
 - It is part of a **series of special reports**. The aim of these special reports is to provide “**an assessment on a specific issue**”. They complement the main “**assessment reports**” that the IPCC publishes every five or six years.
 - The second special report on **oceans and the cryosphere** is due in September this year. The IPCC also published a special report on 1.5C of warming in October 2018.
 - These reports were sought by governments to get a **clearer picture of specific aspects** of climate change.
- Usually, the discussion on climate change has given more thrust to curbing vehicular and industrial emissions. The IPCC report warns that clean energy, clean transport and reduction emissions alone will not cut global emissions enough to avoid dangerous warming beyond 2 degrees Celsius.

Focus Area	Observations
Climate Change and Land	
How does climate change affect land degradation?	<p>Negative Impacts</p> <ul style="list-style-type: none"> • Climate change can affect the land through both gradual changes in temperature and rainfall patterns, as well as changes in the “distribution and intensity of extreme events”. • Three main processes where climate change impact land- <ul style="list-style-type: none"> ○ Coastal erosion as affected by sea level rise and increased storm frequency/intensity. ○ Permafrost thawing responding to warming. ○ Increased wildfires responding to warming and altered precipitation regimes. • Climate Change is also influencing species invasions and the degradation that they cause. • When rainfall patterns change, it is expected to drive changes in vegetation cover and composition. <ul style="list-style-type: none"> ○ For example, in Central India, there has been a threefold increase in widespread extreme rain events during 1950-2015, which has influenced several land degradation processes, not least soil erosion. • Increased Heat waves threaten the already drought-prone areas. Extreme heat events can reduce photosynthesis in trees, restrict growth rates of leaves and reduce growth of the whole tree. • Global warming will exacerbate heat stress thereby amplifying deficits in soil moisture <p>Positive Impacts</p> <ul style="list-style-type: none"> • CO₂ fertilisation- where higher levels of CO₂ in the atmosphere bolsters plant growth and land improvement. • Longer growing seasons in high latitudes due to warmer seasons of spring and autumn.
How does the land contribute to climate change?	<p>Negative Impacts</p> <ul style="list-style-type: none"> • Around 23% of global greenhouse gas emissions were released from 2007-16. • Source of CO₂ emissions- Deforestation and other types of vegetation loss. • Source of Methane- Livestock production, Rice farming and other smaller sources like animal manure, waste burning and peat lands in the northern hemisphere. • Source of Nitrous Oxide- Nearly two-thirds emission come from agriculture and most of it come from the application of nitrogen fertiliser. <p>Positive Impacts</p> <ul style="list-style-type: none"> • From 2008-17, the land absorbed 30% of the world’s greenhouse gas emissions. It happens when- <ul style="list-style-type: none"> ○ Trees and other types of vegetation carry out photosynthesis. ○ Soil gains carbon through plant material, crop residues and animal manure.

	<ul style="list-style-type: none"> ○ The ability of the land to absorb greenhouse gases is currently being aided by “increasing atmospheric CO₂ concentration and a prolonged growing season in cool environments”.
Desertification	<ul style="list-style-type: none"> • Drylands are particularly vulnerable to land degradation because of scarce and variable rainfall as well as poor soil fertility. • The people residing these drylands are vulnerable because their livelihoods are predominantly dependent on agriculture; one of the sectors most susceptible to climate change. • Global warming is projected to reduce crop yields across dryland areas. • Thus it will provide an added incentive for people in these areas to migrate to other places. This can increase the costs of labour-intensive SLM [sustainable land management] practices.
Other Impacts	<ul style="list-style-type: none"> • On the livelihoods of people around the world, particularly those living in vulnerable and poverty-stricken regions. • In many of the poorest parts of the world, poverty, land degradation and vulnerability to extreme events linked to climate change all go hand-in-hand. • There is clear link between climate-related land degradation, migration and conflict. E.g. conflicts in both Rwanda and Sudan.
Climate Change and Food Security	
How can climate change affect food security?	<ul style="list-style-type: none"> • Climate change is putting the world’s food supply at risk. • With more extreme weather events, stable food production will increasingly be imperiled, threatening the poorest populations first. • There is evidence that pests and diseases are boosted due to climate change. • Desertification could affect rangelands where cattle are reared. • Crop yields are already falling in some areas, deserts are spreading and plant diversity is waning. • Cereal prices could increase by 1-29% by 2050 as a result of climate change • Reduction in nutritional quality of staple crops- due to ncreased atmospheric concentrations of carbon dioxide (CO₂). <ul style="list-style-type: none"> ○ Wheat grown at CO₂ levels of 546-586 parts per million (ppm) has 5.9-12.7 per cent less protein, 3.7-6.5 per cent less zinc, and 5.2-7.5 per cent less iron. Similarly the report points out for rice varieties. ○ This could put about 600 million people, living in low-income countries, especially in Asia, at risk of low nutrition.
How Food System is aiding Climate Change	<ul style="list-style-type: none"> • The push to use more of the world’s land to produce crops and lumber is contributing to climate change by eliminating natural wetlands and reducing forests that capture greenhouse gases. • The current farming practices, of both crop and livestock, are unsustainable and are responsible for a significant amount of green house gas emissions (GHG) and is also worsening climate change. • The global food system is responsible for 21 to 37 per cent of the world’s GHG emissions. This includes agriculture (10-12 per cent), land use (8-10 per cent), and storage, transport and processing (5-10 per cent). • Food wastage (from harvesting, processing, and storage) also contribute 8-10 per cent of GHG emissions. The global food loss and waste has increased from around 540 metric tonne in 1961 to 1630 Mt in 2011. • Rapid agricultural expansion has led to destruction of forests, wetlands and grasslands and other ecosystems. Soil erosion from agricultural fields, the report estimates, is 10 to 100 times higher than the soil formation rate.
How could ‘negative emissions’ affect land, food and wildlife?	
Negative emissions are a group of methods that aim to remove CO ₂ from the atmosphere and store it in the land or ocean.	<ul style="list-style-type: none"> • They range from the natural-sounding – planting trees, for example – to the technologically advanced, such as using machines to suck CO₂ from the air (known as direct air capture, or DAC) • Many of the modelled pathways for limiting global warming to 1.5C rely heavily on a technique called “bioenergy with carbon capture and storage” (BECCS). <ul style="list-style-type: none"> ○ This technique involves growing crops, using them to produce energy and then capturing the resulting CO₂ emissions before storing them in the ground or sea. ○ If BECCS is pursued at the level “necessary to remove CO₂ from the atmosphere at the scale of several billion tonnes of CO₂ per year”
Sustainable development, Gender and the role of Indigenous Communities	
<ul style="list-style-type: none"> • In rural areas, women face higher vulnerability to climate change and its potential land-based solutions than men. <ul style="list-style-type: none"> ○ E.g. the need to adapt to climate change on farms in Australia and Canada falls disproportionately on women’s workloads. Whereas in Ethiopia, research found that male-headed households had access to a wider set of adaptation measures than female-headed households 	

- The indigenous knowledge can play a key role in understanding the impacts of climate change on land in regions without long-term instrumental data records.

Summary of Recommendations for Policy Makers

- Many activities for combating desertification can contribute to climate change adaptation with mitigation co-benefits, as well as to halting biodiversity loss with sustainable development co-benefits to society.
- **Sustainable land management**, including sustainable forest management, can prevent and reduce land degradation, maintain land productivity, and sometimes reverse the adverse impacts of climate change on land degradation.
- Policies that operate across the food system, including those that reduce food loss and waste and influence dietary choices, enable more sustainable land-use management, enhanced food security and low emissions trajectories (high confidence). Such policies can contribute to climate change adaptation and mitigation, reduce land degradation, desertification and poverty as well as improve public health.
- Acknowledging co-benefits and trade-offs when designing land and food policies can overcome barriers to implementation.
- Delaying climate mitigation and adaptation responses across sectors would lead to increasingly negative impacts on land and reduce the prospect of sustainable development.

5.2. JAL SHAKTI ABHIYAN

Why in news?

Recently, the Union Government launched the **Jal Shakti Abhiyan**, a campaign for water conservation and water security.

Background

- Given the **increasing water stress** in the country, the government is aiming to create a **jan-andolan** along the lines of the Swachh Bharat Mission, to save water and secure the future.
 - The government also aims at providing drinking water to every household on priority and in a sustainable manner.
- **Jal Shakti Abhiyan** will run through **citizen participation** in two phases-
 - **Phase I:** 1st July to 15th September 2019 (all States)
 - **Phase II:** 1st October to 30th November 2019 (States with retreating monsoon)
- The **focus** of the campaign will be on **water stressed districts and blocks** with various focus activities as shown in the figure.
- There is **no additional funding** or specific targets for the campaign to achieve.

Some facts on the status of water in India

- As per NITI Aayog report, nearly 600 million Indians face **"high to extreme water stress"** and 75% households do not have drinking water on their premises.
- India's **annual per capita availability** of water fell from 1,820 cubic meters in 2001 to 1,545 cubic meters in 2011, which may further fall to 1,341 cubic meters in 2025.
 - This is against the rising water demand in the country, which is likely to double by 2030.
- Some reports have also indicated that 21 cities, including New Delhi, Bengaluru, Chennai, and Hyderabad, are set to run out of groundwater by 2020, affecting an estimated 100 million people.
- India uses the largest amount of groundwater.
 - India is also the third largest exporter of groundwater.
- 70% of drinking water is contaminated.

Plan of Implementation under the Jal Shakti Abhiyan

- It will be a **collaborative effort** of various Ministries of the Government of India and State Governments, being coordinated by the **Department of Drinking Water and Sanitation**.
- **Teams of officers** from the central government will visit and work with district administration in water stressed blocks in 256 districts, to ensure important water conservation interventions
 - The Centre issued an **18-point to-do list** to all officers deputed as Central Nodal Officers/Central Prabharis.
 - A **WhatsApp group** is to be created immediately involving all central and district teams for a 'seamless interaction'.
- The conservation efforts will be supplemented by initiatives like developing **Block and District Water Conservation Plans** and '**Krishi Vigyan Kendra Melas**' to promote efficient water use for irrigation and better crop choices.
- A **large-scale communications campaign** alongside the JSA involving mass mobilisation of different groups including school students, swachhagrahis, Self Help Groups, Panchayati Raj Institution members, among various others.

- In **urban areas**, plans with time-bound targets will be developed for wastewater reuse for industrial and agricultural purposes.
 - Plans will be developed for at least one urban water body for groundwater recharge in the block or the city.
- Scientists and IITs will also be mobilised at the national level to support the teams.
- **3D Village Contour Maps** may be created and made accessible for efficient planning of interventions

Convergence with Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)

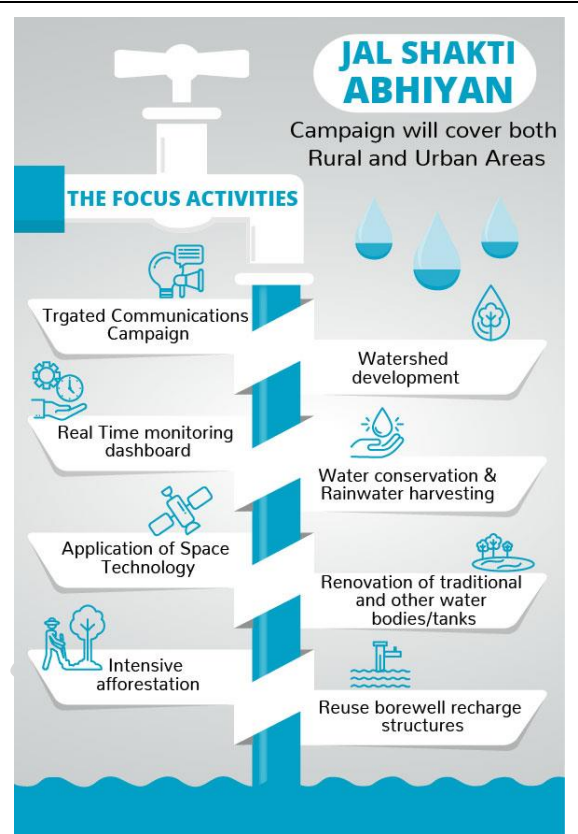
- MGNREGA will drive the JSA in the rural sector, pumping in Rs 15,000 crore in the first phase of the campaign between July and September.
- A detailed plan of **over 200,000 works** to be taken up for water conservation in nearly 1,100 water-stressed districts has been drawn.
 - Under MGNREGA, rules mandates that 60 per cent of its expenditure is on **national resource management** and accordingly it has a target for construction of farm ponds, rain-water harvesting, re-use of water, watershed development, and intensive forestation for water conservation.
 - A team of engineers will also head to the villages to study the quality of such assets created under the MGNREGA and suggest ways to make structures technically sound

- The villages in all the water-stressed areas would also hold a **special pani panchayat** to identify and find solutions to water problems.

Progress of the Campaign

Recently, a review of the JSA was taken up by the Cabinet Secretary, which found that-

- The movement involved 1.54 lakh water conservation and rainwater harvesting measures, 1.23 lakh watershed development projects, over 65,000 reuse and recharge structures and rejuvenation of 20,000 traditional water bodies.
- It saw an estimated 2.64 crore people participating in it.
- It has led to an increase in groundwater level, surface water storage capacity, soil moisture in farmlands and increased plant cover.
 - About 4.25 crore saplings were planted as a part of the efforts.



Issues with Water Conservation in India

- **Lack of awareness among citizens-** which has led to overexploitation of water resources without paying much heed to the necessity of water conservation.
- **Poor government policies-** Largely, governments have been hesitant to rationalize **water fee** on the residents. Further, in some states water freebies are rolled out. There is also an hesitation towards the rationalisation of power pricing for agriculture.
- **Increasing water pollution-** Release of chemicals and effluents into rivers, streams and ponds, the case in point being the

Other Steps taken by the government towards water conservation

- The Union Government has setup a **Jal Shakti Ministry**, a dedicated ministry overseeing various issues related to water.
 - It will work with states to ensure that every rural house gets water by 2024 under the **Jal Jeevan Mission**.
 - It will also overlook the flagship **Nal se Jal** scheme that aims to provide piped water supply for every household.
- **Composite Water Index** by NITI Aayog evaluates states on their water utilisation potential.
- The Central Ground Water Authority (CGWA) notified **revised guidelines for ground water (GW) extraction** to be effective from 1st June 2019.
- **National Water Informatics Centre** setup as a repository of nationwide water resources data and provide latest and reliable water data through web-based India **Water Resources Information System** (India-WRIS) on a GIS platform in Public Domain.

Related news

- **Recently, the Meghalaya became the first state to approve a draft water policy.** The state has brought the **Integrated State Water Policy of Meghalaya**, which intends to achieve sustainable development, management and use of Meghalaya's water resources with community participation.

Ganga River, which the government has not been able to clean.

- **Unscientific Agriculture- Indian agriculture** accounts for about 90% of the country's annual domestic water consumption. However, excessive cultivation of **water-intensive crops** such as rice, wheat and sugar cane has exacerbated the water scarcity. E.g. As much as 70% of water delivered through India's limited irrigation infrastructure goes to water sugar cane fields in some states. It has resulted in depletion of groundwater at the rate of 10-25 mm per year between 2002 and 2016.
- **Lack of water reuse-** there is a **lack of wastewater treatment facilities** to treat the wastewater of a growing population.

Steps, which should be taken

- Grassroots water conservation efforts must be used in other parts, such as, **Dong Bundh System** in the North East, which ensures availability of drinking and irrigation water.
- To cause a shift in behaviour, local governments need to offer incentives, such as **higher crop prices** for farmers **choosing crops wisely**, and demonstrating water conservation in farming.
 - The government may also give monetary rewards to farmers for saving water and power for irrigation.
- Governments also need to start **charging commercial rates for electricity usage** by big farmers, who can afford to pay, making it more expensive as usage increases, so there is motive for water conservation.
- Water treatment and reuse practices should be adopted from the countries like Israel and Singapore.
 - Israel converts 90% of its sewage into water, which is then diverted for irrigation.
- Need to educate people at village-level about the importance of saving water, showing them effective ways and techniques and how they can play a leading role in taking the initiatives forward.
- Government can outsource infrastructure maintenance and upkeep to private parties whose fees will be linked to service standards and consumer rankings, to overcome the poor water management by Municipalities.
- Households that use more water than the individual cap, should be asked to pay at least four times more for the excess water. Those who use less than the allocated amount should be allowed to sell their unused water rights back to the municipality, or save it for occasions when they may need the extra water, ranging from holiday guests to special occasions or emergencies.
- Government could offer **green tax offsets** to large residential blocks, schools, hospitals, hotels and commercial complexes that reduce water usage both by innovating and by recycling waste water for gardens, toilets and other facilities needing non-potable water.

Successful Case Studies on Water Conservation

- **Community Managed Water Supply Programme (Gujarat):** It aims to supply the village community with adequate, regular and safe water through household-level tap water connectivity, including households of people from backward communities.
- **Madhya Pradesh's 'Bhagirath Krishak Abhiyan':** It has resulted in the construction of thousands of farm ponds to boost irrigation potential, through the efforts of local farmers, government officers, and financial institutions such as NABARD.

5.3. FLOOD

Why in news?

Different parts in many states like Maharashtra, Karnataka, Andhra Pradesh, Kerala, Chattisgarh have been reeling under floods.

Reasons of recent floods in these states-

- **Climate Change-** Rise in average global temperatures have led to a worrying trend of no rain for long periods and then a

NDMA Guidelines on Management of Flood

- Shifting the focus to preparedness by implementing Flood Management Plans.
- Ensuring regular monitoring of the effectiveness and sustainability of various structures and taking appropriate measures for their restoration and strengthening.
- Continuous modernization of flood forecasting, early warning and decision support systems.
- Ensuring the incorporation of flood resistant features in the design and construction of new structures in the flood prone areas.
- Drawing up time-bound plans for the flood proofing of strategic and public utility structures in flood prone areas.
- Improving the awareness and preparedness of all stakeholders in the flood prone areas.
- Introducing appropriate capacity development interventions for effective Flood Management (including education, training, capacity building, research and development, and documentation.)
- Improving the compliance regime through appropriate

sudden bout of excessive rainfall. 40 million hectares out of a geographical area of 3290 lakh hectares is prone to floods in country.

- **Incessant rainfall:** in all these regions.
- **Overflowing Rivers-** e.g. Periyar, Manimala, Muvattupuzha, Chaliyar and Pamba in Kerala.
- **Deep Depression-** in the Bay of Bengal, which crossed the Odisha coast causing heavy rainfall.
- **Backwater flooding-** leading to Krishna river flowing 4 to 5 ft higher than normal in Karnataka.
- **Dam Mismanagement:** There was an instant release of water from dam due to heavy rain, as dam reservoirs were not emptied before the onset of rain, flooding the nearby regions at a much faster rate than expected.
- **Encroachment of river basin-** several habitations are situated close to the water bodies and are almost at the river level.
- **Issues of Coordination-** e.g. Maharashtra and Karnataka have traded charges over the management of floodwater flowing across the two States' borders.

