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1. POLITY AND CONSTITUTION

1.1. PARLIAMENTARY SESSIONS

Why in news?

- There has been a two weeks delay in the winter session of Parliament, raising concerns regarding Parliamentary functioning.

Background

- By convention, Parliament meets for three sessions in a year: **the Budget session which is held towards the beginning of the year, a three-week Monsoon session (July-August) and Winter session (November-December).**
- The dates for each session are announced at least 15 days in advance so that members have time to submit their questions and give notice for parliamentary interventions.
- The Constitution does not specifically say that when or for how many days should the Parliament meet. **Article 85** of the constitution only requires that **there should not be a gap of more than six months between two parliamentary sessions.** The same applies to state legislatures.
- The President can summon session of Parliament "at such a time and place as he thinks fit" acting on the advice of the Council of Ministers. Therefore, the summoning of the Parliament rests with the government.
- The **Parliament sittings have reduced** from 120 days/year to 65-70 days/year due to various reason including disruptions leading to adjournment.
- The situation of state assemblies also paints a dire situation. Data for 20 Assemblies over the last five years indicate that they meet for 29 days a year on average.

STEADY DECLINE		
Lok Sabha	Sittings per 100 days of tenure	Average session duration (days)
1	37.3	45.1
2	31.9	36.3
3	32.2	36.1
4	33.6	39.1
5	28.7	34.1
6	30.3	29.7
7	25.6	30.7
8	27.1	34.9
9	23.4	15.6
10	23.7	26.4
11	22.0	20.8
12	21.4	22.0
13	22.5	25.4
14	18.2	22.1
15	19.6	23.8
16	19.5	21.4

> **Why is a Parliament session important?**
> - **Platform for Democratic Discussions**- Law-making is dependent on when Parliament meets which is also responsible for democratic debates and discussions on national issues.
> - **Executive Accountability**- The executive is responsible to the legislature through various Parliamentary tools like **no-confidence motions, adjournment motion and debates on address.**

Consequences of such a scenario

- **Compromised legislative business** - A direct consequence of shorter parliamentary session is hasty passage of bills and budgets without due diligence and debate. Over the years, the time spent on discussing the Budget has reduced from an average of 123 hours in the 1950s to 39 hours in the last decade.
- **Lack of avenues to express dissent** - The Conference of Presiding Officers of Legislatures (2001) found that non availability of adequate time and consequent frustration of MPs in not being able to raise matters on the floor of the House was a major reason behind MPs disrupting Parliament.
- **Undermines legitimacy** - The decrease in the number of sittings of Parliament reflects poorly on its image as the highest law making body and contributes to undermining the respect representatives ought to have in the eyes of the citizens.

Way Forward

- **Dilute the power of the government** to be the sole decider of session dates. Government's power to convene the Parliament is in conflict with the principle of the executive being accountable to the legislature.
- Parliament should have more sitting dates and a clear plan of those dates. The **National Commission to Review the Working of the Constitution** has recommended the minimum number of sittings for Lok Sabha and Rajya Sabha be fixed at 120 and 100 respectively.

- Calendar of sittings can be announced at the beginning of each year. This would help members plan better for the whole year and reduce the scope for the government to postpone a session if it wants to defer parliamentary scrutiny on some emergent issue.

1.2. INTER-STATE COUNCIL

Why in News?

The Inter-State Council and the standing committee of the Inter-State Council have been reconstituted recently.

Background

- **Article 263** of the constitution provides for the establishment of an Inter-State Council (ISC).
- The Commission under the Chairmanship of Justice **R. S. Sarkaria** in its report in 1988 recommended that:
  - A **permanent Inter-State Council** called the Inter-Governmental Council (IGC) should be set up under Article 263.
  - The IGC should be charged with the duties set out in clauses (b) and (c) of Article 263, other than socio-economic planning and development.
- Thus, in 1990, Inter-State Council was established.