Impact of floods

- **Loss of human and cattle lives** – e.g. 12 people lost their lives a boat capsized in Sangli, Maharashtra.
- **Landslips/ Landfalls-** are triggered due to heavy rains which create further damage to life and property.
- **Displacement and other losses-**
 - Wide- spread damage to crops.
 - Large parts of these states remain inundated.
 - Schools, Hospitals remain shut
 - Electricity and telephone lines snapped
 - Collapse of road links and train services. Kochi Airport has been shut due to this.
- **Loss of Soil Fertility:** Flood cause heavy damages to topsoil, which takes time to be restored to its natural state.
- **Post-disaster effects-** like public health issues due to sanitation issues, post-traumatic stress disorder etc.

Dam Safety Bill, 2019

- The Bill applies to **all specified dams** in the country.
- The **National Dam Safety Authority** will be headed by an officer, not below the rank of an Additional Secretary, who will be appointed by the central government.
- The constitution of **State Committees on Dam Safety** by state governments.
- **Owners of specified dams** are required to provide a dam safety unit in each dam.
- The bill provides for **offences and penalties** against violations of its provisions.

Steps taken by various governments-

- **Deployment of forces-** including from NDRF (National Disaster Response Force), SDRF, Army and Navy, apart from State emergency services.
- **Draft River Regulation Zone Rules-** formulated with the help of independent experts, were circulated by the ministry of environment, forests, and climate change (MoEFCC) for demarcation of active floodplains, high flood lines, and high to low impact zones, and then limiting development within these zones.
- **Enforcement of Coastal Regulation Zone Regulations**

Way Forward

- **Short term preventive measures** aiming to build capacity for mitigation of disaster can be adopted:
 - **Structural measures**
 - ✓ Building embankments, floodwalls, flood levees.
 - ✓ Natural Detention basin.
 - ✓ Channel improvement through dredging and other channel deepening measures.
 - ✓ Diversion of floodwater through storm drainage system.
 - ✓ Catchment area afforestation especially in the upstream areas of river more prone to soil erosion and landslides.
 - **Non-structural measures**
 - ✓ Flood forecasting and warning system - Nearly 60% telemetry stations are non-operational, according to CAG report. CWC should modernize it especially in the North-eastern Region using sensor based instruments, satellite monitoring etc.
 - ✓ Flood hazard zoning – This will help to identify the flood hazard prone zones and help to prioritize flood control process. Data should include experiences of NDRF & studies by CWC

- ✓ Regulation of reservoirs
- ✓ Strategic environment assessment of development activities in flood prone areas, as followed in several countries
- ✓ Strengthening planning authorities like the Brahmaputra Board and flood control departments by staffing them with scientists from various disciplines.
- **Building resilience through following measure**
 - Creation of crisis-proof health infrastructure and stockpiling dry rations and medicines
 - Sanitation through elevated toilets, ecosanitation units, elevated dugwells or tubewells with iron filter, in the flood-prone areas of North Bihar and Northeast.
 - Efficiently utilizing disaster relief funds with states as Center asks them to set off the unutilised portion when making fresh claims during relief
 - Increasing coordination and adequate training at the ground level to implement NDMP (national disaster management plan), which covers all aspects of disaster management. [2]
- **Speedy relief and rehabilitation Post-disaster such as –**
 - Actions on the ground: short-term housing, food, safe water
 - Access to health care and counselling services to enable coping with disaster mentally
 - Providing adequate number of boats to enhance access to developmental activities

5.3.1. URBAN FLOODING

Why in news?

Recently, torrential rains have brought Mumbai to a grinding halt, reigniting the discussion on Urban Flooding in India.

Background

- **Urban flooding** is caused when there is intense and/or prolonged rainfall, which overwhelms the capacity of the drainage system.
 - It is significantly different from rural flooding as urbanisation leads to developed catchments which increases the flood peaks from 1.8 to 8 times and flood volumes by up to 6 times. Consequently, flooding occurs very quickly due to faster flow times, sometimes in a matter of minutes.
- There has been an increasing trend of urban flood disasters in India in recent years whereby major cities like Mumbai, Chennai have been severely affected.
- Global climate change is resulting in changed weather patterns and increased episodes of high intensity rainfall events occurring in shorter periods of time, which has slated as the major reason behind this increasing frequency of urban flooding.

Reasons behind Urban flooding

- **Environmental Factors**
 - Heavy and unexpected rainfall. e.g. Srinagar floods.
 - Synchronization of runoffs from various parts of watershed.
 - Bursting of glacial lakes. E.g. Chorabari Glacier in Uttarakhand.
 - Small-scale storms

NDMA Guidelines on Urban Flooding

- Create a **National Hydro-meteorological Network**- for providing early warning in all urban centres to effectively deal with the problem of urban flooding
- Use of **Doppler Weather Radars** to be expanded to cover all urban areas in the country
- An **inventory of the existing storm water drainage system** to be prepared. The inventory will be both watershed based and ward based.
- **Catchment** to be the basis for planning and designing the storm water drainage systems in all ULBs
- Every building in an urban area must have **rainwater harvesting** as an integral component of the building utility.
- **Low-lying areas** in cities have to be reserved for parks and other low-impact human activities.
- **Encroachments** on the drain should attract penal action.
- **Pre-monsoon desilting** of all major drains to be completed by March 31 each year.
- **Urban Flooding** has to be dealt as a **separate disaster**, de-linking it from riverine floods, which affect the rural areas.
- Suitable interventions in the **drainage system** like traps, trash racks can be provided to reduce the amount of solid waste going into the storm sewers.
- **Inlets** to be provided on the roads to drain water to the roadside drains and these has to be designed based on current national and international practices.
- Concept of **Rain Gardens** to be incorporated in planning for public parks and on-site storm water management for larger colonies and sites those are to be developed.
- **Flood hazard assessments** should be done on the basis of projected future scenarios of intensities and duration of rainfall and land use changes.

- **Anthropogenic Factors-**
 - **Poor Urban Planning-** the reluctance of states to enact zoning has led to increase in encroachment on floodplains, sometimes authorised and duly approved by planning authorities
 - ✓ **Encroachment of floodplains-** e.g. Much of the Mumbai's exurban growth has been in townships along the River Ulhas, with little regard for the integrity of the river system.
 - ✓ **Maharashtra deleted its River Regulation Zone policy in 2015** – a decision now being protested by residents near the Ulhas River and decided to build a new airport in Navi Mumbai on low-lying land.
 - ✓ **Inefficient management of religious gathering** like Kumbh Mela in Nasik. This results in unwanted concretisation of rivers, which narrows down their channels.
 - ✓ **Surface sealing** due to urbanization (which increases run-off)
 - **Deforestation-** A March 2015 study prepared for the Mumbai Metropolitan Region Development Authority (MMRDA) reported that forest cover in the MMR had fallen from about a third of the total area in 1987 to 21% in 2015.
 - **Urban Heat Island Effect-** Due to which rainfall in and around urban areas has increased.
 - **Inadequate solid waste management-** and its segregation at source. This results in blocking of drains.
 - **Slow implementation of Flood Management Projects** like Narmada River Project which took 56 years to complete.

Way Forward

- Integrated approach to sustainable urban planning by empowering Urban Local Bodies in decision making and planning of flood mitigation infrastructure. E.g. MMRDA's VCF to tap finances. Maharashtra will constitute a task force comprising local and global experts to study impact of climate change its cities
- Robust anti-encroachment laws.
- Sustainable slum management.
- Efficient Solid waste management and sewerage lines following Israel and Singapore modal and in line with SWM rules 2016.
- Flood water-draining network, in line with JNNURM vision.
- **Urban planning** – It involves following
 - Building the storm drains and maintaining other drainage system.
 - **Reviewing the protocol followed by State governments** in controlling flows from dams and reservoirs. For ex-much of the waters in Rajasthan this year or Chennai in 2015 flowed from a dam that was opened to relieve pressure
 - **Inter-state cooperation or dialogue** - as opening up of dams in upstream areas such as Arunachal Pradesh become a problem for Assam, since the past seven years
 - **Prevent encroachment** on the river basin & natural lakes to ensure natural flow of the water.

5.4. INTERLINKING OF RIVERS

Why in news?

Recently, the Union Government has approved the **Kosi-Mechi river-interlinking project**.

More on the Kosi-Mechi River Interlinking Project

- It is the country's second major river interlinking project **after Ken-Betwa of Madhya Pradesh**.
- This interlinking project envisages diversion of part of surplus water of Kosi river through existing Hanuman Nagar barrage to the Mahananda basin.
- Mechi is an important tributary of Mahananda river. Its basin however remains mostly deficient in providing adequate water for irrigation.
- It is a **green project** as it involves no displacement of population and there is no acquisition of any forestland.
 - No National Park, Wildlife Sanctuary, Eco-sensitive areas, etc. are present within 10 km radius of the project.

Arguments in favour of Interlinking of Project

- **Judicious Use of Water Resources-** to ensure greater equity in the distribution of water by enhancing its availability in drought-prone and rainfed areas.
 - Will prevent flow of fresh river water into sea. For example, the **Godavari-Krishna project** will lift Godavari waters that now flow into the sea.
- **Address the issue of Water Stress-** as per Niti Aayog, India is facing its '**worst water crisis**' in history and that demand for potable water will outstrip supply by 2030 if steps are not taken.
- **Can improve the irrigation coverage-** such as this project will provide irrigation to large command areas spread across the districts in north Bihar.
 - The NPP is envisaged to give the benefits of 25 million ha of irrigation from surface waters and 10 million ha by increased use of ground waters, raising the ultimate irrigation potential from 140 million ha to 175 million ha.
 - It also targets to decrease farmers' dependency on uncertain monsoon rains and bringing millions of hectares of cultivatable land under irrigation.
 - It will also aid the achievement of **second green revolution**.
- **Power generation-** It is also seen to lead to the generation of 34 million KW of power.
- **Disaster Management-** as it can help in swift diversion of waters in both floods and droughts.

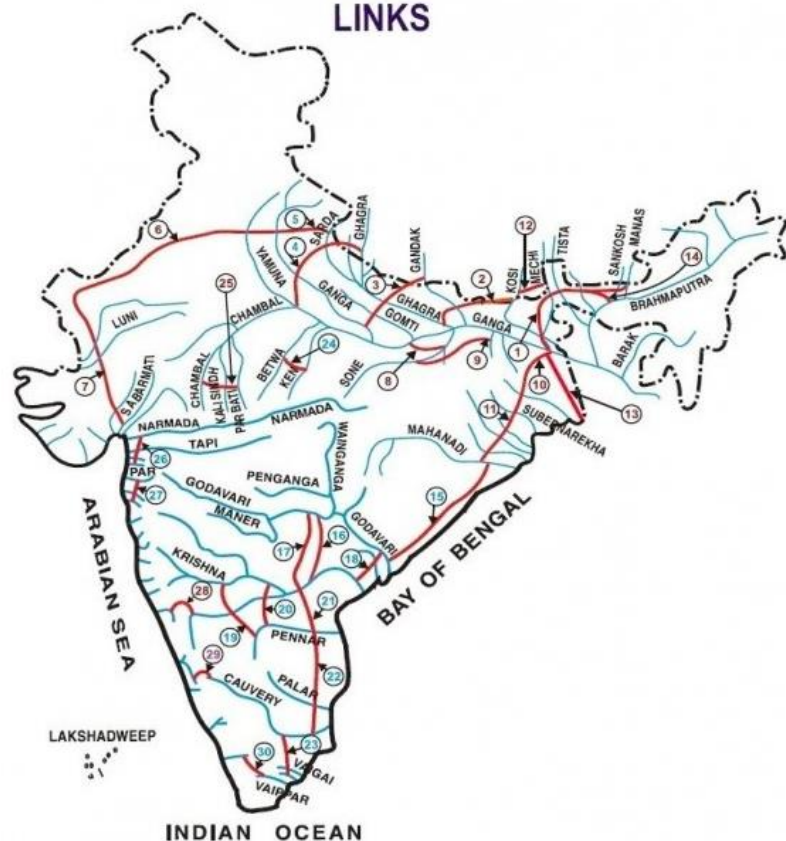
About National River Linking Project (NRLP)

- The **core idea behind interlinking** is transfer of '**surplus**' water from one basin to another '**deficit**' basin.
- The NRLP is being managed by India's **National Water Development Agency (NWDA)**, under the Union Ministry of Water Resources.
- The Inter-link project has been split into three parts:
 - A **northern** Himalayan rivers inter-link component
 - A **southern** Peninsular component
 - An **intrastate** rivers linking component
- Under the **National Perspective Plan (NPP)** prepared by Ministry of Water Resources, NWDA has already identified **14 links** under Himalayan Rivers Component and **16 links** under Peninsular Rivers Component for inter basin transfer of water based on field surveys and investigation and detailed studies.
- The government has identified **four priority links** for the preparation of detailed project reports (DPR) under the Peninsular Component:
 - the **Ken-Betwa link** project (UP and M.P.),
 - the **Damanganga-Pinjal link** project (Maharashtra and Gujarat),
 - the **Par-Tapi-Narmada link** project (Maharashtra and Gujarat)
 - the **Godavari-Cauvery link** project (Andhra Pradesh and Tamil Nadu).

Arguments against the Interlinking of Project

- **Artificial change of course-** Rivers living eco-systems that have evolved over hundreds of thousands of years. Shifting their course like roads and power lines may lead to unintended consequences.
 - Only by maintaining "**minimum flow requirements**" the river ecosystem can be conserved.
- **Bypass the crucial dryland areas-** There are concerns that the intended projects might bypass the core dryland areas of central and western India, which are located on elevations of 300 to 1000 metres above mean sea level.

PROPOSED INTER BASIN WATER TRANSFER LINKS



- **Impact on Environment-** including large-scale submergence of forests and destruction of habitat for wildlife as happened in the Ken-Betwa link.
- **Impact on rivers-** water discharge in 23 out of 29 rivers will reduce considerably, they say. E.g. The Ganga will see a 24% decrease in flow. Its tributaries Gandak (-68%) and Ghaghara (-55%) will be the worst affected.
- **Lead to shoreline loss-** as per a study, it will lead significantly reduce the sediments deposited by the rivers in deltas. Fertile deltas will be under threat, with coastal erosion expected to threaten the land and livelihoods of local economies that support 160 million people.
- **Impact on Monsoons-** The continuous flow of fresh river water into the sea is what helps maintain a low salinity layer of water with low density in the upper layers of the Bay of Bengal. This is a reason for the maintenance of high sea-surface temperatures (greater than 28 degrees C), which create low-pressure areas and intensify monsoon activity.
- **Increased vulnerability-** Rare ecosystems and vital agricultural areas would become more vulnerable to storm surges, river flooding, and heightened salinity.
- **Federal contentions-** as water is a state subject. States that have surplus water are not ready to give it to other states and there is a huge logjam, which is cropping up time and again because of this.

Conclusion

The future projects should be on the lines of this **green interlinking project** where there is minimal adverse impacts as discussed above.

5.5. NATIONAL RESOURCE EFFICIENCY POLICY

Why in news?

Recently, the Ministry of Environment, Forest and Climate Change placed the **Draft National Resource Efficiency Policy (NREP) 2019** in public domain.

Background

- As one of the fastest growing economies in the world, India has increased its material consumption to six times, from 1.18 billion tonnes (BT) in 1970 to 7 BT in 2015.
 - It is expected to further increase owing to increasing population, rapid urbanization and growing aspirations.
 - In this context, **enhancing resource efficiency** and promoting the **use of secondary raw materials** has emerged as a strategy to ensure sustainable development.
- **Resource efficiency (RE)** implies judicious use of earth's limited resources to achieve maximum benefit for sustained human wellbeing while minimizing the adverse impacts on environment.
 - It reduces **waste**, drives greater resource productivity, delivers a more **competitive economy**, addresses emerging resource scarcity issues, and helps reduce the **environmental impacts** associated with both production and consumption.
 - **6Rs Principle** is key to drive resource efficiency and refers to **reduce, reuse, recycle, refurbish, redesign and remanufacture**.
- The **Draft National Resource Efficiency Policy (NREP)** envisions a future with environmentally sustainable and equitable economic growth, resource security, healthy environment (air, water and land), and restored ecosystems with rich ecology and biodiversity.
- It is guided by the principles of
 - Reduction in primary resource consumption to 'sustainable' levels, in keeping with achieving the Sustainable Development Goals and staying within the planetary boundaries
 - Creation of higher value with less material through resource efficient and circular approaches
 - Waste minimization
 - Material security, and creation of employment opportunities and business models beneficial to the cause of environment protection and restoration.

Potential of Resource Efficiency

- **Economic Potential-**
 - Can help material savings of Rs. 60.8 billion in manufacturing sector alone.
 - Can reduce import dependence for critical minerals to improve the country's trade balance.



- Can improve resource availability that is critical to the growth of industries.
- **Social Potential-**
 - Can reduce conflict and displacement in mining areas, as well as improve health and welfare of local communities due to reduced extraction pressures.
 - Can improve affordability of and access to resources critical for poverty reduction. E.g. recycled aggregates and other secondary raw materials.
 - Can contribute towards preserving resources for future generations
- **Environmental Potential-**
 - Can reduce ecological degradation and pollution associated with mining due to reduced extraction pressures.
 - Can lead to reduction in GHG emissions from extraction, manufacturing and use phase.
 - Can provide opportunities for restoration of landscape and water bodies.

Salient Features of the NREP 2019

- **Priority resources, materials and sectors-** across the life-cycle are intended to be covered here such as-
 - **Resources and materials:** Metals, non-metallic minerals, air, water, land, biomass, fossil fuels.
 - **Sectors:** Construction, transport, plastic, packaging, electrical and electronic equipment, agriculture, metal industry (steel, aluminium etc.), textile, renewable energy, food etc.
 - **Wastes:** Municipal solid waste, plastic packaging, waste electrical and electronic equipments, industrial waste.
- **Indicators-** to track the progress on resource efficiency-
 - **Resource Productivity** - ratio of monetary output to resource input
 - **Domestic Material Consumption** - total amount of materials consumed by the economy
 - **Domestic Material Extraction** - input from natural environment to be used in the economy
 - **Direct Material Input** - direct input of materials for use in economy
 - **Waste recycling related indicators-** e.g. secondary raw materials recovered, recovery rate etc.
- **Institutional Set-up**
 - **National Resource Efficiency Authority (NREA)-** to be constituted under the provisions of Section 3(3) of the Environment (Protection) Act, 1986, will be mandated to drive the agenda of resource efficiency across the country. It will have a **collaborative structure** with a core working group and a members group with other stakeholders.
 - **Shared responsibility of Stakeholders-** such as-
 - ✓ **Role of Government-** in developing and implementing resource efficiency strategies, facilitate data compilation, setting up of infrastructure (e.g. Material Recycling Zones) among others.
 - ✓ **Role of Manufacturers and service providers-** in integrating design for recovery and recyclability in the product and formulating end-of-life management policy.
 - ✓ **Role of Consumers-** in creating demand for resource efficient products and services, engage in shared use of products and environmentally safe disposal of their end of life products.
 - ✓ **Role of Civil Society Organizations-** in awareness generation (especially amongst the informal sector) and advocacy of secondary material use.
 - ✓ **Role of Recyclers-** in maintaining required statutory norms and standards for occupational Health, Safety and Environment at premises. Also provide opportunities to the informal sector to become part of their formal setups.
 - ✓ **Role of Academia-** in introduction of courses on concepts like 'Circular Economy' and 'Resource Efficiency' in schools and colleges. Further research and training programs can also be brought.
- **Policy Instruments**
 - **Addressing regulatory gaps-** so as to integrate resource efficiency and circular economy across life cycle stages. For this proper guideline, mandatory quality and design standards need to be in place. Also new concepts like environmental liability can be utilized.
 - **Design of innovative market based instruments-** like taxes must incorporate the cost of externalities, tax exemptions for components using recycled material, tax sops for eco-labelled products and rationalization of tax regime to make secondary raw materials price-competitive.
 - **Green Public Procurement-** e.g. Public tenders that include quotas for locally sourced materials could be designed. A comprehensive and well-designed national level **Sustainable Public Procurement (SPP)** policy can be implemented.

- **Supporting recycling and recovery structures-** e.g. **Material Recovery Facilities (MRF)** needs to be set up equipped with best available technology systems for efficient **end-of-life collection**.
- **Strengthening product responsibility-** Extended Producer Responsibility (**EPR**) systems should be accompanied by reporting and monitoring mechanisms and could be supported by the creation and accreditation of more Producer Responsibility Organizations (**PROs**).
- **Creation of resource efficient business models-** by incorporation of Viability Gap Funding (**VGF**), seed funding for circular business models, dedicated Green fund among others.

Conclusion

Natural resources form the backbone of any economic development. Resources not only help in meeting our basic needs, but also fulfill human aspirations for a better quality of life, higher standards of living. This policy framework if implemented in its letter and spirit can reap large dividends.

5.6. ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

Why in news?

Recently, the Ministry of Environment, Forest and Climate Change released the **Environmental and Social Management Framework (ESMF)** in public domain.

Background

- The draft Environmental and Social Management Framework (ESMF) is part of a World Bank-funded project named **ENCORE (Enhancing Coastal and Ocean Resource Efficiency Program)** which aims to strengthen integrated coastal zone management in all coastal States and Union Territories of India.
- The ESMF has been prepared with an objective to **manage the social and environment impacts** through appropriate measures during the planning, design, construction and operation of various sub-projects of ENCORE.
 - It is a **tool for ENCORE Program** to screen the subprojects to categorise them based on defined criteria and to decide on how to manage these using either full-fledged ESIA's (**Environmental and Social Impact Assessment**) and ESMPs (**Environmental and Social Management Plan**) or some generic efforts are required.
- It aims to ensure the following:
 - Integration of environmental and social aspects into the **decision-making process** at all stages of the sub-projects.
 - Enhancement of **sustainable environmental and social outcomes** through sensitive planning, design and implementation of sub-projects,
 - Avoidance or **minimization of impacts** on cultural properties and natural habitats through careful planning and safeguards,
 - **Restoration of the livelihoods and living standards** of the subproject affected people and compensate any loss of livelihood or assets,
 - Adoption of **higher work safety standards**, occupational and community health and safety.
- The **Society of Integrated Coastal Management (SICOM)**, under MoEFCC is the **National Project Management Unit (NPMU)** for ICZMP and ENCORE Programs.

Need for an ESMF

- Depending on the nature and location, the project initiatives such as coastal protection measures, waste management, development of infrastructure facilities for livelihood support etc., are **likely to result in positive and negative impacts** on the project area during their construction and O&M phases.
- These impacts **assume importance** when the project locations are in the **proximity to sensitive areas**.
 - E.g. the Bombay high court struck down the **Coastal Regulation Zone (CRZ)** clearance for its Coastal Road, which is part of the **Eastern Freeway** to be constructed to provide an alternate speedy connect between South Mumbai and Western suburbs.
- Hence, there is a need for **systematic safeguards management** with pre-defined framework for risk mitigation.
- As all project locations and activities are not finalized, in order to **identify and manage associated environmental risks**, it is required to prepare an ESMF for the project.
- ESMF manages potential adverse impacts through a guide consisting of a set of **methodologies, procedures and measures** to facilitate adequate **environmental management** (risk management and impacts) of works related to the project and whose specific location is unknown or may change during project implementation.

Salient Features of ESMF

- **ESMF Adoption Framework**- which include various steps like: Screening and initial environmental and social examination, Environment and social review, implementation of environmental and social measures etc.
- **Resettlement Policy Framework**- Every Project Authority shall undertake a survey for identification of the persons and their families likely to be affected by the project.
 - Based on the social impact assessment survey, will prepare an action plan to mitigate or minimize the adverse impacts as identified during the survey.
 - The draft mitigation plan in form of resettlement action plan (RAP) will be again disseminated among the affected individuals / community.
- **Indigenous Peoples Planning Framework (IPPF)**- There has to be a social assessment and free, prior and informed consultation process leading to the broad community support by tribal for the project, and the development of an instrument for indigenous peoples in the form of a Tribal Peoples Plan (TPP).
- **Gender Action Plan**- will be prepared to analyse the gender issues during the preparation stage of sub project and design interventions.
 - Any project must address the constraints on women's participation in project design, construction, and monitoring and evaluation (M & E).
 - The project must also focus on the linkage between gender and poverty, by identifying, for example, households headed by females and those households' special needs.
- **Labour Management Framework**- since during the construction phase of the project of the different interventions in the States and UTs, **labourers will be hired**. This framework has to be in place to ensure that-
 - Potential impacts associated with influx of labourers on the host population and receiving environment are minimized
 - Provision of safe and healthy working conditions, and a comfortable environment for migrant labour
 - To ensure compliance with the national labour laws.
- **Grievance Redress Mechanism**- for the ENCORE Program incorporates an integrated system with Grievance Redressal Cell (GRCs), with necessary officers, officials and systems, at the SPMU in all the states and UTs.

Conclusion

- This should work like a **living document** and shall be updated as and when required according to the changing scenarios and challenges. It has to be a **continuous process** rather than a "one-off" investment action.
- So far **three coastal States**, namely Gujarat, Odisha and West Bengal, have prepared such plans for sustainable coastal management with support from the World Bank. Such plans should be prepared for the selected coastal stretches in other States/UT as well.

5.7. KUSUM

Why in News?

Recently, The Union Ministry of New and Renewable Energy (MNRE) has issued **operational guidelines for the implementation** of Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM Kusum) Scheme.

Background

- As a part of Intended Nationally Determined Contributions (INDCs), India has committed to **increase the share of installed capacity of electric power from non-fossil-fuel sources to 40% by 2030**.
- Large Scale Solar power generation projects are being installed to achieve the **target of 100 GW of Solar Power generation by 2022**.
- It has also been planned to **simultaneously develop decentralized Solar energy and other renewable energy generation Plants of capacity up to 2 MW** which could be connected directly to existing sub-stations of Distribution Company.
- Such plants near these sub-stations may be developed, preferably by **farmers, giving them an opportunity to increase their income by utilising their barren and uncultivable land for solar or other renewable energy based power plants**.

- Besides, developing decentralized renewable power, it is **planned to replace Agriculture Diesel pumps with Solar Water pumps and Solarise Grid connected Agriculture pumps.**
- Solarization of the pumps can **reduce dependence of these pumps on conventional sources of energy supplied by DISCOMs** and thus reducing their burden of subsidy on agriculture consumption of Electricity.
- Hence, **KUSUM was launched in February** which has provision for the decentralised renewable energy plants, Solar agriculture water pumps and solarisation of existing Grid connected Agriculture pumps.

Benefit of the scheme

- It will have substantial environmental impact in terms of **savings of CO₂ emissions.**
- Component-B of the Scheme on standalone solar pumps may result in **saving of 1.2 billion liters of diesel per annum** and associated savings in the foreign exchange due to **reduction of import of crude oil.**
- It will also have **direct employment potential** for skilled and unskilled workers.
- It will also **provide additional source of income to farmers** who will be in a position to sell the surplus power to DISCOMs.

About KUSUM Scheme

- The scheme aims to **provide energy security along with financial and water security to farmers.**
- It would **encourage farmers to generate solar power in their farms** and use the clean energy to replace their diesel water pumps.
- It targets to **add decentralised solar power capacity of 25,750 megawatt** by 2022.
- The approved scheme comprises three components:

Components	Details
Component A: setting up of 10,000 megawatt of decentralised ground/ stilt-mounted grid-connected solar or other renewable energy-based power plants.	<ul style="list-style-type: none"> Mandate- Under this component, solar or other renewable energy based power plants (REPP) of capacity 500 kW to 2 MW will be setup by individual farmers/ group of farmers/ cooperatives/ panchayats/ Farmer Producer Organisations (FPO) referred as Renewable Power Generator (RPG). Transmission of Power- The RPG will be responsible for laying of transmission line and comply with grid connectivity and other regulations. Power Purchase Agreement- shall be executed between the DISCOM and RPG with all the necessary conditions. The RPG shall also provide the bank guarantees to the DISCOMs. If the RPG is not able to generate minimum energy then it will be liable to pay compensation. DISCOMS to be provided performance-based incentives of Rs 0.40 per unit for five years 1,000 MW to be taken up on pilot basis first
Component B: Off-grid solar pumps	<ul style="list-style-type: none"> Mandate- Under this Component, individual farmers will be supported to install 17.50 lakh standalone solar Agriculture pumps of capacity up to 7.5 HP for replacement of existing diesel Agriculture pumps in offgrid areas. Requirements of Solar Pumps- It will be mandatory to use indigenously manufactured solar panels with indigenous solar cells and modules. Centre and state to share 30 per cent of pump cost each; farmer to provide the remaining 40 per cent (can access bank loan for up to 30 per cent of the cost)
Component C: Solarization of grid-connected electric pumps	<ul style="list-style-type: none"> Mandate- Under this Component, individual farmers having grid connected agriculture pump will be supported to solarise pumps. The farmer will be able to use the generated solar power to meet the irrigation needs and the excess solar power will be sold to DISCOMs. Quality Assurance and Evaluation Mechanism- Systems installed under this Programme should meet technical specification and construction standards as specified by BIS and MNRE from time to time. Allowed solar PV capacity up to two times the pump capacity in kW terms, to enable sale of excess power to discoms. Procurement based incentive of Rs 0.60 per unit for discoms to purchase of surplus power Both net-metering and on-way transfer of power allowed. Centre and state to share 30 per cent of pump cost each; farmer to provide the remaining 40 per cent (Can access bank loan for up to 30 per cent of the cost)

Challenges

- Increased Groundwater exploitation:** Increased dependence on groundwater for irrigation has resulted in improving agricultural yields, but it has also led to depletion of groundwater resources at an alarming rate.
 - Scheme fails to mandate or even suggest remote monitoring of pump use and groundwater withdrawal, particularly in states/regions with fast depleting aquifers.

- Free electricity through a large number of solar pumps will increase the chances of over-exploitation of water and risks the water table even in safe zones.
- **Missing measures to ensure efficient DISCOM participation:** The scheme provides DISCOMS with a procurement-based incentive of Rs 0.40 per unit for five years (or Rs 6.6 lakh per MW) to ensure efficient DISCOM participation. However, such an incentive is **missing in the case of on-grid pumps**.
- **Increase subsidy burden:** Although KUSUM aims to reduce subsidy burden of state discoms, it does not have any clear goals or provisions to ensure subsidy reduction. The subsidised solar pumps are being installed without accompanying cuts in agricultural supply or a reduction in subsidy. The result may, therefore, be an increase in total subsidy burden on states.
- **Missing the intended beneficiary:** The solar pump schemes have so far mostly failed to benefit their intended target group – small farmers. Most of the subsidised solar pumps had been installed by large farmers. The KUSUM scheme proposes installing solar plants on farm land. This option will require large investment which will likely exclude small farmers.
- **Missing financing mechanism:** The scheme requires up to 40 per cent financing by the farmer, of which 30 per cent may be available by banks. This requires development of an efficient financial ecosystem, currently missing in rural India. The guidelines fail in suggesting how it will be done.
- **Unclear Selection of beneficiary:** Off-grid and on-grid components of the KUSUM scheme call for priority being given to small and marginal farmers, however objective criteria for beneficiary selection is not defined. It is left to the state implementing agencies to select beneficiaries.

Way forward

- **Monitoring groundwater extraction:** Solar pump schemes should accompany explicit and strict measures of monitoring and control to manage groundwater extraction. Funds for solar pump schemes should be extended only to states willing to take such measures.
- **Increase agricultural tariffs:** Solarisation of feeders may be the most economical solution, but needs to be accompanied by gradual increase in agricultural tariffs and limits on hours of power supply.
- **Mini grid model:** Off-grid pumps should be considered only in exceptional cases, for unelectrified regions with relatively high water-table, and utilisation should be increased through a mini-grid model in which excess electricity can be used in households or for other economic uses.
- **Target and incentivise small and marginal farmers:** Clear targets must be set to provide solar pumps to small and marginal farmers. Providing access to financing is a crucial support needed by this segment.
- **Regulatory measures:** Efficient DISCOM operations should be ensured by regulatory mandates for regular reporting on installations, operations, evacuation, billing and payment to farmers.
- On-grid pumps are an alternative for water-scarce regions with high farmer distress, but **adequate and one-way power flow (as opposed to net meter)** is necessary to limit water withdrawal.
- **Address the state disparity issues:** KUSUM should aim to reduce the existing disparity among States with regard to solar pumps deployment and irrigation access. The disparity highlights poor State budget allocation towards solar pumps and the lack of initiative by State nodal agencies.
 - To encourage more equitable deployment of 17.5 lakh grid pumps by 2022, the Centre should incentivise States through target linked financial assistance, and create avenues for peer learning.

5.8. PAYMENT FOR ECOSYSTEM SERVICES

Why in news?

The results of the country's first-ever **Payment for Ecosystem Services (PES) agreement** in India have started showing up.

More on news

- The first ever PES agreement was signed between the Village Forest Development Society (VFDS) and the Palampur Municipal Council (PMC), Himachal Pradesh. Formalised in October 2010, it is a rural-urban engagement model for the sustainable supply of water and protection of the catchment area.
- A large part of the country's population is dependent for its livelihood on climate-sensitive sectors like agriculture and forestry. Any adverse impact on water availability threatens food security as well as causes the dieback of natural ecosystems, including species that sustain the livelihoods of rural households.

- Palampur's PES model is a step towards combating climate change impacts on water resources and can potentially be adapted for other natural resources in other parts of the country.

Payment for Ecosystem Services (PES) Agreement

- It involves payments to the managers of land or other natural resources in exchange for the provision of **specified ecosystem services** over-and-above what would otherwise be provided in the absence of payment.
 - Ecosystem services** are the benefits we derive from the natural environment, such as, the provision of food, water, timber and fibre; underlying functions such as soil formation and nutrient cycling.
- Stakeholders enter into PES agreements on a voluntary basis and are in no way obligated to do so.
- Thus, PES provides an opportunity to **put a price on previously un-priced ecosystem services** like climate regulation, water quality regulation and the provision of habitat for wildlife and, in doing so, brings them into the wider economy.
- The novelty of PES arises from its focus on the 'beneficiary pays principle', as opposed to the 'polluter pays principle'.
- PES may be positive from a buyer's perspective if the payments are less than those associated with any alternative means of securing the desired service. For example, it may be less expensive for a water utility to pay land owners for improved catchment management than to pay for additional water treatment.
- PES schemes may be positive from a seller's perspective if the level of payment received at least covers the value of any returns foregone as a result of implementing the agreed interventions. For example, a farmer may be willing to create ponds for enhanced water storage if the payments received at least cover the costs of doing so, including the costs associated with any lost agricultural production.



5.9. DEEP OCEAN MISSION

Why in news?

India will launch its ambitious 'Deep Ocean Mission' by October, 2019 to enter hitherto untapped 75,000 sq km of area in international waters to tap vast marine resources.

About Deep Ocean Mission (DOM)

- It aims to explore the depths of the Ocean for the possibilities of deep-sea mining.
- The mission proposes to explore the deep ocean similar to the space exploration started by ISRO about 35 years ago.
 - It would be an integrated programme where several scientific departments of the government such as ISRO, DBT, DST, DRDO and ICAR will work together for sustainable harnessing of ocean resources.
- Its focus will be on technologies for deep-sea mining such as under water vehicles, under water robotics and ocean climate change advisory services, among others.

Poly-Metallic Nodules

- Polymetallic nodules, also called manganese nodules, are rock concretions formed of concentric layers of iron and manganese hydroxides around a core.
- It has been estimated that 380 Million Metric Tonnes of PMN are available at the bottom of the seas in the Central Indian Ocean.
- India is the first country to have received the status of a pioneer investor in 1987 and was allocated an exclusive area in Central Indian Ocean Basin by United Nations (UN) for exploration and utilization of nodules.
- The program on Poly metallic nodules was initiated at CSIR-NIO with the collection of the first nodule sample from Arabian Sea on board the first Research Vessel Gaveeshani on 26 January 1981.

- Two key projects planned under DOM include a **desalination plant, powered by tidal energy** and a **submersible vehicle** that can explore depths of at least 6,000 meters.
- **Advancements made-**
 - A First Generation Mine-site (FGM) with an area of 18,000 Km² has been identified.
 - A remotely operable submersible (**ROSUB 6000**) – capable of operating at depths of 6,000 metres – has already been developed and tested successfully up to 5,289 metres depth.
 - Besides, a remotely operable **in-situ soil testing equipment** has also been developed for getting detailed geo-technical properties of the mining area at Central Indian Ocean Basin (CIOB).
 - These technological developments were funded under an umbrella scheme of the government – called Ocean Services, Technology, Observations, Resources Modelling and Science (**O-SMART**)

Significance of DOM for India

- India's Exclusive Economic Zone (EEZ) spreads over 2.2 Million sq.Km . EEZ are boundaries prescribed by the UNCLOS, which give special rights to a state regarding the exploration and use of marine resources.
- India has been allotted a site of 75,000 sq-Km in the Central Indian Ocean Basin (CIOB) by the UN International Sea Bed Authority for exploitation of Poly-Metallic nodules (PMN). The estimated polymetallic resource potential is about 380 million tones.
- Being able to lay hands on even 10% of that reserve can meet the energy requirement for the next 100 years.
- Researches and studies about the Ocean floor can help us to make informed decisions on Climate change.
- It will help in innovating technologies about the field from underwater vehicles to under water robotics, hence improving India's position in ocean research field.
- It will create huge jobs and business opportunities in Ocean science.
- The Mission will help in leveraging the blue economy for the country's overall economic growth.

ADVANCED COURSE GS MAINS

Targeted towards those students who are aware of the basics but want to improve their understanding of complex topics, inter-linkages among them, and analytical ability to tackle the problems posed by the Mains examination.

Covers topics which are conceptually challenging.

Approach is completely analytical, focusing on the demands of the Mains examination.

Comprehensive current affairs notes

Mains 365 Current Affairs Classes (Offline)

Sectional Mini Tests

Duration: 12 weeks, 5-6 classes a week (If need arises, class can be held on Sundays also)

Includes All India G.S.
• Mains (12 Test)
• Essay (3 Test) Test Series.

Scan the QR CODE to download VISION IAS app

LIVE/ONLINE CLASSES AVAILABLE

Admission Open

6. SOCIAL ISSUES

6.1. THE MUSLIM WOMEN (PROTECTION OF RIGHTS ON MARRIAGE) ACT, 2019

Why in news?

President gave assent to the **Muslim Women (Protection of Rights on Marriage) Act 2019**. It will replace the **1986 Muslim Women (Protection of Rights on Divorce) Act**, enacted after the Shah Bano Case.