Article 263 It shall be lawful for the President to establish an ISC for **inquiring, discussing and advising** upon:
(a) disputes which may have arisen between States;
(b) subjects in which some or all of the States, or the Union and one or more of the States, have a common interest; or
(c) such subject and, in particular, recommendations for the better co-ordination of policy and action with respect to that subject.
- Its function is **complementary to Supreme Court's** jurisdiction under Art 131 to decide a legal controversy between the governments.

About ISC

- It is a **recommendatory body** on issues relating to inter-state, Centre-State, and Centre and Union Territory relations.
- It is **not a permanent constitutional body** but it can be established 'at any time' if it appears to the President that the public interests would be served by the establishment of such a council.
- The council **may meet** at least thrice in a year.
- The **Standing Committee of the Council** was set up in 1996 for continuous consultation and processing of matters for the consideration of the council.
- The Committee consists of following members-
  - Union Home minister
  - Five Union Cabinet Ministers
  - Nine Chief Ministers
- The Committee is assisted by **Inter-State Council Secretariat**, set up in 1991 and headed by a Secretary to Government of India.

Composition of ISC
- Prime Minister as the Chairman
- Chief Ministers of all the States
- Chief Ministers of Union Territories having Legislative Assemblies
- Administrators of the Union Territories not having Legislative Assemblies
- Governors of the States under the President's rule
- Six Central Cabinet Ministers, including Home Minister, to be nominated by the PM.

Significance of the ISC

- **Constitutional Backing**- Unlike other platforms for Centre State cooperation, ISC has constitutional backing which puts the states on more solid footing.
- **Platform for Dialogue**- In times of different political parties heading the Centre and various states the need for dialogue assumes a greater importance. Thus, ISC provides a platform for states to discuss their concerns.
- **Decentralized decision making**- If the goal of a more decentralised polity, which needs interaction between various levels of government, is to be achieved, Interstate Council is a crucial first step.
- **Makes governments more accountable**- Given its status as a platform for dialogue and discussion, it makes the governments, both at centre and state level, more accountable for their actions.
- **A safety valve**- The council helps to bridge the trust deficit between the centre and the states. If not always a problem solver, it at least acted as a safety valve.

Issues in the functioning of ISC

- It is seen as a mere talk shop. Thus, it needs to show that it can follow up.
- Its recommendations are not binding on the government.
- It does not meet regularly as recently Inter-State Council met after a gap of 12 years.

What needs to be done?

- The return of the single-party majority government at the Centre has necessitated the **strengthening of inter-governmental mechanisms** for the harmonious working of the federal structure through institutions like ISC.
- It needs to be given all the **powers contemplated in the Constitution** like Art 263(a).
- It should provide **greater opportunities to civil society** institutions and the corporate sector to make their representations.

> **Article 263(a)**, which gave the council the power to investigate issues of inter-state conflict, was dropped in the presidential ordinance establishing the ISC.

- There must be regular meetings of the council so that it can perform its functions effectively.
- Further, its **secretariat may be shifted** from the Union Home Ministry to the Rajya Sabha secretariat so that it would be under the direction of a neutral federal functionary, the vice-president of India rather than Union home minister.

1.3. FINANCE COMMISSION

Why in News?

- The Union cabinet recently approved the setting up of the 15th Finance Commission (FC) with N.K. Singh as its Chairman.
- It has been asked to submit its report by 30 October 2019.

About the Finance Commission

- **Article 280** of the Constitution provides for a FC as a **quasi-judicial body**.
- It is **constituted by the President** every 5th year or at such earlier time as he considers necessary.
- The FC makes recommendations to the President on following matters-
  - The **distribution of the net proceeds of taxes** between the centre and the states, and the allocation between the states of the respective shares of such proceeds.