Major Provisions of the 2019 Act:

- It **invalidates the practice of instant triple talaq (talaq-e-biddat) as void and illegal**.
- It also makes instant **triple talaq a criminal offence** with imprisonment up to three years and fine.
- It also provides to **make the offence cognizable**, if information relating to the commission of an offence is given to the Police, by the married Muslim woman upon whom talaq is pronounced or by any person related to her by blood or marriage (A cognizable offence is one for which a police officer may arrest an accused person without warrant.).
- The Act also provides **scope for reconciliation** without undergoing the process of **Nikah Halala** if the two sides agree to stop legal proceedings and settle the dispute.
- **Allowance:** A Muslim woman against whom talaq has been declared, is entitled to seek subsistence allowance from her husband for herself and for her dependent children. The amount of the allowance will be determined by the **Magistrate**.
- **Custody:** A Muslim woman against whom such talaq has been declared, is entitled to seek custody of her minor children. The manner of custody will be determined by the **Magistrate**.

Arguments in favour of the Act

- **Need for a stringent law:** **Supreme Court** judgment of 2017 had recognised the **discriminatory nature** of triple talaq. The Muslim Women (Protection of Rights on Marriage) Act 2019 offers Muslim women **recourse and access to protection of the law from the practice of arbitrary instant divorce**.
 - Without a concrete law in place the hard-won cause of **gender justice for Muslim women** would not be actualised.
- Making it an offence, it will **deter** resorting to triple talaq, and provide redress for women in the form of a **subsistence allowance and custody of children, besides getting the erring husband arrested**.
- The **legislation brings India at par with other Muslim majority states** including Pakistan and Bangladesh. This was long overdue for a country that has taken pride in its adherence to the principles of secularism, democracy, and equality.
 - **Triple talaq has never been sanctioned even in Islamic scriptures**. Despite disapproval from the highest quarters in Islam, and the fact that **many Muslim countries** following sharia laws also chose to reform it one way or another — including making it penal in many cases.

About the Shah Bano Case

- The Shah Bano case was a **milestone** in the Muslim women's search for justice and the beginning of the **political battle over personal law**.
- A 60-year-old woman went to court asking maintenance from her husband who had divorced her. The court ruled in her favour. Shah Bano was **entitled to maintenance** from her ex-husband under **Section 125 of the Criminal Procedure Code**
- However, the then government enacted the **Muslim Women (Protection of Rights on Divorce) Act, 1986**. It gave, Muslim woman the right to maintenance **for the period of iddat (about three months) after the divorce**, and shifted the onus of maintaining her to her relatives or the Wakf Board.
- The Act was seen as **discriminatory** as it denied divorced Muslim women the right to basic maintenance which women of other faiths had recourse to under secular law.

Changes made from the Original Bill of 2017

- The Act makes the **offence cognisable** only if the woman, or one related to her by blood or marriage, against whom triple talaq has been pronounced, files a police complaint.
- Second, **the offence has been made compoundable**, that is, the parties can settle the matter between themselves.
- And third, it provides **that a magistrate may grant bail to the husband after hearing the wife**.

These amendments will not only **restrict the scope for misuse by preventing third parties from setting the criminal law in motion against a man** pronouncing instant triple talaq against his wife, they will also leave open the **possibility of the marriage continuing** by allowing bail and settlement.

- **Personal laws of other religious communities**, Hindus and Christians, have addressed some concerns relating to gender equality in matters of inheritance and polygamy. This legislation, hence presents an opportunity to **put in place a civil code** that steeped in equality—**across faiths and gender**.

Arguments against the Act

- **Criminalising a civil wrong:** This Bill became the first instance in free India where criminal provisions have been brought into matters of marriage and divorce which are **civil matters**. It raises the question if a marital wrong, should lead to prosecutions and jail terms.
- **Issue of proportionality:** A three-year prison term, besides a fine, also raises the **issue of proportionality**. The **Act** violates constitutional rights as it stipulates **three-year jail term for guilty Muslim men** while non-Muslim men get only **one** year of jail term for a similar offence.
- **Issue of accountability:** The triple divorce law is bound to fail, especially in cases of oral triple divorce given by husbands when no one other than the couple was present, as discharging the burden of proof will be a massive task for the prosecution.
- There are concerns that the Act might lead to **more divorces and abandonment**. Issues remain as no husband on his return from jail is likely to retain the wife on whose complaint he had gone to prison.

Conclusion

- The passage of the Muslim Women (Protection of Rights on Marriage) Act, 2019 criminalising triple talaq is a moment of great import for gender equality and justice and for India's legislative history.
- However, a **sound legal framework to deal with all issues arising from instant talaq** needs to be revisited on the basis of the outcome of social response.
- The government should **ask the Law Commission to review all personal/civil laws** to address the gender inequities that persist in civil and personal laws across the board as **India needs a non-sectarian, gender-neutral law that addresses desertion of spouses**.

6.2. TRANSGENDER PERSONS (PROTECTION OF RIGHTS) BILL, 2019

Why in News?

Recently, the Lok Sabha passed Transgender Persons (Protection of Rights) Bill, 2019

The Transgender Persons (Protection of Rights) Bill, 2019

- **Definition of a transgender person:** The Bill defines a **transgender person** as one whose gender does not match the gender assigned at birth. It includes trans-men and trans-women (whether or not such person has undergone sex reassignment surgery or hormone therapy or laser therapy or such other therapy), persons with intersex variations, gender-queers, and persons with socio-cultural identities, such as kinnar and hijra.
- **A person would have the right to choose to be identified** as a man, woman or transgender, irrespective of sex reassignment surgery and hormonal therapy. It also requires transgender persons to go through a district magistrate and district screening committee to get certified as a trans-person.

Various forms of Talaq/Separation

Instant triple talaq (talaq-e-bidat) was challenged in the court. In the practice of **talaq-e-biddat**, when a man pronounces talaq thrice in a sitting, or through phone, or writes in a talaqnama or a text message, the divorce is considered immediate and irrevocable, even if the man later wishes to reconcile.

- The only way for the couple to go back to living together is through a **Nikah Halala**, and then return to her husband.
- The practice of **talaq-e-biddat** has been viewed as abhorrent in theology but upheld as valid by law.

“Talaq-ul-sunnat”: Under this, once the husband pronounces talaq, the wife has to observe a three-month iddat period during which the husband can arbitrate and re-conciliate with the wife. In case of cohabitation between the couple, during these three months, the talaq is revoked.

- However, when the period of iddat expires and the husband does not revoke the talaq, the talaq is irrevocable and final.
- It is considered to be the ideal form of dissolution of marriage contract among Muslims.

Nikah Halala: refers to practice under which a divorced Muslim woman has to marry another man and consummate the marriage and get a divorce. Only then can she be eligible to remarry her former husband.

- **Prohibition against discrimination:** It prohibits discrimination against a transgender person in areas such as education, employment, and healthcare.
 - **No government or private entity can discriminate against a transgender person** in employment matters, including recruitment, and promotion. Every establishment is required to designate a person to be a complaint officer to deal with complaints in relation to the Act.
- **Right of residence:** Every transgender person shall have a right to reside and be included in his household. If the immediate family is unable to care for the transgender person, the person may be placed in a rehabilitation centre, on the orders of a competent court.
- **Welfare Measures:** The Bill states that the relevant government will take measures to ensure their rescue and rehabilitation, vocational training and self-employment, create schemes that are transgender sensitive, and promote their participation in cultural activities.
- **Healthcare:** The Government shall take the following measures in relation to the transgender persons, namely:
 - a separate HIV surveillance Centres;
 - to provide for medical care facility including sex reassignment surgery and hormonal therapy; pre and post sex reassignment surgery and hormonal therapy counselling;
 - to facilitate access to the transgender persons in the hospitals and other healthcare institutions and centres;
 - provide comprehensive medical insurance schemes for transgendered persons.
- **The Bill also has provisions for penalty and punishment** which vary between six months and two years in cases of offences and sexual harassment against transgender persons. The offences include:
 - forced or bonded labour (excluding compulsory government service for public purposes),
 - denial of use of public places,
 - removal from household, and village,
 - physical, sexual, verbal, emotional or economic abuse.
- **National Council for Transgenders(NCT):** It directs Central government to constitute a NCT headed by the Union Minister of Social Justice and Empowerment.
 - The Council will advise the central government as well as monitor the impact of policies, legislation and projects with respect to transgender persons. It will also redress the grievances of transgender persons.
- **A contentious provision that criminalised begging by transgender people has been removed** from the Bill. The provision was part of the Bill when it was introduced by the previous government.

Issues with the bill

- The Bill has **not provided any self-identification rights**, promised by the NALSA judgment of 2014. There is a provision regarding **obtaining certificate of identity from District Magistrate**.
 - It is also **contrary to international standards for legal gender recognition** which call for separation of legal and medical processes of gender reassignment for transgender people.
- The **bill empowers the district magistrate to judge the “correctness” of the application** and decide whether to issue the change in gender certificate but does not give guidelines on how this decision should be made. Bill also mentions no provisions for an appeal or review of the decision taken by the District Magistrate.
- Bill **does not provide for any reservations** in the field of employment and education as directed by the Supreme Court in the NALSA verdict.
- The bill is silent on whether a trans person who holds a male or female gender certificate will have access to government welfare schemes and programs meant for transgender people.
- Certain criminal and personal laws that are currently in force only recognise the genders of ‘man’ and ‘woman’. It is unclear how such laws would apply to transgender persons who may not identify with either of the two genders.
- It does not include the creation of institutions like the national and State commissions for transgenders, as well as transgender rights courts which were part of the earlier draft bill.

Way forward

- It is important to **sensitize parents of transgender children and other members of the society** with regards to the human rights of the transgender community.

- While various state governments formulated schemes for transgender communities, a National policy is an urgent need to ensure greater involvement of transgender persons in policy formulation and program development.
 - Tamil Nadu is taking steps for development of transgenders by providing them education, identity cards and subsidized food and free housing.
 - Kerala government brought the 'State Policy for Transgenders in Kerala 2015' to provide the "right to live with dignity."
- Legal and the law enforcement systems need to be empowered and sensitized on the issues of Transgender community. Special Grievance Redressal Cells for their protection should be set up in all police stations.
- Government should amend criminal Procedure Code and the Indian Evidence Act, 1872 in order to make sexual crimes gender-neutral by including men and transgender people in addition to women

Recent judgment on status of transgender

- In 2014, the Supreme Court in NALSA vs union of India ruled that transgender people should be recognized as a third gender and enjoy all fundamental rights, while also being entitled to specific benefits in education and employment.
- In 2018, in a historic decision upholding privacy and non-discrimination of LGBT persons, the Supreme Court struck down the colonial-era law that criminalized consensual same-sex relations.
- Recently, Madras High Court, ruled that the term "bride" under the Hindu Marriage Act, 1955 includes transwomen. Further it directed the authorities to register a marriage between a man and a transgender woman.

6.3. SURROGACY BILL

Why in news?

Recently, the **Surrogacy (Regulation) Bill, 2019** was passed in the Lok Sabha.

Background

- **Surrogacy** is the practice whereby one woman carries the child for another with the intention that the child should be handed over after birth. Such a surrogacy arrangement may be **altruistic** or **commercial** in nature.
- The government introduced the Surrogacy (Regulation) Bill, 2016 in the Parliament, which was then examined by the standing committee.
- After the dissolution of last Lok Sabha, the bill lapsed and now this bill was brought to replace it.

Provisions of the Bill

- **Prohibition of Commercial Surrogacy-** which includes surrogacy or its related procedures undertaken for a monetary benefit or reward (in cash or kind) exceeding the basic medical expenses and insurance coverage.
 - It also prohibits surrogacy for producing children for sale, prostitution or other forms of exploitation.
 - But the bill allows **Altruistic Surrogacy**, where no such other monetary compensation is paid to the surrogate mother.
 - **Other purposes where surrogacy is allowed-** include for intending couples who suffer from proven infertility, for any condition or disease specified through regulations.
- **Lays out various eligibility criteria-**
 - **For intending couple-** who should have a 'certificate of essentiality' and a 'certificate of eligibility' issued by the appropriate authority.

More about Surrogacy

- **Altruistic surrogacy-** where the couple does not pay the surrogate mother any compensation other than the medical and insurance expenses related to the pregnancy.
- **Commercial surrogacy-** here compensation (in cash or kind) paid to the surrogate mother, which exceeds the reasonable medical expenses associated with the pregnancy.
- India has emerged as a surrogacy hub for couples from other countries and there have been reports concerning unethical practices, exploitation of surrogate mothers, abandonment of children born out of surrogacy, and rackets involving intermediaries importing human embryos and gametes.
- A study conducted in July 2012 put the surrogacy business at more than \$400 million with more than 3000 fertility clinics all over the country.
- The 228th report of the Commission of India had recommended prohibiting commercial surrogacy and allowing altruistic surrogacy by enacting suitable legislation.
- According to a Centre for Social Research (CSR), the reason driving the mothers to surrogacy is usually poverty and lack of education, which further ensures their inability to challenge the exploitation.

- ✓ The certificate of essentiality will be issued on grounds like proven infertility of one or both parents, order of parentage of the child passed by a Magistrate's court and an insurance coverage.
- ✓ The eligibility criteria for the couple include-
 - Couple being Indian citizens and married for at least five years,
 - Aged between 23 to 50 years old (wife) and 26 to 55 years old (husband),
 - Do not have any surviving child (biological, adopted or surrogate),
 - Would not include a child who is mentally or physically challenged or suffers from life threatening disorder or fatal illness.
- **For surrogate mother-** who should be a –
 - ✓ Close relative of the intending couple,
 - ✓ Married woman having a child of her own,
 - ✓ 25 to 35 years old
 - ✓ Surrogate only once in her lifetime
 - ✓ Possess a certificate of medical and psychological fitness for surrogacy
- **Establishment of Authorities-** Both the central and state governments shall appoint **one or more appropriate authorities**, including the **National and State Surrogacy Boards**, within 90 days of the Bill becoming an Act. Apart from regulation of surrogacy clinics, they will enforce standards, investigate any breach of the provisions of the Bill and recommend modifications to the rules and regulations.
- **Parentage and abortion of surrogate child:** A child born out of a surrogacy procedure will be deemed to be the biological child of the intending couple. An abortion of the surrogate child requires the written consent of the surrogate mother and the authorisation of the appropriate authority. This authorisation must be compliant with the Medical Termination of Pregnancy Act, 1971. Further, the surrogate mother will have an option to withdraw from surrogacy before the embryo is implanted in her womb.
- The Bill specifies a range of **offences and penalties** for other contraventions of the provisions of the Bill.

Issues with the bill

- **Leaves lot of stakeholders-** including unmarried couples who want to have a baby through surrogacy, gay couples and single men and women.
 - The decision to keep live-in partners out of the purview of the Bill is indicative of the fact that the Bill is not in consonance with the present-day modern social milieu. Even the Supreme Court has given a legal sanctity to live-in relationships.
- **Lack of clarity on altruistic surrogacy-**
 - It only allows a “close relative” of the married couple to undertake “altruistic surrogacy”, but it does not define the term “close relatives”.
 - The Parliamentary Standing Committee observed that, definition of ‘altruistic’ surrogacy, cannot work in a patriarchal structure. The surrogate is likely to be coerced and will get nothing out of this arrangement, reinforcing the idea that a woman’s body is not her own.
 - It drew attention towards the dynamic structure of Indian society wherein the decision-making power rarely rests with women and not so privileged or financially weak relatives who can be coerced into becoming surrogate mothers and the chances of coercion and exploitation are even more in case of close relatives, due to family pressures.
 - Altruistic surrogacy has failed in other countries, and has resulted in various other forms of assistance being given, though money may not be paid.
- **Banning commercial surrogacy may not be the solution-**
 - A total ban on commercial surrogacy may push the industry underground and render surrogate mothers even more vulnerable.
 - Further efforts should have been focussed on addressing the concerns of exploitation not banning the source of livelihood for many poor women. Focus should have been on improve her work conditions, make the process safe and secure for her, improve the terms of her contract for her.

Conclusion

India is one of the biggest centres of Surrogacy in the world which requires a well-defined legal system governing the process for the protection of the surrogate mother, the child thus born and also of the rights of the parents involved.

- **Provisions will prevent exploitation-** of surrogate mothers and children born through surrogacy. A vast majority of surrogates are poor or illiterate women who may have only a weak grasp of their contractual rights.
- **Keeps the health of the mother a top priority-** by capping the surrogacy to only once in her lifetime as surrogacy cannot be a way out for women opting for surrogacy due to poverty and should not be allowed as a profession.

6.4. NATIONAL MEDICAL COMMISSION ACT 2019

Why in News?

Recently, President gave assent to National Medical Commission (NMC) Act 2019.

Background

- **Prof. Ranjit Roy Chaudhury committee** (2015) recommended structurally reconfiguring the (Medical Council of India) MCI's functions and **suggested the formation of a National Medical Commission.**
- Various other committees such as **Lodha Panel (2016)** and **Arvind Panagariya** have also previously suggested scrapping of the MCI.
- Government earlier superseded the MCI through the Indian Medical Council (Amendment) Ordinance, 2018. The powers of the MCI were also switched from the elective council body to the board of governors.
- Recently, the government also passed the **Indian Medical Council (Amendment) Bill of 2019** to further continue the interim provisions of the ordinance.
- The National Medical Commission (NMC) Act, 2019 seeks to replace the MCI with a National Medical Commission and overhaul the medical education system.
- However, there are certain sweeping provisions in the Act that has **led doctors to protest against the act.**

Reasons for the introduction of the Act

- **Poor doctor-population ratio:** India has a doctor-population ratio of 1:1456 as compared with the WHO standards of 1:1000.
- **Poor distribution of doctors:** In addition, there is a huge skew in the distribution of doctors working in the Urban and Rural areas with the urban to rural doctor density ratio being 3.8:1.
- **Poor condition in rural areas:** Consequently, most of rural and poor population is denied good quality care leaving them in the clutches of quacks. It is worth noting that at present 57.3% of personnel currently practicing allopathic medicine does not have a medical qualification.
- **Issues with MCI**
 - It failed to produce sufficient number of doctors.
 - Shortage of teachers in medical colleges and poor regulation of undergraduate and postgraduate courses.
 - Lack of accountability, alleged corruptions and failure to discharge mandated responsibilities.
- It will help to **address issues faced by medical education in India.**

Medical Council of India

- It is a statutory body, established under **Indian Medical Council Act 1956.**
- It regulates
 - standards of medical education.
 - permission to start colleges, courses or increase the number of seats.
 - standards of professional conduct of medical practitioners such as registration of doctors etc.

Issues faced by medical education in India

- **Lack of seats:** There still exists a disproportionate relationship between the number of students and available medical seats.
- **Rapid and uneven growth of medical colleges:** Number of medical colleges has more than doubled during last 25 years. New private medical colleges account for most of the growth and it has also led to increase in demand of medical education with high tuition fee.
- **Accreditation standards:** Accreditation by MCI is compulsory but requested information emphasizes documentation of infrastructure and human resources (head counting) rather than measures of quality of medical education and outcomes.
- **Shortage of medical teachers:** There is 30-40% shortage of medical teachers. In last 3 years, numbers of medical colleges has gone up to 38, thus requiring 4000 more teachers additional to already shortage of medical teachers.
- **High cut off rates, unavailability of medical equipment, and poor return on investment (ROI)** are some of the challenges which are steadily deteriorating medical education in the country.

About NMC Act

- The Act seeks to **propose to repeal the Indian Medical Council Act, 1956 and replace the Medical Council of India (MCI)**
- It provide for a **medical education system** which ensures:
 - availability of adequate and high quality medical professionals
 - adoption of the latest medical research by medical professionals
 - periodic assessment of medical institutions
 - an effective grievance redressal mechanism.
- **Constitution of the National Medical Commission:** The Act sets up the National Medical Commission (NMC). Also, Within three years of the passage of the Act, state governments will establish State Medical Councils at the state level.
 - The NMC will consist of **25 members, appointed by the central government.**
 - A **Search Committee** which will be nominated by the central government will recommend names to the central government for the post of Chairperson, and the part time members.
 - Members of the NMC will include:
 - ✓ the Chairperson (must be a medical practitioner)
 - ✓ Presidents of the Under-Graduate and Post-Graduate Medical Education Boards
 - ✓ General of Health Services, Directorate General of Health Services
 - ✓ Director General, Indian Council of Medical Research
 - ✓ five members (part-time) to be elected by the registered medical practitioners from amongst themselves from states and union territories for a period of two years.
- **Medical Advisory Council:** Under the Act, the central government will constitute a Medical Advisory Council.
 - The Council will be the **primary platform** through which the states/union territories can put forth their **views and concerns before the NMC.**
 - Further, the Council will advise the NMC on **measures to determine and maintain minimum standards of medical education.**
- **Autonomous boards:** The Act sets up autonomous boards under the supervision of the NMC. Each autonomous board will consist of a President and four members, appointed by the central government. These boards are
 - **Under-Graduate Medical Education Board** and **Post-Graduate Medical Education Board** to set standards and regulate medical education at undergraduate level and postgraduate level respectively.
 - **Medical Assessment and Rating Board** for inspections and rating of medical institutions and
 - **Ethics and Medical Registration Board** to regulate and promote professional conduct and medical ethics and also maintain national registers of (a) licensed medical practitioners and (b) Community Health Providers (CHPs).
- **Limited licensing:** Under the Act, the NMC may grant a limited license to certain mid-level practitioners connected with the modern medical profession to practice medicine. These mid-level practitioners may prescribe specified medicines in primary and preventive healthcare.
- **Entrance examinations:** There will be a uniform National Eligibility-cum-Entrance Test for admission to under-graduate and post-graduate super-speciality medical education in all medical institutions regulated under the Act. The NMC will specify the manner of conducting common counselling for admission in all such medical institutions.
- **National Exit Test (NEXT):** The Act also mentions that National Exit Test, which is to gain a licence to practise after MBBS, can also serve as an entrance examination to post-graduate level.
- **Regulation of fees:** The Act also proposes for the NMC to "frame guidelines for determination of fee and other charges" for 50% of seats in private medical institutions and deemed to be universities.

Functions of the National Medical Commission

- framing policies for regulating medical institutions and medical professionals
- assessing the requirements of healthcare related human resources and infrastructure
- ensuring compliance by the State Medical Councils of the regulations made under the Act
- framing guidelines for determination of fees for up to 50% of the seats in private medical institutions and deemed universities which are regulated under the Act.



- Currently, state governments determine fees for 85% of seats in such institutions and the rest are left for the management.

Benefit of the Act

- **Improved medical education system:** The Act aims to provide for a medical education system that improves access to quality and affordable medical education, ensures availability of adequate and high quality medical professionals in all parts of the country.
- **Addressing shortage of doctors:** Countries such as Thailand, United Kingdom, China, and even New York have permitted Community Health Workers/Nurse Practitioners into mainstream health services, with improved health outcomes. Since India have shortage of doctors and specialists, the task shifting to Mid-level Provider will relieve the overburdened specialists.
 - Chhattisgarh and Assam have also experimented with the Community Health Workers. They have performed very well and there is no ground of concern if the quality of personnel is regulated tightly.
- **Regulation of fees:** IMC Act, 1956 has no provision for regulation of fees. As a result, some states regulate the fees of some seats in private colleges through MoUs signed with college managements.
 - Nearly 50% of the total MBBS seats in the country are in government colleges, which have nominal fees. Of the remaining seats, 50% would be regulated by NMC. This means that almost **75% of total seats in the country would be available at reasonable fees.**
 - In the **spirit of federalism, the State governments would still have the liberty to decide fees for remaining seats** in private medical colleges on the basis of individual MOUs signed with colleges on the basis of mutual agreement.
- **Transparency:** Act will help to ensure transparency and accountability in education system and control through NMC.

Why it is being opposed?

- **Centralisation of power:** Act seeks to form NMC, which will be the overarching body on medical education and research and for the practitioners. It is complete abandonment of federalism and autonomy of medical education.
- **Interference from Bureaucracy:** Bureaucracy can have upper hand in all the important bodies where appointment is being done by Centre.
- **Opacity in the selection process:** There is no provision of election for all the chief posts of these multiple bodies.
- **Less control of States:** States have been reduced to mere advisory roles from being in governance mode. Also due fees regulation by commission States are led to a no-holds barred situation for private medical colleges.
- **Oversized body:** Scale of the commission would make matters worse. Advisory council will comprise more than 100 members, including 24 members of the commission. Reaching consensus will become difficult.
- **Ambiguity over NEXT exam:** It seems that those who don't clear the exam will not be allowed to practise at all, which is huge. Last year, 1.15 lakh students undertook PG entrance exam but only 80,000 qualified. The others are still practising as MBBS doctors. This Act would altogether stop that. It will lead to acute shortage of doctors when our country is already facing so.
- **Interference by third party in inspection/ corruption:** According to the Act, not only can members of the board inspect, but it may "hire and authorise any other third party agency or persons for carrying out inspections. So far, medical colleges were only inspected for approval by the Medical Council of India (MCI), but this responsibility has now been entrusted upon Medical Assessment and Rating Board. This will append the corruption of which the MCI was accused
- **Unclear provision of community health providers (CHPs):** the government failed to define who would be those CHPs. IMA vehemently opposed this step as this would legalise quackery.

Way forward

- **Voluntary and grade based NEXT exam:** If at all, an exit exam was to be given, it should have been made voluntary and grade-based. So if a MBBS practitioner wants grade-accredited, s/he could have taken it, as is the precedent in some countries.
- **Trained team of auditors:** Inspection should be done with doctors' designated bodies to keep it corruption free.

- **More stakeholders involvement:** In order to ensure fair decision making all stakeholders should be given the importance and also the role of state should be increased.
- **Other suggestions for medical education in India**
 - To achieve higher standards of medical education, our goal should be to re-evaluate each and every aspect;
 - create an efficient accreditation system;
 - promote an equal distribution of resources,
 - redesign curricula with stricter implementation and improved assessment methodologies.

6.5. MOB LYNCHING

Why in news?

Rajasthan assembly recently passed anti-mob lynching bill.

Mob Lynching in India

- Mob Lynching or Mob violence is a **violent punishment or execution, without following due process of law, for real or alleged crimes.**
- In September 2017, the Supreme Court had asked states to take strong measures to curb such instances of violence in the name of cow protection, but not much steps were taken to that effect.
- **Supreme Court** has denounced the **horrendous acts of mobocracy** and gave certain directions to deal with such crimes.
 - Appointment by states of senior police officers as nodal officers in districts,
 - Identification of vulnerable and sensitive regions
 - More efficient patrolling of highways in these areas
 - Lodging of FIRs without delay
 - Compensation schemes for victims and their families
 - Designated fast track courts to try the culprits
 - Prompt departmental action against police officers and administrative officials who fail to uphold the law.
 - A **special law** to be framed by Parliament, creating a **separate offence of lynching.**
- Apart from Rajasthan, West Bengal government is also planning to introduce. Bill against mob lynching.

Need of a separate law

- **No existing law:** Presently there is no law which criminalizes mob lynching as a separate crime.
- **Deterrence:** A dedicated law would help create enough deterrence against such heinous crime.
- **Ensure governance:** The killing of human being by a crowd out to enforce mob justice puts a dent on democratic society and questions governance capabilities of the state. Thus, it needs to be punished.
- **Deal with multi-dimensional challenges:** such as vigilantism, lynching due to spread of rumor etc.

However, some experts feel that the lynch mob is a law and order challenge and there are enough provisions in IPC related to murder, attempt to murder, acts done by several persons in furtherance of common intention etc. to tackle such menace if implemented strongly and effectively.

Issues with mob lynching

- **Against rule of law:** The process of adjudication takes place within the courts of justice, and not on the streets.
- **Against human rights:** The lynching by mob create an atmosphere where human beings are dehumanised, freedom of speech, expression and personal choices are endangered and plurality and diversity is not accepted.
- **Fuel communalism and casteism:** as in most cases, victims are the most vulnerable people of society - nomadic tribes, religious minorities, lower castes etc.
- **No database to analyse trends:** As per Ministry of Home Affairs there is no record keeping on public lynching. Thus, making it difficult to draw conclusions and possible solutions to the problem.
- **Rise in causes that fuel the tendency towards such incidents**
 - Loss of **faith of people in the judicial/democratic system** of governance especially the poor and marginalized. So they are tempted to deliver instant justice in their own ways.
 - **Socio-political framework:** it involves people with little or no education, deep fissures and mistrust, political patronage to achieve narrow political gains, rising intolerance and growing polarization.

- **Misinformation and propagandas spread through platforms like Facebook, WhatsApp:** For e.g. recent rumours regarding child lifters have incited many impulsive and unplanned acts of violence across the country.
- **The incapability/unwillingness of law enforcement agencies** to act against mob crimes further encourages it to take the law into their own hands frequently. Public officials and police departments should be held accountable for showing incompetence rather than putting onus on social media platforms completely
- **Dispersion of responsibility and guilt** unlike sense of responsibility in individual action.

Way forward

- **Setting example and ensuring prosecution and punishment:** Mob lynching points to a disruption that reflects the loss of trust in state capabilities in justice delivery. Thus, such reiterative brutality and assaults on personal liberty and the right to life needs to be suppressed and punished so that perpetrators know that they would not be able to get away with it.
- **Focus needed on social/attitudinal change:** through reaching out to local communities to keep peace and check trouble makers from spreading rumours, creating awareness regarding misuse of social media by mass campaigns with help of civil society etc.
- **Strengthening administration and governance to ensure public confidence in state institutions:** by strengthening local intelligence networks, swifter response from police, proactive flagging of rumors.
- **Holding Social media platforms accountable:** WhatsApp should change its platform to enable privacy in messages between individuals and tracking identity where forwarded message is to public.
- **Adopt innovative practices as adopted in various states:** For example
 - **Telangana police** has trained a team of 500 police officers to tackle the fake news menace. These officers go to villages to spread awareness about social issues. Police personnel have also been added to local WhatsApp groups in villages to spot rumors that could lead to violence.
 - The **West Bengal police** took to Twitter to dispel a rumor that government had sanctioned a five-day holiday on account of Eid, nixing attempts to incite communal tension.

6.6. POPULATION POLICY

Why in news?

Recently, there has been a demand to adopt a **new population policy** for the country.

Background

- Recently, on the **World Population Day** (July 11th), some concerns were raised that there has been a “**population explosion**” in the country. Also, there has been a popular demand from various corners to implement certain measures to implement population control such as-
 - Call for enacting population control laws
 - Annulling the voting rights of those having more than two children.
- However, the Economic Survey 2018-19 has rebutted these observations. As per it, India is set to witness a “**sharp slowdown in population growth in the next two decades**”.
- The fact is that by the 2030s, some States will start **transitioning to an ageing society** as part of a well-studied process of “**demographic transition**” which sees nations slowly move toward a **stable population** as fertility rates fall with an improvement in social and economic development indices over time.
 - The National Family Health Survey (**NFHS**)–4 revealed that 24 states in the country have already achieved **replacement level fertility** (2.1).
 - India’s declining fertility can largely be attributed to key determinants like increasing emphasis on **women’s education** and their **participation in the labour force**.
- In this background, it is said that rather merely focussing on population stabilization, there is a need to focus on other components of the population policy.

Population Policy of India

- Over the years, India has achieved a **steady decline in its fertility rates** and a slowing down of its population growth.

- India has the distinction of being the **first country** in the world to launch a **national programme**, emphasizing family planning to the extent necessary for reducing birth rates "**to stabilize the population at a level consistent with the requirement of national economy**"
- The **National Population Policy 2000 (NPP 2000)** affirms the commitment of the government towards **voluntary and informed choice** and consent of citizens while availing of **reproductive health care services** and continuation of the **target free approach** in administering family planning services.
- Under this policy, various **less developed states** have seen improvement in parameters such as Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh, Odisha, Chhattisgarh, Jharkhand and Assam.

- Their demographic indicators began to be **monitored** relentlessly.
- For the first time the **decadal growth rate** in these states has reduced.
- The **age of marriage** went up, so preventing thousands of maternal and new-born deaths and stillbirths.
- The **hospital-based deliveries** have doubled in some states with near-tripling in Madhya Pradesh and Odisha, especially due to the National Rural Health Mission (NRHM).

Need of a new Population Policy for India

- **Creation of wrong perception-** by associating population growth with various issues of the country and more people chase fewer and fewer resources.
 - **Lead to conflicts-** as this perception can quickly degenerate into a deep class or religious conflict that pits the poor, the weak, the downtrodden and the minorities against the more privileged sections.
- **Lack of success on various parameters-** of the National Population Policy 2000 such as-
 - The **Infant Mortality Rate (IMR)** was to have been reduced to **30** per thousand live births and the **Maternal Mortality Ratio (MMR)** to less than **100** per 1 lakh live births. Today, in 2015, five years after the goals were to have been realised, India has achieved neither.
- **Skewed female and child sex ratio-** which is spreading from urban into rural areas.
 - Discriminatory social barriers like the absence of women's ownership rights over land and property are responsible for the continuing son preference.
- **Migration-** can lead to issues of **sons of soil doctrine** (insider vs outsider conflict) as well as strain on the infrastructure, housing and water availability.
- **Ageing-** The growing population of the elderly and the increase in life expectancy accompanied by chronic diseases have the potential to deflect resources from the primary task of providing education, skill development and increasing employability.
 - In the next 10 years, the elderly will account for 12% of the country's population.
 - There are issues faced by elderly in availing benefits of old-age homes and protective laws.
 - Dependency ratios are increasing rapidly while the joint family system has disintegrated.
 - The market of caregivers is today unregulated, expensive and undependable.

Steps taken to control the Population Growth in the country On-Going Interventions

- **Quality care in Family Planning** services by establishing Quality Assurance Committees at state and district levels.
- Improving **contraceptives supply management** up to peripheral facilities.
- **Demand generation activities** in the form of display of posters, billboards and other audio and video materials in the various facilities.
- **National Family Planning Indemnity Scheme'** (NFPIS) under which clients are insured in the eventualities of deaths, complications and failures following sterilization and the providers/ accredited institutions are indemnified against litigations in those eventualities.
- **Compensation scheme for sterilization acceptors-** under the scheme MoHFW provides compensation for loss of wages to the beneficiary and also to the service provider (& team) for conducting sterilisations.

New Interventions under Family Planning Programme

- Scheme for **Home delivery of contraceptives** by ASHAs at doorstep of beneficiaries.
- Scheme for **ASHAs to ensure spacing in births.**
- Introduction of the new device and methods, which are more **effective** and give boost to **spacing** of births.
- Jansankhya Sthirata Kosh (**National Population Stabilization Fund**) has adopted the following strategies as a population control measure
 - **Prerna Strategy-** to push up the age of marriage of girls and delay in first child and spacing in second child the birth of children in the interest of health of young mothers and infants.
 - **Santushti Strategy:** it invites private sector gynaecologists and vasectomy surgeons to conduct sterilization operations in Public Private Partnership mode.

Way Forward

- The **new population policy** should be such, which cut across sectoral paradigms and address the above issues.
- There should be focus on **young population** (below 35 years), which could have great socio-economic developmental outcomes for the nation in years to come.
 - It includes greater access to education and livelihood opportunities and meeting the health needs of this population, including their reproductive needs.
- The two-pronged approach of **health system strengthening** and **population control** may work in states such as Bihar and UP, but for other states that are near or under replacement fertility, more resources should move into **health system strengthening** and **core health priorities**—non-communicable diseases, drug availability, and human resource deployment etc.
- There is need to focus on **smaller states** as well. E.g. The **Sample Registration System**, which tracks deaths and births in a sample of villages and urban blocks, should also generate data on MMR for **smaller states or union territories (UTs)**. It currently tracks only larger states.
- **A common minimum programme** agreed upon by a multi-stakeholder consensus involving all political parties could be a way forward. It could effectively address misalignment between **central and state efforts**, as well as **delays and derailments** due to regime changes.

6.7. CHILD LABOUR IN INDIA

Why in News?

The continuing presence of child labour in the country reflects the fact that implementation of the laws at the State and district levels has been lacking.

Safeguards and measures taken to combat Child Labour

- **Constitutional Provisions:** Article 24 of the Constitution prohibits employment of children below the age of 14 in factories, mines, and other hazardous employment.
- **National Child Labour Project Scheme (NCLP):** It was started in 1988 to identify and rehabilitate child workers. It seeks to adopt a sequential approach with focus on rehabilitation of children working in hazardous occupations and processes.
- **Pencil Portal:** Platform for Effective Enforcement of No Child Labour is an online portal which connects the Centre to the state government, district and to all project societies to combat the menace of child labour and trafficking.
- **Child Labour (Prohibition and Regulation) Act 2016**
 - The union government enacted the **Child Labour (Prohibition and Regulation) Act in 1986**.
 - The act **prohibited children from being employed in specified hazardous occupations** and at the same time regulated their working condition in other non-hazardous occupations and processes.
 - **In 2016, Child labour (Prohibition and Prevention) Amendment Act was brought.**
 - ✓ It provides for a complete prohibition on the employment of children below 14 years in all occupations and processes and prohibits the employment of adolescents (14-18 years) in hazardous occupations and processes.
 - ✓ Introduces more stringent jail term and fines for offenders: a jail term of six months to two years and a fine upto Rs 50,000.



- **Juvenile Justice (Care and Protection of Children) Act 2015 (the JJ Act):** It includes the working child in the category of children in need of care and protection, without any limitation of age or type of occupation.
 - Section 75 (cruelty to Juvenile) and Section 79 (exploitation of juvenile employee) specifically deal with child labour under children in need of care and protection.
- **ILO Conventions:** India ratified International Labour Organizations Convention (ILO) **no 138** (minimum age for employment) and convention **no 182** (worst forms of child labour), to symbolise its commitment for attainment of **Sustainable Development Goal 8.7** related with curbing of child labour.
- The International Labour Organization (ILO) also launched **the World Day Against Child Labour in 2002** to focus attention on the global extent of child labour and the action and efforts needed to eliminate it.

Why child labour issue still persists?