> **Composition & Qualifications-**
> It is composed of a Chairman and four other members to be appointed by the President.
> The constitution authorizes the Parliament to determine the qualifications of the commission and the manner in which they should be selected. Accordingly-
> - Chairman should be an experienced person with experience in public affairs.
> - Four other members can be selected from amongst the following-
>   - A judge of the High Court or one qualified to be one.
>   - A person with special knowledge of finance and accounts of the government.
>   - A person having wide experience in financial and administrative matters
>   - A person who has special knowledge of economics.

  - The **principle that should govern the grants-in-aid** to the states by the centre (out of the Consolidated Fund of India).
  - The **measures to augment the Consolidated Fund of a state** to supplement the resources of local governments on the basis of recommendations made by the state finance commission.
  - Any other matter referred to it by the President.
- Recommendations made by the FC are **only advisory in nature.**
- The **Constitution empowers** the FC to go beyond the core issues of how to divide taxes vertically between centre and the states on the one hand and horizontally between states on the other.
- It also allows FC to make **broader recommendations in the interests of sound finance**.

About the 15th FC

- The Commission is to finalise its tax-devolution formula after **factoring in the impact on the Union's fiscal situation**, keeping in mind "the continuing imperative of the national development programme including New India – 2022" and government's commitment to compensate states' loss due to GST.

- The commission has also been asked to **propose measurable performance-based incentives** in areas such as-
  - Efforts made by the states in expansion and deepening of the tax net under GST,
  - Efforts and progress made in moving towards replacement rate of population growth, which refers to the total fertility rate that will result in a stable population without increasing or decreasing it.
  - Improvement in ease of doing business
  - Sanitation
  - Reign in populist measures
  - Implementation of flagship central schemes and disaster resilient infrastructure
  - Progress made in increasing tax/non-tax revenues
  - Promoting savings through adoption of direct benefit transfers
  - Promoting a digital economy; etc.

FC & Federalism in India

- The Constitution envisages the FC as the **balancing wheel of the Fiscal federalism in India**.
- Every successive FC has to do a political balancing act by giving more resources to the states given the growing importance of sub-national governments in the Indian political economy.
- It also needs to ensure that centre is not fiscally constrained given its role in key national public goods such as defence.
- Successive finance commissions have increased the proportion of tax revenue that goes to the states—a necessary change given the growing importance of direct taxes as well as the need for higher spending by state governments in local public goods.
- The First Finance Commission headed by K.C. Neogy had recommended that the states get a tenth of total taxes collected centrally. That share has steadily increased. The 14th Finance Commission headed by Y. V. Reddy recommended that the share of the states should be 42%.
- Federalism can flourish only when it is accompanied by a strong central agency that credibly enforces the rules for a new political economy equilibrium.

1.4. PROBITY IN JUDICIARY UNDER QUESTION

Why in news?

The reputation and credibility of Supreme Court and CJI was recently questioned in a medical college bribery case.

Analysis of the Sequence of Events:

- Recently a writ petition was filed **demanding that a SIT under a retired Chief Justice** of India be set up in a case pertaining to instance of bribery for a favorable judicial order in a case of a debarred private medical college admissions. The petition implicated a judgment written by current CJI, even though he has not been named in the FIR.

- After hearing the petition, a two-judge Bench headed by Justice Chelameswar referred the case to a five-judge Constitution Bench.

- In a separate move another five-judge Constitution Bench headed by CJI

LEGISLATIVE PROTECTION FOR JUDGES

No criminal case shall be registered under Section 154 of the Criminal Procedure Code (an FIR) against a judge of the High Court, Chief Justice of the High Court or a judge of the Supreme Court unless the government first 'consults' the Chief Justice of India

Section 77 of the Indian Penal Code exempts judges from criminal proceeding for something said or done in the course of their judicial duties

The government can initiate criminal proceedings against a sitting or former judge of a superior court under sub-section (2) of Section 3 of the Judges (Protection) Act, 1985 if it can produce material evidence to show that a judgment or a Judicial decision was passed after taking a bribe

Section 3 of the Judges (Protection) Act, 1985 protects judges and fromer judges of the Supreme Court and the High Courts from "any civil or criminal proceedings" for any act, thing or word committed, done or spoken by him in the course of their judicial duty or funcion

declared that the 'Chief Justice is the **master of the roster'**, i.e. he has the sole prerogative of setting up benches.