- **Flaws in Child Labour (Prohibition and Regulation) Amendment Act, 2016:**
 - Concerns have been raised regarding the **exception made for help in family enterprises**. The Parliamentary Standing Committee had stated that the labour ministry was providing a “loophole” through this provision, and that it would be difficult to assess whether children are actually “helping” or are working to supplement family income.
 - It prohibits child labour only in mines, in the production of inflammable substances or explosives and the hazardous processes assigned with it in clause of the Factories Act, 1948. Thus, it actually gives a **legal sanction for the employment of adolescent children in all other sectors**.
 - ✓ Further, even the ones listed as hazardous can be removed not by Parliament but by government authorities at their own discretion.
 - ✓ It is also in conflict with international contracts which often include a clause about the non-employment of anyone below the age of 18.
 - It **does not define the hours of work**; it simply states that children may work after school hours or during vacations.
- **Improper utilization of Funds:** 2016 Act calls for the setting up of a rehabilitation fund and is meant to ensure that the child does not re-enter the vicious cycle of child labour however the rehabilitation amount often does not reach children due to ambiguity in the law on how the fund is to be disbursed.
- **Low conviction rate:** Although the law on child labour provides for stringent punishment for certain crimes, the conviction rate is extremely low. For instance 61 child labourers were rescued in the span of one year in Tamil Nadu, but only nine employers were convicted.
- **Inter-regional differences and continued migration:** Due to a lack of wages in the remote areas of Bihar, Jharkhand and in Naxal affected areas, a large number of workers continuously migrate to big metropolises & other places which include a large number of child labourers who are employed as bonded labourers in factories that manufacture bangles, utensils etc.
- **Unregulated control:** The child labour legislation makes provisions that require establishments to report the employment of adolescents and states that adolescents can work only six hours a day and must have and one day off per week. However, there are enough instances where the employment of children and adolescents goes unregulated due to existing loopholes in the law.
- The main causes of child labour in India are **poverty, illiteracy, unemployment and low income**. In a situation where more than 40% people suffer from poverty, children often work to feed themselves and their parents during their childhood. In India, a large section of the population is uneducated and where making money is considered more important than obtaining an education. This ultimately leads to the encouragement of child labour.

Way forward

- **Need to educate**
 - Incentives such as access to flexible school hours, evening school hours and the provision of counseling to ensure that adolescents are aware of the industries that are safe to work in.
 - A strong community-based child protection mechanism is needed for regular monitoring of children at the community level and to ensure that they go to schools regularly.
 - **Right to Education Act 2009**, along with **Article 21A of the Constitution of India** recognizing education as a fundamental right, constitutes a timely opportunity to use education to combat child labour in India.

- **Role of family and awareness**
 - In case the child was forced to work due to the economic condition of the family, adequate efforts should be made to provide all benefits to the family under relevant developmental and social security schemes.
 - Awareness-building programmes with parents and communities should be conducted, through which people at large can understand the ill effects of child labour.
- **Stronger law and its implementation**
 - There must be convergence between different departments. Further, institutions of local governance like Panchayati Raj institutions should be sensitized and empowered towards prevention of child labour in their jurisdictions, as well as rehabilitation of former child labourers
 - Increased investment in financial and human resources for proper implementation of the child labour law is needed.
- The private sector has a very important role to play in protecting children from harmful work, in improving working conditions and removing hazards from the environment of young workers.

6.8. IS INDIA READY TO MEET SUSTAINABLE DEVELOPMENT GOALS?

Why in news?

Recently, the Comptroller and Auditor General of India (CAG) highlighted several concerns regarding the India's preparedness to achieve the UN Sustainable Development Goals (SDG).

Background

- The **2030 Agenda** for Sustainable Development consists of 17 Sustainable Development Goals (SDGs) and 169 associated targets.
 - Each Government has to set its **own national targets** based on national circumstances and decide how global targets would be incorporated into national planning processes, policies and strategies.
 - India has also taken various measures towards the same-

Institutional Framework	<ul style="list-style-type: none"> • NITI Aayog mandated with task of coordinating and overseeing the implementation of SDGs. • MoSPI responsible for preparation of National Indicator Framework. • States/Union Territories (UTs) involved in mainstreaming activities.
Dovetailing SDGs with Development Agenda	<ul style="list-style-type: none"> • NITI Aayog undertook exercise for mapping all 17 Goals and 169 Targets with Ministries, Central Schemes, related interventions. • NITI Aayog prepared a 'Three Year Action Agenda' covering the period 2017-20 and 'Strategy for New India@75' covering the period upto 2022-23. • States at various stages of preparation of their Vision and Strategy documents and mapping of Goals/Targets.
Stakeholder Awareness and Involvement	<ul style="list-style-type: none"> • Workshops/consultations at Regional, National and State levels organised for exchange of ideas/experiences and raising awareness on SDGs amongst stakeholders. • Indian Parliament launched a 'Speaker's Research Initiative'² to provide SDGs related insights to the Members of Parliament.
Policy Coherence	<ul style="list-style-type: none"> • Institutional arrangements exist for both horizontal and vertical convergence. • Launching of 'Aspirational District Programme' in 112 backward districts across 27 States which is based "on the core principle of improvement in SDGs in backward districts of India for ensuring inclusive growth". These cover areas such as health & nutrition, education, financial inclusion, agriculture & water management and skill development.
Mobilisation of Resources	<ul style="list-style-type: none"> • Government of India is implementing a nationwide Goods and Services Tax reform to optimize domestic resource mobilization. • Fiscal Responsibility and Budget Management being implemented for ensuring predictable and sustainable budgeting. • Expenditure reforms implemented.
Monitoring and Reporting	<ul style="list-style-type: none"> • Voluntary National Review³ (VNR) Report presented in the UN (July 2017). • National Indicator Framework (NIF) and Baseline data published in November 2018 and March 2019 respectively for monitoring implementation of SDGs. • High Level Steering Committee constituted (January 2019) to periodically review and refine NIF. • A 'SDG India Index: Baseline Report 2018' based on 62 Priority Indicators along with dashboard released (December 2018) for monitoring the progress of SDGs at the national and sub-national level. • Development of indices such as Composite Water Management Index, Health Outcomes Index and School Education Quality Index.

- The CAG had taken the audit up with the overall objective of ascertaining '**Preparedness of the Government for the Implementation of SDGs**' covering aspects such as
 - Extent to which the 2030 Agenda has been adapted in the national context;
 - Identification and mobilisation of resources and capacities,
 - Creation of mechanism for monitoring and reporting progress.
- To assess preparedness at the State level, **seven states** were selected- Assam, Chhattisgarh, Haryana, Kerala, Maharashtra, Uttar Pradesh and West Bengal. In addition, '**Goal 3- Good Health and Well-Being**' was selected for detailed examination of preparedness.

Key Observations of the Audit

- Both at the Central and State levels, the exercise of formulating policy documents in the context of SDGs was still ongoing.
- A roadmap with defined milestones aligned with UN SDG Targets for 2020, 2025, 2030 was yet to be prepared. Greater efforts also appeared necessary for localising and publicising the SDGs to ensure inclusiveness.
- With respect to resource mobilisation for achieving the SDG targets, a financial gap analysis had not yet been undertaken.
- Further, integration of SDGs into the accounting and budgeting framework was still to be done at the Centre and most of the States.
- With respect to Monitoring and Reporting, the delay in publication of the NIF had held back several key tasks such as development of indicators and monitoring frameworks in the States and identification of baseline data and milestones.

Key Learning as per the NITI Aayog Report on implementation of SDGs in India -

- **On following 'whole-of-government' approach-** Preparation of **vision document** aligned to the SDGs enabled sub-national governments to embed the 'whole-of-government' approach in planning.
 - Extending this approach beyond planning to budgeting, implementation, and monitoring can result in substantial benefits in progress on the SDGs.
- **On monitoring-** Preparation of the **National Indicator Framework** is an important exercise to arrive at a system, which not only tracks progress but also helps to identify data gaps.
 - Efforts are also required to harness and unify development data to ensure that decisions made are based on comprehensive data and are thereby effective.
- **On budgeting-** Mapping budgetary priorities in relation to the SDGs does not automatically lead to more coherent management or reorientation of resources as accounting and budgeting frameworks need to be aligned to integrate SDGs.
 - An assessment of requirement and availability of financial resources as for implementing SDGs is required both at Central and State levels.
- **On communication, awareness generation and advocacy-** It is critical to engage in **continuous advocacy** to sustain momentum of localising the SDGs.
 - It is important that initiatives for enhancing public awareness and sensitisation about SDGs are stepped up. Also, **behaviour change communication** should be promoted so that society adopts practices that promote sustainable development.
- **On aligning Local Plans with SDGs-** Empowering local self-governance institutions is the single most effective strategy for ensuring community ownership and integration of SDGs at grassroots level, as its members are directly elected by the people, and are mandated to undertake planning exercises in consultation with the community
- **On capacity development-** The training on SDGs should go beyond the 17 goals and targets and should be viewed from the perspective of fundamental skills and competencies that are required to deliver the goals by 2030.
- **On reaching the Furthest Behind First-** The agenda of **Leave No One Behind** requires a robust system for identifying the marginalised and ensuring that they are able to exercise their rights and benefit from their entitlements.
- **On partnerships-** Here the focus should be to create an environment where public and private partners pool in their resources and competencies to achieve common objectives.

Some success stories from the states

- **Assam-** The Government has launched '**District Multi-sectoral Results Based Nutrition Plan**' in partnership with the World Bank to improve child, maternal and adolescent girls' health. It is a prime example of convergence of various departments for a common goal.
- **Haryana-** The Government has mapped all the schemes with relevant SDGs and formulated SDG based State Budget for the financial years 2018-19 and 2019-20.

7. SCIENCE AND TECHNOLOGY

7.1. ARTIFICIAL INTELLIGENCE

Why in News?

Government inked pact with IBM India for undertaking a pilot study to utilise **Artificial Intelligence (AI)** and weather technology solutions in agriculture.

More about News

- The pilot study will be conducted for the Kharif crop season 2019 in three districts - Bhopal, Rajkot and Nanded - in Madhya Pradesh, Gujarat and Maharashtra, respectively.
- IBM will give solution in the field of agriculture through AI and weather technology at village level/ farm level to **provide weather forecast and soil moisture information on pro bono basis** to help farmers for taking decisions regarding water and crop management for better production and productivity.

About Artificial Intelligence

- It refers to the **ability of machines to perform cognitive tasks** like thinking, perceiving, learning, problem solving and decision making and **execute tasks in real time situations** without constant supervision.
- It can be **deployed to take over a variety of tasks, enable connectivity and enhance productivity.**
- The field of artificial intelligence is essentially when machines can **do tasks that typically require human intelligence.**
- It encompasses **machine learning**, where machines can learn by experience and acquire skills without human involvement.
- A NITI Aayog paper highlights the **potential for India to become an AI 'garage',** or solutions provider, for 40% of the world.

Artificial intelligence in Agriculture

- It is estimated that AI and connected farm services can **impact 70 million Indian farmers by 2020**, thereby adding US\$ 9 billion to farmer incomes.
- In 2017, **the global AI in agriculture market size was US\$ 240 million**, and is expected to reach US\$ 1.1 billion by 2025.
- Major factors driving the growth of the AI in agriculture market include:**
 - the growing demand for agricultural production owing to the increasing population
 - rising adoption of information management systems and new advanced technologies for improving crop productivity
 - increasing crop productivity by implementing deep learning techniques
 - growing initiatives by worldwide governments supporting the adoption of modern agricultural techniques.

Application of AI: AI has the potential to **overcome the physical limitations of capital and labour** and open up new sources of value and growth. It has the potential to **drive growth by enabling**

- intelligent automation** i.e. ability to automate complex physical world tasks. For e.g.: A recent study found that a Google neural network correctly identified cancerous skin lesions more often than expert dermatologists did.
- Innovation diffusion** i.e. propelling innovations through the economy.

Application of Artificial Intelligence in the focus sectors



HEALTHCARE

- Early Detection
- Access to quality health Care
- Making Healthcare more affordable
- Training Research



AGRICULTURE

- Enhancing Farmer's Income
- Increasing Farm Productivity
- Reducing the wastage
- Weather forecasting
- Soil health Monitoring and Restoration
- Precision Farming



EDUCATION

- Improved access and quality of Education.



SMART CITIES and INFRASTRUCTURE

- Urban Planning.
- Effective solutions for crowd management.
- Develop resilience against Cyber Attacks.



SMART MOBILITY and TRANSPORTATION

- Smarter and safer modes of transportation.
- Improve traffic and congestion problem.
- Reduce Traffic Deaths.
- Optimizing the Parking

- **Enablers for AI promotion**
 - Positive social attitudes towards machines and trust in autonomous systems
 - Data literacy to create awareness about value of their own data
 - An ecosystem (digital data marketplaces, exchanges, infrastructure) which encourages free flow of data & information
 - Enabling policy & regulatory framework
 - Skill sets available with workforce
 - Establishment of standards for data exchange and safety
 - Synergy between government, civil society, industry, academia and R&D.
 - Huge fall in cost of storing data

How AI can help improve in Governance in India?

- **Law Enforcement:** AI technologies can be used by law enforcement which include facial recognition, speech recognition, drones, robo cops, autonomous patrol cars, and predictive analytics.
- **Defense:** AI can be predominantly used for intelligence, surveillance and reconnaissance, robot soldiers, cyber defense, risk terrain analysis, and intelligent weapons systems.
- **Discharge of Government Functions:** Govt has already started to leverage AI to help deliver government services to the citizenry like enhancing of the citizen-government interface, Categorisation and arrangement of documents etc.
- **Use of Artificial intelligence (AI) in welfare schemes:** It can be used effectively to reduce poverty, improve the lives of farmers and make the lives of the differently abled simpler.

Implementational Challenges of AI in India

- **Lack of Trained professionals:** Only around 4% of Indian AI professionals are trained in emerging technologies such as deep learning.
- **Lack of awareness:** There still exists a lack of familiarity with high tech machine learning solutions in farms across most parts of the world.
- **Data related issues:** Lack of standards, perceived poor transparency around data use and ownership, and the difficulty of gathering and sharing data has lead to a situation where AI algorithm developers are still starved for data.
- **Lack of Funding:** Obtaining funding for developing AI driven solutions is a challenge that any emerging economy faces in the present day.
- **Lack of enabling infrastructure:** In India, infrastructural pre-requisites for the successful and cohesive implementation of AI driven solutions have not yet been developed.
- **Privacy and Security:** Privacy and security of data collected and used is a concern that cuts across all uses of artificial intelligence. AI could also have grave impacts on the freedom of expression as it is applicable in a vast number of situations that impact how individuals access information online.
- Inadequate availability of AI expertise, manpower and skilling opportunities
- **High resource cost** for adopting AI in business processes
- **Unattractive Intellectual Property regime** to incentivise research and adoption of AI
- Absence of collaborative effort between various stakeholders

Way forward

- **Strong data infrastructure:** The data infrastructure on the farm will need to become more robust before large scale agricultural AI deployment can be successful.
- **Improve capacity and enhanced understanding of emerging technologies:** Across sectors, there is a need to grow capacity within the government for effective implementation of AI driven solutions.
- **Open source platform:** An open source platform would make the solutions more affordable, resulting in rapid adoption and higher penetration among the farmers.
- **Incentives to farmers:** Government needs to step in by giving incentives to farm to adopt AI and making it more affordable and attractive for farmers.
- **Ensure adequate government funding and investment in R&D:** There is a need for significant financial commitment from governments towards research and development surrounding AI. Initiatives CoE in AI should be increased to improve more research in the field of AI.
- **Collaboration between stakeholders:** Industry, Government and all other stakeholders need to come together for viable solutions to agriculture.
- **Allocation of Resources in STEM** (Science, Technology, Engineering and Mathematics) need to be increased.

Steps taken for AI

- **Center of Excellence in Artificial Intelligence (CoE in AI)** by National Informatics Centre (NIC) which is a platform for innovative new solutions in AI space, a gateway to test and develop solutions for projects undertaken by NIC at central and state level.
- An Inter-Ministerial **National Artificial Intelligence Mission (N-AIM)** has been proposed to be established with an allocation of Rs1,200 crore for a period of five years. **Key features of N-AIM include:**
 - Fund establishment of a network of **alliances** among Academia Services Industry, Product Industry, Start-ups and Government Ministries;
 - Establishing & administering **National AI Challenge funds**;
 - Increasing **awareness** of AI through AI-yatras;
 - **Coordination of projects of national importance:** to accelerate development and commercialisation of AI based products and technology through PPP models and start-ups
 - **Establishing Centres of Excellence** for promoting interdisciplinary research
 - Setting up of a **generic AI test bed** for verification & validation of AI based products
 - Funding an inter-disciplinary & dedicated large **data integration center**.

2-Tier Research Architecture proposed by NITI Aayog to address India's AI Aspirations

Centre of Research Excellence (CORE)	International Centers of Transformational AI (ICTAI)
It is focused on developing better understanding of existing core research and pushing technology frontiers through creation of new knowledge .	It is entrusted with a mandate of developing and deploying application-based research . Private sector collaboration is envisioned to be a key aspect of ICTAIs.

- A Statement of Intent has been signed between **NITI Ayog and IBM to develop Precision Agriculture** using Artificial Intelligence (AI) in Aspirational Districts.
- Government has begun the use of Artificial Intelligence on pilot basis for **crop cutting and yield estimation** under scheme **Pradhan Mantri Fasal Bima Yojana**.
- **Microsoft India is using AI sensors** to make farming and healthcare smart.

7.2. BIG DATA

Why in News?

Recently IIT-Delhi researchers used Big Data to detect diseases and automate pathology process.

About Big Data

- **Big data** is a term applied to data sets whose size or type is beyond the ability of traditional relational databases to capture, manage and process the data with low latency.
- **Big data analytics** is the use of advanced analytic techniques against very large, diverse data sets that include structured, semi-structured and unstructured data, from different sources, and in different sizes from terabytes to zettabytes.

Some key technologies involved in Big Data Analytics

- **Machine Learning:** It is a specific subset of AI that trains a machine how to learn, makes it possible to quickly and automatically produce models that can analyze bigger, more complex data and deliver faster, more accurate results – even on a very large scale.
- **Data mining:** Data mining technology helps to examine large amounts of data to discover patterns in the data – and this information can be used for further analysis to help answer complex business questions.
- **Predictive analytics:** It uses data, statistical algorithms and machine-learning techniques to identify the likelihood of future outcomes based on historical data.

Benefits of Big Data

- **Improves decision making:** Big data allows businesses to analyze information immediately. Instead of focusing only on profit and loss, it integrates a wide range of insights, taking into account each and every factor that could possibly influence the business.
- **Protects company and client information:** Since big data can immediately detect irregularities in any business network, it can help evade cybercrimes and enhance the overall security of the network.
- **Enables effective marketing:** Big data keeps us informed about marketing trends and it also ensures that right marketing method is picked up which is best suited to needs and objectives. It helps providing businesses with better insights about their clients.
- **Facilitates cost and time reduction:** Big data helps cut down costs by streamlining processes and improving operational efficiency. It can be used to identify trends, patterns, and probabilities in incurring costs.

- **Better product designing:** With better information and analysis of the data, it helps to design products in a better way.