- This **assertion of administrative power by CJI** in the face of allegation of corruption resulted in a **dent on Judiciary's moral authority** and also presented a case of **conflict of interest** wherein CJI became the judge in his own case.
- CJI further asserted that an FIR against sitting judge is not the procedure and amounts to contempt of court thus raising the larger debate of **judicial accountability** and a dent on the **moral authority** of judiciary.

Issues pertaining to Judicial Accountability

- **Inadequacy in legislative mechanisms to tackle judicial corruption:** There are legislative difficulties such as IPC section 77 and Judges(Protection) Act, 1985 in implicating and prosecuting judges.
- **Judicial accountability vs independence of judiciary:** The demand of judges being investigate by CBI, CVC or other such bodies can be misused to seek recusals of judges and may undermine independence of judiciary.
- **Problems with the impeachment:** It is a long-drawn-out and difficult process along with its political overtone.
- **Judges appointing Judges:** The collegium system in India presents a unique system wherein the democratically elected executive and Parliament at large has no say in appointing judges.
- **Non declaration of assets** of judges and judiciary being beyond the **purview of RTI** further needs a course correction.

Suggestions and Reforms for effective Judicial Accountability

- The cardinal principle that the CJI is the master of the roster must be re-examined as was done in U.K. Although it is a tenet of judicial discipline but it cannot be considered an absolute principle of justice delivery.
- A **two level judicial discipline model** with first level as a disciplinary system that can admonish, fine or suspend judges for misdemeanors along with providing them some limited measures of immunity; and, second level as a system of removal of judges for serious misconduct, including corruption must be established.

> **The Judicial Standards and Accountability Bill, 2010**: It aimed at replacing the Judges (Inquiry) Act, 1968.
>
> - It requires judges to declare their assets, lays down judicial standards and establishes processes for removal of judges of the Supreme Court and High Courts.
> - It establishes the **National Judicial Oversight Committee**, the Complaints Scrutiny Panel and an investigation committee.
> - Any person can make a complaint against a judge to the Oversight Committee on grounds of 'misbehaviour'.
>
> The bill lapsed after dissolution of 15th Lok Sabha in 2014.

- It is also impertinent that the **scope of judicial accountability** must be widened from the issues relating to judicial ethics and judicial misconduct and bring in the issues of "**efficiency and transparency**" through the adoption of a new Judicial Standards and Accountability Bill.
- It should also be brought under **Right to Information Act.** Transparency or openness is an accepted principle of democracy and good governance.

1.5. PROGRAM TO TRAIN ELECTED WOMEN REPRESENTATIVES OF PANCHAYATI RAJ INSTITUTIONS

Why in News?

The Ministry of Women & Child Development (MoWCD) has recently launched an intensive training program for Elected Women representatives (EWRs) of Panchayati Raj Institutions.

More about the news

- The program aimed at **capacity building of EWRs** is being organized by National Institute of Public Cooperation and Child Development (NIPCCD) of the MoWCD.

> **About the Programme**
> - It will include simple engineering skills to give them an insight into women's issues as well as focus on education and financial matters.
> - Awards will be given to the Master Trainers to those who have succeeded in empowering EWRs of their areas.

- It is the first ever initiative which will train approximately twenty thousand EWRs covering nearly 50 EWRs from each district (by March, 2018) who will go out and **administer the villages professionally.**
- It will help in creating model villages, ensure their effective participation in governance process and help preparing women as political leaders of the future.