Applications of Big Data in various sectors

- **Banking:** With large amounts of information streaming in from countless sources, banks are faced with finding new and innovative ways to manage big data. Big data brings big insights, but it also requires financial institutions to stay one step ahead of the game with advanced analytics.
- **Education:** By analyzing big data, educators can identify at-risk students, make sure students are making adequate progress, and can implement a better system for evaluation and support of teachers and principals.
- **Government:** When government agencies are able to harness and apply analytics to their big data, they gain significant ground when it comes to managing utilities, running agencies, dealing with traffic congestion or preventing crime.
 - Government launched a project called **Project insight** in 2017, to catch tax evaders. The project leveraged data mining techniques and analysed the data to achieve its objective of a corruption-free country.
 - Andhra Pradesh is employing big data and analytics to launch a real-time monitoring system to monitor the performance of each department in its government.
 - Odisha government is banking on data analytics technology to ensure that the least served areas can benefit from Government Welfare schemes.
- **Health Care:** When big data is managed effectively, health care providers can uncover hidden insights that improve patient care.
- **Manufacturing:** Big data can provide, manufacturers can boost quality and output while minimizing waste – processes that are key in today’s highly competitive market.
- **Agriculture:** Sensor data to optimise crop efficiency can be used. This is used to measure how plants react to changes in various conditions by planting test crops and running simulations.



Potential of Big Data

- **Global Big Data** market is growing rapidly and is expected to reach **\$118.52 billion by 2022**.
- **Analytics, data science and big data industry in India** is currently estimated to be Rs 17,615 crore annually (FY18) in revenues, growing at a healthy rate of 33.5% CAGR. It is estimated to become a Rs 1,30,000 crore industry in India by 2025.
- This is largely because of **the emergence of new technologies** and jobs getting repositioned in the IT sector because of it.

Challenges

- **Keeping Pace with growing amount of data:** Although new technologies have been developed for data storage, data volumes are doubling in size about every two years. Organizations still struggle to keep pace with their data and find ways to effectively store it.
- **Lack of data Scientists:** India reportedly has fewer than 10% of data scientists available globally while the US has over 40% skilled professionals in the big data and analytics domain.
- **Privacy issue:** Privacy has become a big concern when it comes to the use of customer data. Big Data analytics have the potential to reveal sensitive personal information by uncovering hidden connections between pieces of data that seems unrelated.

- **Security issues due to outsourcing:** Outsourcing of data analysis only increases the security risks as information like customers' earnings, mortgages, savings and insurance policies are required to be shared for the purpose.
- **Availability of quality data:** One of the major challenges in the sector to enable the use of Big Data is the availability of quality data. Most of the data in the development sector is yet to be digitised.
- **Technological issue:** Big data is often defined by volume, velocity and variety, may result in an incomplete and biased data set. Therefore, while the quantity of data should not be regulated, what needs to be controlled is the quality of data and the method of analysis. Some of the key technologies for mastering this is still missing.
- **Ethics of big data:** It comes into role as huge amount of private data is available and how and where it should be put to use raises the question.
- **Need for synchronization across data sources:** As data sets become more diverse, there is a need to incorporate them into an analytical platform. If this is ignored, it can create gaps and lead to wrong insights and messages.

Way Forward

- **Wider acceptance of Big data:** All the departments in government as well as private sector should be aware about the use of big data.
- **Cyber security:** Policies should be drawn to strengthen the cyber security framework for making the data safe.
- **Privacy:** Data Management should address the ethical issues regarding big data analytics and formulate a policy regarding data privacy. Guidelines formulated by Justice BN Srikrishna committee on data protection can be followed in this regard (refer infographics).
- **Increase R&D and funding to master technologies:** Research and other institution need to develop R&D to learn about all the important technologies in order to better utilize the applications of big data.
- **Establish data centers:** Government needs to set up data center for effective collection, segregation and analyzing.
- **Training:** Data scientists needs to be trained to learn on handling the big data.

KEY RECOMMENDATIONS

- Personal data shall be processed only for purposes that are clear, specific and lawful
- Individuals will have the right to withdraw consent
- All firms and agencies will have to appoint data protection officers
- Firms will have to ensure at least one copy of personal data to be stored in India
- They will also act as point of contact for the individuals for raising grievances
- 'Critical' personal data shall only be processed in a server or data centre located in India
- Exemptions have been provided for processing of personal data for journalistic purpose, or for a purely personal or domestic purpose
- Penalties range from 2-4% of a company's worldwide turnover, or fines between ₹5 crore and ₹15 crore, whichever is higher
- The Centre shall notify Data Protection Authority of India
- A data protection fund and a data protection awareness fund to be set up through proceeds from the penalties and the fines

Existing Acts such as Right to Information, Aadhaar and Information Technology will have to be amended

International Efforts

- **Sustainable Development Goals:** The 2030 Agenda explicitly calls for a data revolution for sustainable development
- **Cape Town Global Action Plan for Sustainable Development Data:** It calls for a commitment by governments, policy leaders, and the international community to undertake key actions under **six strategic areas** of data for sustainable development:
 - Its dissemination and use.
 - Coordination and strategic leadership.
 - Innovation and modernization of national statistical systems.
 - Strengthening of basic statistical activities and programmes.
 - Multi-stakeholder partnerships.
 - Mobilizing resources and coordinating efforts for capacity building.

Initiatives in India

- The **'big data management policy'** introduced by the Comptroller and Auditor General of India (CAG) paved the way for Data Analytics Centre (first of its kind in the country) and aims to exploit the data-rich environment in the union and state governments to build capacity in the Indian audit and accounts department.
- NITI Aayog is planning to develop **National Data and Analytics Platform** in collaboration with private tech players.
- Government of India is also working towards an **Open Data Policy**, to encourage sharing information between departments and across ministries.

- **National Data Sharing and Accessibility Policy (NDSAP), 2012** aims to provide an enabling provision and platform for proactive and open access to the data generated by various Government of India entities.
- **Open Government Data (OGD) Platform India** - data.gov.in - intends to increase transparency in the functioning of Government and also open avenues for many more innovative uses of Government Data to give different perspective.
- National Association for Software and Services Company (NASSCOM) has proposed a curriculum upgradation to include big data and data analytics in engineering colleges.

7.3. CRYPTOCURRENCY

Why in News?

Recently, the **'Report of the Committee to propose specific actions to be taken in relation to Virtual Currencies'** was submitted to the Ministry of Finance.

Background

- The Government had constituted an **Inter-Ministerial Committee** to study the issues related to virtual currencies and propose specific action to be taken in this matter.
- The committee has submitted its report along with Draft **'Banning of Cryptocurrency & Regulation of Official Digital Currency Bill, 2019'**.

Draft 'Banning of Cryptocurrency & Regulation of Official Digital Currency Bill, 2019'

- It **defines various terms associated with the subject** such as Cryptocurrency, Digital Rupee, Distributed Ledger Technology etc.
- **General Prohibitions**- e.g. No person shall mine, generate, hold, sell, deal in, issue, transfer, dispose of or use Cryptocurrency in the territory of India.
- **Regulation of Digital Rupee and Foreign Digital Currency**- may be done by the Central Government in consultation with the RBI.
- It **defines the offenses and penalties** relating to the bill.
- **Powers of the Investigation Authority**- which shall be defined by the Central Government.

About Cryptocurrency

- It is an **intangible form of non-legal tender** which can be used in place for legal tender and existed in electronic/ digital form used between online/Cryptocurrency members community. Virtual currencies are a subset of cryptocurrencies.
- The first cryptocurrency to capture the public imagination was Bitcoin, which was launched in 2009 by an individual or group known under the pseudonym Satoshi Nakamoto.
- Other than Bitcoin, several other cryptocurrencies have emerged including Ethereum, Ripple and Cardano.
- As of date, there are around 2116 cryptocurrencies, with a market capitalisation of USD 119.46 billion.

Distributed Ledger Technology: Distributed ledgers use independent computers (referred to as nodes) to record, share and synchronize transactions in their respective electronic ledgers (instead of keeping data centralized as in a traditional ledger). Blockchain is a type of a distributed ledger.

Blockchain

- It is the **electronic ledger which maintains record of all the transactions** from the time the first unit of the cryptocurrency – the seed - was mined.
- It can **validate the integrity of all the units of currency at any given point of time.**
- It is a series of data linked together. Every single transaction is linked to the chain using cryptographic principles in batches, making blocks.
 - The blocks are connected to each other and have unique identifier codes (called hashes) that connect them to the previous and the subsequent blocks.
 - This forms a blockchain, usually in the form of a continuous ledger of transactions.
 - It isn't owned by any one individual.
 - The series is managed and stored across several computer systems.
 - Each ledger is shared, copied and stored on every computer connected in the system.

Why is it important?

- Blockchain technology has been the **backbone of bitcoin and other cryptocurrencies.**
- **The transparency and the security** offered by the technology are some of the main reasons why cryptocurrency has become so popular.
- This technology is increasingly being **adopted in the retail, manufacturing and banking sectors** due to its benefits, like eliminating middlemen, providing data security, reducing corruption and improving the speed of service delivery.
- It can be particularly useful in **maintaining government data related to public transactions.**
 - For instance, if all land records are moved on a blockchain, with each subsequent buying and selling of a property being recorded as a block that can be publicly accessed, corruption can be arrested and governing will be made so much easier.

Cryptocurrency in India

- The Indian government **does not currently regulate cryptocurrency exchanges**.
- The Finance Minister in his 2017 budget speech, stated that “there is a real and heightened risk of investment bubble of the type seen in Ponzi schemes”, referring to cryptocurrencies as the Ponzi scheme.
- In India, a self-regulatory body known as the **Digital Assets and Blockchain Foundation India**, has been set up to propagate best practices of Digital Asset businesses.
- The **Reserve Bank of India has issued warnings to the public about the risks associated with virtual currencies** and has suggested it is examining virtual currencies under India’s existing legal framework.

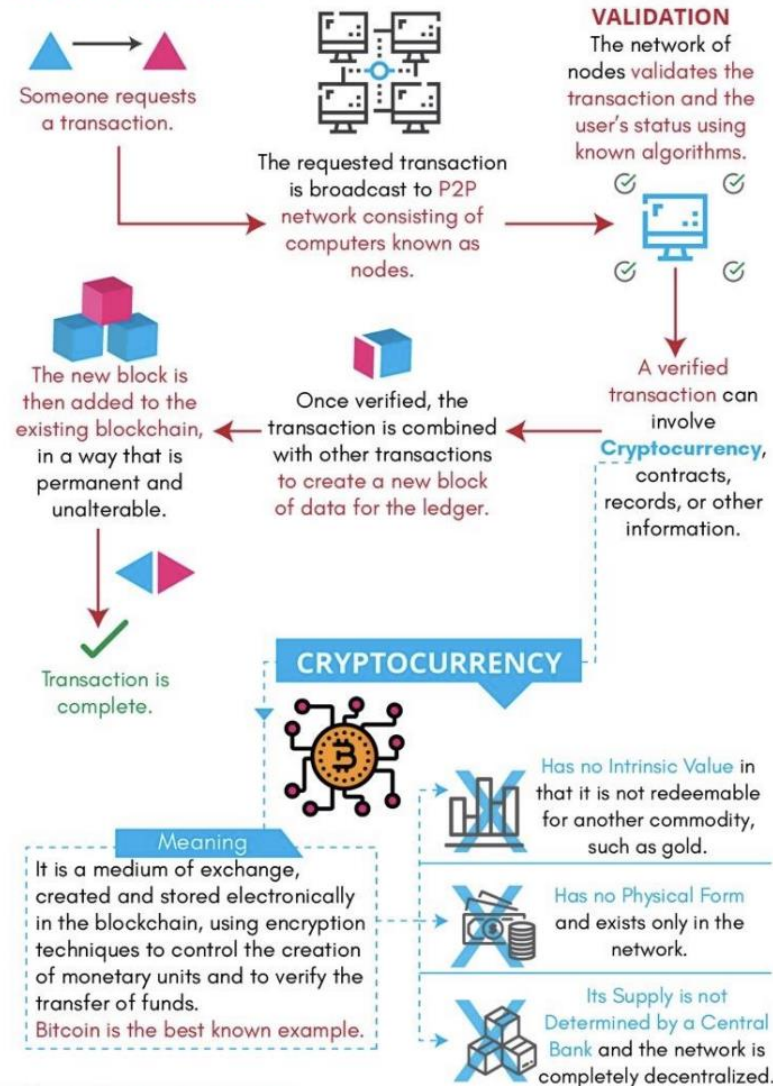
Benefits associated with cryptocurrency

- **Privacy Protection:** The use of pseudonyms conceals the identities, information and details of the parties to the transaction.
- **Cost-effectiveness:** Electronic transactions attract fees and charges, which is on the higher side when the transactions are transnational and undergo currency conversion, or attract processing fee levied by the banks, third party clearing houses or gateways. Cryptocurrencies solve this problem, as they have single valuation globally, and the transaction fee is extremely low, being as low as 1% of the transaction amount.
- **Lower Entry Barriers:** Cryptocurrencies lower the entry barriers, they are free to join, high on usability and the users do not require any disclosure or proof for income, address or identity.
- **Alternative to Banking Systems and Fiat Currencies:** Governments have a tight control and regulation over banking systems, international money transfers and their national currencies or monetary policies. Cryptocurrencies offer the user a reliable and secure means of exchange of money outside the direct control of national or private banking systems.
- **Open Source Methodology and Public Participation:** They have their own consensus based decision making, built-in quality control and self-policing mechanisms for building frameworks, practices, protocols and processes.
- **Immunity to Government led Financial Retribution:** For citizens in repressive countries, where governments can easily freeze or seize the bank accounts, cryptocurrencies are immune to any such seizure by the state.

Issues associated with cryptocurrency

- **Risks associated with Distributed Ledger Technology:** Current versions of DLT, which are permissionless, have **limited transaction speed**. This also makes it difficult to **scale** further. If DLT is to be introduced at a

How It Works:



large scale into the financial system, different versions of DLT systems need to be **interoperable** with each other.

- **Lack of traceability:** Crypto-assets can be stored and transferred using any device connected to the Internet. If there are no centralized platforms, persons transacting in crypto-assets may do so purely on a peer-to-peer level without any Know Your Customer (KYC) being followed.
- **Highly Volatile:** Virtual currencies follow a volatile track of ups and downs which further introduce instability in the market and economy.
- **Uncertainty over Consumer Protection and Dispute Settlement Mechanisms:** Cryptocurrencies are decentralised, that means, there is no single authority for mediation or dispute redressal. The miners are not responsible for any arbitration of disputes between the parties. The transactions are also irreversible.
- **Absence of a well-defined legal framework:** Most countries lack a proper legal framework to control the value and flow of virtual currencies inside as well as in and out of the country which further creates hurdles to govern over a decentralized currency.
- **Taxation:** The matter of taxation is one of the main concern regarding cryptocurrencies. Due to their pseudo anonymity if used correctly, they can easily be employed for the purpose of tax evasion by means of hiding assets.
- **Lack of safety:** The cryptocurrency system is liable to malware attacks, hacking or loss of countersign.
- **Money laundering risk:** A ban on cryptocurrency can result in making the entire market for crypto-assets an underground market where trading happens either using cash or other untraceable consideration.
- **Acceptance issues:** Some individuals don't acknowledge it as cash and resist in accepting crypto currency as a payment.

Way forward

- **Recommendations of the committee on adoption of cryptocurrencies**
 - All private cryptocurrencies, except any cryptocurrency, which may be issued by the government, be banned in India.
 - A specific Group may be constituted by the Department of Economic Affairs, with participation from RBI, MeitY and DFS for examining and developing an appropriate model of digital currency in India.
 - When the a **Central Bank Digital Currency** is notified, the Reserve Bank should be the appropriate regulator.
 - **Department of Economic Affairs** should identify uses of Distributed Ledger Technology (DLT) and take necessary measures to facilitate the use of DLT in the entire financial field.
- Some more steps can be taken in this regard:
 - Upgrading the technology platforms to be secure against fraud and data leak.
 - Setting up some kind of a global oversight to guard against misuse of the new currency by anti-social elements, terrorists and enemy countries.
 - Educating the users and greater interface with the tax authorities for introducing these currencies in future.
 - Promoting stability in the sector.

7.4. GAGANYAAN

Why in News?

Recently, **Gaganyaan National Advisory Council** has been created with members from different institutions and industries.

Background

- An Indian manned mission to space was **first mooted in 2004**.
- The Gaganyaan programme, an indigenous mission that would take Indian astronauts to space, was **announced in 2018**.

About Gaganyaan Advisory Council

- It comprises of multiple senior officials like Secretaries of Department of Space & Department of Science and Technology, Principal Scientific Advisor to PM, Former Chairman of ISRO, Directors of Premier Academic and Research Institutions, Heads of various Indian Industries etc.
- It discusses **overall project status of Gaganyaan**, covering technical details as well as collaboration with various national stake holders.
- It stresses **the need for setting priorities at various National Institutions including Industries to accomplish Gaganyaan**.

- Over the years, the **Indian Space Research Organisation** has developed and tested a number of technologies that are critical to a human space flight. These include a **Space Capsule Recovery Experiment (SRE-2007)**, **Crew module Atmospheric Reentry Experiment (CARE-2014)**, **GSLV Mk-III (2014)**, **Reusable Launch Vehicle- Technology Demonstrator (RLV-TD)**, **Crew Escape System and Pad Abort Test**. ISRO also recently unveiled a space capsule (crew module) and Space suit prototype.
- ISRO has signed a pact with the **Russian firm Glavkosmos** to select and train astronauts for the country's Gaganyaan project.
 - ISRO will receive assistance from the **French space agency CNES**, in terms of expertise various fields including space medicine, astronaut health monitoring, radiation protection and life support.

About Gaganyaan Mission

- It is a **crewed orbital spacecraft** which is expected to carry three people into the space for seven days.
- With this, India could potentially **become the fourth country to send a man to space**, after the erstwhile USSR, the US and China.
- The total programme is **expected to be complete before 2022**.
- ISRO also plans **two unmanned Gaganyaan flights** — by December 2020 and in July 2021 — before undertaking the manned mission by December 2021.
- **GSLV Mk III**, the three-stage heavy lift launch vehicle, will be **used to launch Gaganyaan** as it has the necessary payload capability.
- The spacecraft is expected to be placed in a **low earth orbit of 300-400 km**. Within 16 minutes of taking off, the crew will be in space, where they will **remain for five-seven days**. The return journey is expected to take 36 minutes.
- Gaganyaan would be **smaller in size** than the current Russian Soyuz, Chinese Shenzhou, NASA's planned Orion spacecraft
- While formal agreements are not yet in place, **ISRO will collaborate with the Indian Air Force** and its Institute of Aerospace Medicine, Bengaluru, to train astronauts.
 - The astronauts on the human space mission 'Gaganyaan' will **mostly be pilots**.

How Gaganyaan can prove to be beneficial for India?

- **Enhancement of science and technology levels in the country:** Gaganyaan will source nearly 60 per cent of its equipment from the Indian private sector hence these are investments will spur technological innovation.
 - **For example:** The programme will provide a unique micro-gravity platform in space for conducting experiments and test bed for future technologies.
- **Involvement of multiple agencies :** Gaganyaan Programme will establish a broader framework for collaboration between ISRO, academia, industry, national agencies and other scientific organizations.
- **Contribution to economy:** The programme is expected to give impetus to economic activities within the country in terms of employment generation, human resource development and enhanced industrial capabilities.
- **Inspiring youth:** It will inspire large number of young students to take up science and technology careers for national development.
- **Development of technology for social benefits:** Huge potential for technology spinoffs in areas such as medicine, agriculture, industrial safety, pollution, waste management, water and food resource management etc.
- **Space diplomacy:** It re-establish India's role as a key player in the new space industry hence improving international collaboration and giving space to Space diplomacy.
- **Improvement of industrial growth:** This will allow pooling in of diverse technological and industrial capabilities and enable broader participation in research opportunities and technology development benefiting large number of students and researchers.

Challenges to programme

- **Training of astronauts:** India lacks training facilities for astronauts, though ISRO has demanded for indigenous training centers for its astronauts since early 2000s, no action have been taken yet.
- **Large investments needed:** The cost estimated at Rs 10,000 crore will demand huge investment.

- **Biosciences:** While ISRO has perfected the engineering aspects of the mission, bioscience is a new field for ISRO that requires greater technological knowhow and collaboration and support from other organizations.
 - Creating habitable space ecospheres also requires a host of technologies, including the development of exotic materials and first class recycling systems.
- **Radiation:** In space stations, astronauts receive over ten times the radiation than what people are subjected to on Earth. Radiation exposure may increase the risk of cancer. It can damage the central nervous system.
- **Technological challenges**
 - **Gravity field:** Transitioning from one gravity field to another is tricky. India does not have facilities for such rigorous and focused training, such as centrifuges to experience g-forces and aircraft to simulate zero gravity conditions.
 - **Hostile environment:** Space is hostile. In addition to lack of gravity and danger of radiation, there is no atmosphere. Human blood starts boiling if there is no pressure.
 - ✓ The 'Gaganyaan' has to create an atmosphere like Earth inside a small volume and ensure that adequate supply of oxygen, removal of carbon-dioxide and comfortable temperature and humidity levels are maintained throughout the mission.
- **Upgrading GSLV Mk III:** Gaganyaan needs a large rocket that can lift a heavy capsule. Geo-synchronous Satellite Launch Vehicle (GSLV) Mark III has been designed to inject large satellites into orbit, the launcher will now have to be human rated.
- **Precision in technology:** The reliability of a system has to be as high as to allow a failure rate of only one in 500 launches. For e.g. the spacecraft needs to reenter the atmosphere at a very precise speed and angle, and even the slightest deviation could end in disaster.

Conclusion

The project would bump up the entire space industry, forcing it to meet challenges beyond the low-cost launch of payloads, a sector in which it has already excelled. Besides, certain missions are better performed by humans than by robots. These remain far in the future, but the development of human capabilities in space would prime the industry well in advance. The technical knowledge generated in the process would be of use much later, in ways that may not be obvious today.

7.5. CHANDRAYAAN 2

Why in news?

ISRO recently launched Chandrayaan-2 mission.

Background

- Chandrayaan-2, a completely indigenous mission, is India's **second lunar exploration mission** which the following basic components-
 - **Orbiter-** will observe the lunar surface and relay communication between Earth and Chandrayaan 2's Lander.
 - **Lander (called Vikram)-** designed to execute India's first soft landing on the lunar surface.
 - **Rover (called Pragyan)-** a 6-wheeled, AI-powered vehicle, which will move on the lunar surface and perform on-site chemical analysis.
- **Launcher-** It was launched by Geosynchronous Satellite Launch Vehicle GSLV MkIII-M1. It is India's most powerful launcher to date, and has been completely designed and fabricated from within the country.

Related News About Chandrayan-1

- Chandrayan-1 was launched by India in October, 2008 using PSLV-C11.
- **Primary Objective:** To prepare a three-dimensional atlas of both near and far side of the moon and chemical, mineralogical and photo-geological mapping of moon.
- **Findings of Chandrayan-1**
 - **Detection of Water** – Major finding was the detection of Water (H₂O) and Hydroxyl (OH) on the surface of the moon. The data revealed its presence in abundance around the polar region.
 - **Magma Ocean Hypothesis** – It confirmed the Ocean Magma Hypothesis i.e. the moon was once completely in molten state.
 - **New Spinel-rich Rock** – Data from Chandrayaan-1 have led to detection of new spinel-rich rock type on lunar far-side.
 - **X-Ray signals detected**– It detected x-ray signals during weak solar flares thus indicating presence of magnesium, aluminium, silicon and calcium on lunar surface.

- **Some notable features of Chandrayaan 2 Mission-**
 - 1st space mission to conduct a soft landing on the Moon's south polar region.
 - 1st Indian expedition to attempt a soft landing on the lunar surface with home-grown technology.
 - 1st Indian mission to explore the lunar terrain with home-grown technology.
 - 4th country ever to soft land on the lunar surface after the United States, the U.S.S.R. and China.
- **Primary Objective:** To demonstrate the ability to soft-land on the lunar surface and operate a robotic rover on the surface. It seeks to
 - foster a new age of discovery,
 - increase our understanding of space,
 - stimulate the advancement of technology,
 - promote global alliances,
 - inspire a future generation of explorers and scientists.

Scientific Objectives of Chandrayaan 2

- Moon provides the **best linkage to Earth's early history.**
 - It offers an undisturbed historical record of the inner Solar system environment.
 - Though there are a few mature models, the origin of Moon still needs further explanations.
 - It will conduct detailed topographical studies, comprehensive mineralogical analyses, and a host of other experiments on the lunar surface.
- Evidence for water molecules discovered by Chandrayaan-1, requires further studies on the extent of water molecule distribution on the Moon.
- It will also study new rock types with unique chemical composition.

Mission Payloads

Orbiter payloads-

- Terrain Mapping Camera-2 (TMC-2),
- Chandrayaan-2 Large Area Soft X-ray Spectrometer (CLASS),
- Solar X-ray monitor (XSM),
- Orbiter High Resolution camera (OHRC)
- Dual Frequency L and S band Synthetic Aperture Radar (DFSAR),
- Imaging IR Spectrometer (IIRS),
- Chandrayaan-2 Atmospheric Compositional Explorer 2 (ChACE-2),
- Dual Frequency Radio Science (DFRS) experiment.

Vikram payloads

- Radio Anatomy of Moon Bound Hypersensitive Ionosphere and Atmosphere (RAMBHA),
- Chandra's Surface Thermo-physical Experiment (ChaSTE),
- Instrument for Lunar Seismic Activity (ILSA)

Pragyan payloads

- Alpha Particle Induced X-ray Spectroscope (APXS),
- Laser induced Breakdown Spectroscope (LIBS)

Passive Experiment- Laser Retroreflector array (LRA)

Why explore the Lunar South Pole?

- The lunar surface area remains in shadow, which is much larger than that at the North Pole. There is a possibility of the presence of water in permanently shadowed areas around it.
- In addition, South Pole region has craters that are cold traps and contain a fossil record of the early Solar System.
- Its regolith has traces of hydrogen, ammonia, methane, sodium, mercury and silver- making it an untapped source of essential resources.
- Its elemental and positional advantages make it a suitable pit stop for future space exploration.

7.6. DNA TECHNOLOGY (USE & APPLICATION) REGULATION BILL

Why in news?

Recently, the **DNA Technology (Use and Application) Regulation Bill, 2019** was introduced in the Lok Sabha, which provides for the regulation of use of DNA technology for establishing the identity of certain persons.

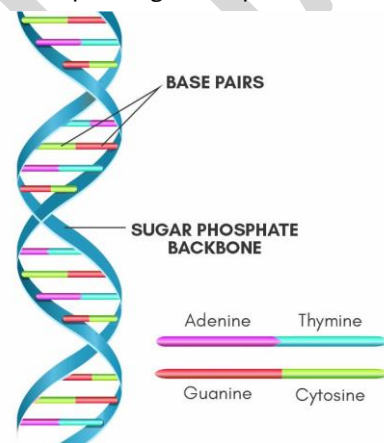
Key Provisions of the Bill-

- **Use of DNA Data:** DNA testing is allowed only in respect of matters listed in the Schedule to the Bill, such as-
 - Offences under the Indian Penal Code, 1860.
 - for civil matters such as paternity suits.
 - for matters related to establishment of individual identity.
- **Collection of DNA:** the investigating authorities may collect bodily substances of persons.

- **Requirement of consent for collection** in certain situations-
 - ✓ For arrested persons- Requirement of **written consent** if the offence carries a punishment of up to **seven years**. If the offence carries more than seven years of imprisonment or death, **consent is not required**.
 - ✓ If the person is a victim, or relative of a missing person, or a minor or disabled person, the authorities are **required to obtain the written consent** of such victim, or relative, or parent or guardian of the minor or disabled person. If consent is not given in these cases, the authorities can approach a Magistrate who may order the taking of bodily substances of such persons.

What is DNA?

- DNA stands for Deoxyribonucleic Acid, a hereditary material in human and almost all the other organisms.
- Most DNA is located in the cell nucleus (called nuclear DNA) but some small amount of DNA can be found in Mitochondria (called mitochondrion DNA).
- It is composed of two chains, which coil around each other to form a double helix carrying the genetic instructions used in the growth.
- It is made up of 23 pairs of chromosomes and provides instructions for building an entire organism and the proteins.
- The information in DNA is stored as a code made up of four chemical bases: adenine (A), guanine (G), cytosine (C), and thymine (T). Human DNA consists of about 3 billion bases, and more than 99 percent of those bases are the same in all people.
- An important property of DNA is that it can replicate, or make copies of itself. Each strand of DNA in the double helix can serve as a pattern for duplicating the sequence of bases.



- **DNA Data Bank- A National DNA Databank and regional DNA Databanks** will store DNA Profiles from **DNA labs** in a specified format. It will have various **categories of indices** such as crime scene index, suspect index etc.
- **Removal of DNA profiles:**
 - The criteria for entry, retention, or removal of the DNA profile will be specified by regulations.
 - However, the Bill provides for removal of the DNA profiles of the following persons:
 - ✓ of a suspect if a police report is filed or court order given,
 - ✓ of an undertrial if a court order is given, and
 - ✓ on written request, for persons who are not a suspect, offender or undertrial, from the crime scene or missing persons' index.
- **Establishment of DNA Regulatory Board:** which will supervise the DNA Data Banks and DNA laboratories.
 - The Secretary, Department of Biotechnology, will be the **ex officio Chairperson** of the Board. The Board will comprise **additional members including:** (i) experts in the field of biological sciences, and (ii) Director General of the National Investigation Agency and the Director of the Central Bureau of Investigation.
 - It will advise governments on all issues related to establishing DNA laboratories or Data Banks and grant accreditation to DNA laboratories. Further, the Board is required to ensure that all information relating to DNA profiles with the Data Banks, laboratories, and other persons **are kept confidential**.
- **Penalties for various offences**, including disclosure of DNA information or using DNA sample without authorization.

Concerns

- **Limited Scope-** of the DNA Profile as it shall only be used for the purpose of identification of the person in criminal cases in accordance with the rules of admissibility of evidence for the purpose of prosecution or defence and **no other purpose such as medical research**.
 - **Does not clearly spell out the consent provisions in sensitive civil matters** such as paternity/ maternity, assisted reproduction, organ transplants, and cases related to immigration.
- **Not fool proof** - Although DNA technology is the best method available to carry out identification, it is still probabilistic in nature. There are chances, however remote, that a wrong match is generated, causing unnecessary harassment to an individual.

- **Does not cover procedures involved in the commercial use of DNA** such as genealogical tests, or medical tests to discover predisposition to disease, or DNA editing.
- **Does not state that DNA information related to civil matters will be stored or not in the Data Bank-** if DNA information related to civil matters is stored in the data bank, it may violate the fundamental right to privacy as laid down by the Supreme Court.
- **Not all DNAs can be matched-** the identity of the person as stated above will be stored under various indices. If the person is not an offender, suspect or under-trial, his/her DNA cannot be matched.
- **No improvement in conviction rates** - Over the last 25 years; most countries have adopted a DNA fingerprinting law and have developed databases for use primarily in criminal investigation, disaster identification and forensic science. However, DNA tests have not led to an improvement in conviction rates in countries where it is already being followed.

Significance

- It creates a framework for the oversight of law enforcement authorities and the regulation of a rapidly expanding industry that is using and misusing DNA technologies.
- It can almost accurately ascertain the identity of a person, establish biological relationships between individuals etc. Thus, useful in investigations of crime, identification of unidentified bodies, or in determining parentage.
- It will provide accreditation for private laboratories and medical facilities, which have been operating in a legal vacuum.

Way Forward

- Extensive reskilling of police forces, fire departments etc, will be required to ensure the sanctity of samples to prevent contamination, forgery, mislabelling, and other errors.
- The banks will also need the highest possible levels of cyber security to prevent breaches.
- The legislation or the rules will need regular reviews simply to stay in tune with fast-paced technological changes.
- There are also grave privacy concerns. Given that DNA is the most intrinsic property of any living entity, the need for privacy safeguards and for carefully defined, purpose-based sample collection is necessary.

7.7. INNOVATION ECOSYSTEM

Why in news?

Recently, India has improved its ranking in the **global innovation index** by five places to 52nd in 2019 from 57th position last year.

Background

- **Innovation** has been defined as commercially successful exploitation of new technologies, ideas or methods by introduction of new products or processes or by improvement of the existing ones.
- The **Global Innovation Index (GII)** has been developed by the World Intellectual Property Organization (WIPO) together with top business universities like Cornell University, INSEAD etc.
 - It measures the **innovative capacity and outputs** of 129 economies, using **80 indicators** ranging from standard measurements such as research and development investments and patent and trademark filings, to mobile-phone app creation and high-tech net exports.
 - This year, India is hosting the launch of the 2019 edition of the GI.
 - This year's GI theme "**Creating Healthy Lives: The Future of Medical Innovation**" is important and relevant for India because we would need a strong focus on medical innovation towards the goal of bringing healthcare and its delivery to all Indians.

India's Performance in Innovation Rankings

- According to the GI, India is the most innovative country in Central and Southern Asia since 2011 and has consistently outperformed on innovation relative to its GDP per capita for nine years in a row.
- India is consistently among the top in the world in innovation drivers such ICT services exports, graduates in science and engineering, the quality of universities and scientific publications, economy-wide investments and also creative goods exports.
- On the quality of its innovation – namely, the quality of scientific publications, of universities and of patent families – India ranks as the 2nd middle-income economy worldwide.
- India also features in the GI ranking on the world's top science and technology clusters, with Bengaluru, Mumbai and New Delhi included among the global top 100 clusters.
- Overall, India's rank has improved from 81st in 2015 to 57th in 2018.

- India has consistently worked on developing its intellectual property system to provide an enabling environment for innovation to flourish at all levels, including grassroots and frugal innovation.

Some of the indicators of India's Position with regards to Innovation

Strengths	Weaknesses
<ul style="list-style-type: none"> • Large graduates in science and engineering • High Gross capital formation • Ease of protecting minority investors • India is the seventh largest patent filing office in the world • High ICT services exports • Large creative goods exports 	<ul style="list-style-type: none"> • India's R&D expenditures have remained stagnant at 0.6-0.7% of GDP over the past two decades. • Slowdown in business sentiment • Inadequate regulatory environment • Issues with education in terms of assessment in reading, mathematics, and science • There is a disconnect between the teaching and research enterprise with research being concentrated in specialized research institutes • Lack of Firms offering formal training • Difficulty in getting credit for research and innovation.

Steps taken towards Innovation ecosystem

- **Various schemes-** such as Ramanujan Fellowship Scheme, the Innovation in Science Pursuit for Inspired Research (**INSPIRE**) Faculty scheme and the Ramalingaswami Re-entry Fellowship, Visiting Advanced Joint Research Faculty Scheme (**VAJRA**), Knowledge Involvement in Research Advancement through Nurturing (**KIRAN**) etc.
- **ATAL Innovation Mission (AIM)-** to act as a platform to promote a network of world-class Innovation hubs and Grand Challenges for India.
 - **Self-Employment and Talent Utilisation (SETU)-** will be a Techno-Financial, Incubation and Facilitation Programme to support all aspects of start-up businesses, and other self-employment activities, particularly in technology-driven areas.
 - **Various Innovation Challenges-** such as for Indian Railways, for Digital India Challenge 2.0, Grand Innovation Challenge by NITI Aayog, Smart India Hackathon etc.
- **The India Innovation Growth Programme (IIGP) 2.0** is a unique tripartite initiative of the Department of Science and Technology (DST), Government of India, Lockheed Martin and Tata Trusts which enables innovators and entrepreneurs through the stages of ideation, innovation and acceleration, to develop technology-based solutions for tomorrow.
- **Innovate India** is a unique platform to display, promote and recognize innovations happening across the nation. It has been launched in collaboration with AIM-NITI Aayog and MyGov. Citizens from all parts of the country are eligible to share the innovation on the platform.
- The **Confederation of Indian Industry (CII)** has been orchestrating initiatives towards creating and fostering innovation among the Indian industry and encouraging entrepreneurial ventures.
- India is also currently engaged in opening WIPO-supported **Technology and Innovation Support Centers (TISCs)** in the country, which will help local innovators and creators research and market their products.
- In collaboration with WIPO, the **first India Innovation Index**, focusing on ranking Indian States was released in 2018.

Challenges faced by Innovation ecosystem

- Indian innovations are **invariably incremental and not disruptive-** They are often 'first to India' and not 'first to the world'. They copy the 'current best practice' but don't create the 'next' practice.
- **Lack of Scalability-** to create **competitive marketable products** with speed, scale and sustainability.
- **Quality of the STEM talent pool-** the gross enrollment ratio at the tertiary education level in India is a low 26% meaning, a vast reserve of potential research talent is lost.
- **Comparison with other countries-** Even though India is within touching distance of breaking into the top-50 innovator countries in the world, it is still quite far from a China, which filed, for instance, 53,345 patent applications with the WIPO in 2018 versus India's 2,013.
- **Skewed results-** India is an odd juxtaposition of stellar successes like the Chandrayaan and digital payments and a large number of unemployable engineering graduates and institutes that have virtually no autonomy. Moreover, while our top-rung universities and institutes (IITs Delhi & Mumbai, IISc) do well regionally, they have consistently remained out of the global top-100.

Way Forward

- Innovation is a key driver for sustenance and prosperity of start-ups, conglomerates, governments by helping them improve their service delivery and performance. It also contributes to the long-term development of an economy.
- India needs to boost its innovation ecosystem by intertwining among various stakeholders like the government, industry, academia and society to transform India as an attractive innovation destination.
- There is a need to link National Labs to Universities to improve the synergy between universities and research institutes. It would fill the gaps of faculty support and young talents and ensure deep commitment to excellence.
- Government can also partner with private sector to create new R&D funding opportunities such as 50:50 partnerships with Science and Engineering Research Board (SERB) for industry relevant research under Uchhtar Avishkar Yojana (UAY).
- Furthermore, academics who believe in not just 'publish or perish', but '**patent, publish and prosper**' should form a crucial cog in the machine of this ecosystem. Scientists, who have the passion to become 'technopreneurs' and passionate innovation leaders need to come up for the scalability of these innovations.

ADMISSION OPEN

MONTHLY CURRENT AFFAIRS REVISION 2020

GS PRELIMS + MAINS

Scan the QR CODE to download **VISION IAS** app

- Detailed topic-wise up-to-date contextual understanding of all current issues.
- Opportunities for discussion and debate through "Talk to expert" and during offline presentations in class.
- Assessment of your understanding through MCQs and Mains oriented questions after each topic.
- Two to three classes will be held every fortnight.
- The Course plan (35-40 classes) covers important current issues from standard sources like The Hindu, Indian Express, Business Standard, PIB, PRS, AIR, RS/LSTV, Yojana etc.

हिंदी माध्यम में भी उपलब्ध

Copyright © by Vision IAS

All rights are reserved. No part of this document may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission of Vision IAS.