Steps taken for political participation of women

- 73rd (Article 243D) and 74th (Article 243T) constitutional amendment acts mandating at least one third of seats for women in PRIs.
- 108th (Women Reservation Bill which seeks to reserve one-third of all seats for women in the Lok Sabha and the state legislative assemblies.), 110th and 112th (mandating 50 % seats for women in PRIs and Urban local bodies) constitutional amendment bills were proposed, although they have lapsed.
- Bihar, Uttarakhand, Madhya Pradesh, Punjab and Himachal Pradesh have already reserved 50% seats and Sikkim reserved 40% seats for women in local governance.
- National Mission for Empowerment of Women (NMEW) for strengthening the overall processes that promotes all-round Development of Women.

Challenges faced by EWRs

The women participation in grassroot political institutions has improved and stands at 37% (all India average). However, there are numerous challenges faced by them like-

- **Illiteracy & lack of leadership skills** which makes it difficult for them to assert or even openly express their opinions.
- Due to varied **reasons including lack of authority** and **male domination**, even after getting elected most of their work in panchayats is done by their husbands.
- There is a general absence of EWRs from panchayat's meetings due to **discouraging attitudes of the family members**.
- Due to **social myths and prejudices**, **women lack confidence in self** for leading their groups or societies. For example, tradition of remaining silent before elderly members of panchayats is one of the reasons for women remaining silent during panchayat proceedings.
- There is also a **lack of awareness** about the structure and functions of PRIs and **prior exposure to participation in political processes** which hinders the growth and development of women as leaders.

The **Capacity building of EWRs is critical to empower women** to participate effectively in the governance processes. This will help them assume the leadership roles expected of them and guide their villages towards a more prosperous future.

Need for political empowerment of women

- A healthy democracy in India can be established by establishing respect for **women's Human Rights and their right to be heard** in the process of decision making.
- Further, it may result in India **breaking the cycle of poverty** as women choose to invest more on health, education and training of children.
- Even at international level their participation in ensuring the **safety and protection of children and vulnerable sections** of populations is well recognized.
- With female political leaders present, female citizens engage more in civic discussion and women and minorities are more likely to report crimes committed against them.

Conclusion

Constitution grants equality to women but it is only the community which acts as barrier to empower women through the practices of the community. To overcome all the above barriers and obstacles and to perform their roles and responsibilities, a professional training is needed for the elected women representatives which is being addressed by the Programme.

1.6. MORE SEATS FOR SIKKIM ASSEMBLY

Why in news?

The Home Ministry has proposed an increase in the number of seats in the Sikkim Assembly from 32 to 40.

More about the news

- A petition was moved in the Supreme Court that Limboo and Tamangs (notified as STs in Sikkim) were not adequately represented in the Assembly. As per constitutional provisions, the total number of seats for STs should be in proportion to the population.
- The apex court in 2016 directed the Home Ministry to take necessary action for the same.
- Thus the amendments in the Second Schedule to the RP Act, 1950 is proposed whereby total seats in Sikkim Legislative Assembly will be 40 in place of existing 32.
- The proposed amendment will accommodate people from the Limboo and Tamang communities by reserving five out of eight increased seats for them.
- As per Delimitation act, 2002 and consequent **84th and 87th constitutional amendment acts** total number of existing seats allocated to various States in the House of the People and legislative assemblies in all states on basis of 1971 census shall remain fixed till the first census after the year 2026.
- **Special constitutional provisions** to Sikkim under article 371(f) have allowed government to make the proposed changes without constituting a fresh delimitation commission as the Article 170 of the Constitution (related to composition of assemblies and some provisions of delimitation for them) does not apply to Sikkim.

> **Delimitation Commission**
> - It is a **statutory body** established for delimiting constituencies on the basis of population.
> - **Article 82** of the Constitution has provision that the Parliament by law enacts a Delimitation Act after every census
> - The commission's orders have force of law and its decision cannot be challenged in any court.
> - Its reports are laid before Upper House and the state legislative assembly concerned, but changes/modifications are not possible by them.
> - Delimitation in J&K is done under state Constitution.

> **Special provision for Sikkim (Art 371F, 36th Amendment Act, 1975)**
> - The members of the legislative Assembly of Sikkim shall elect the representative of Sikkim in the House of the People.
> - Parliament may provide for the number of seats in the Assembly to protect the rights and interests of various sections of the population of Sikkim, which may be filled only by candidates from those sections.
> - Governor shall have "special responsibility for peace and for an equitable arrangement for ensuring the social and economic advancement of different sections of the population".
> - All earlier laws in territories that formed Sikkim shall continue, and any adaptation or modification shall not be questioned in any court.

1.7. NORTH EAST RURAL LIVELIHOOD PROJECT

Why in news?

Recently, Union Minister of State for Development of North-Eastern Region (DoNER) talked about North East Rural Livelihood Project as an exclusive "Rural Livelihood" scheme for the Northeast.

North East Rural Livelihood Project

- It is a **central sector externally aided multi-state project** which was launched in 2012 with World Bank assistance.
- It is being implemented in four states – **Mizoram, Nagaland, Tripura and Sikkim** with an aim of assisting over 10,000 Self Help Groups which would further benefit over 3 lakh households.
- The project has four major components namely – Social empowerment, Economic empowerment, Partnership development and management and Project Management

Objective of the project

- Creating **sustainable community institutions** for development of women, youth and community and strengthening existing ones (SHGs and youth groups etc.).

- Capacity building for **self-governance, bottom up planning, democratic functioning** with transparency and accountability.
- Increasing **economic and livelihood opportunities** especially tribal and non-tribal groups in remote areas.
- **Developing partnership of community institutions** for natural resource management, microfinance, market linkages etc.

Benefits of the Project

- Increased level of income of SHG members and disadvantaged households by 60% and 30% respectively.
- Financial support for promotion of livelihood activities and training for entrepreneurial and management skills.
- Improved access to credit through SHGs and other diversified institutions.
- Improved integration with markets and institutions facilitated by producer organisations to scale up livelihood activities such as North-Eastern Regional Agricultural Marketing Corporation.
- Enhanced skill linked employment opportunities for unemployed youths.

2. INTERNATIONAL RELATIONS

2.1. UNSC REFORM

Why in news?

India has demanded transparency in the UN Security Council reform process at the plenary meeting of the UN General Assembly.

More about the news

- The reform agenda has been on continuous annual consideration since 1993 but there has been a lack of consensus on the issue, primarily due to "institutional inertia".

Why there is a need for reforms?

- **Changing geopolitics**: UNSC still reflects the geopolitical architecture of the WW II despite the change in power relations in world. The developing nations, including India, now play a larger role in both the international economy and politics, yet are not represented in the forum.
- **Reforms Long Overdue**: It was expanded only once in 1963 to add 4 non-permanent members. Although the overall membership of the UN has increased from 113 to 193 but no change in the composition of the UNSC happened.
- **Inequitable economic and geographical representation**: Major economic and regional powers like Germany (Europe), Japan, & India (Asia) and Brazil (Latin America) are not yet a part of UNSC. Similarly, there is no permanent member from Africa, despite the fact that 75% of its work focused on Africa it has no permanent member from this region.
- **Crisis of legitimacy and credibility:** various issues including its Interventions in Libya and Syria in the guise of responsibility have put the credibility of the institution in jeopardy.
- **North South Divide:** The permanent UNSC membership of P5 today only portrays the big North-South divide in the decision making of security measures.
- **Emerging issues**: Issues such as transnational threats, deepening economic interdependence, worsening environmental degradation also call for effective multilateral negotiations for reforms yet all critical decisions are still being taken by the veto-wielding permanent members of the Security Council.

Reasons For delay in Reforms

- **Lack of Political will**- The UN's rules state that changing the composition of the P5 involves changing the UN's charter which will further **require the backing of two-thirds of the General Assembly** including the current P5 which is difficult to obtain due to lack of political will among them.

What is UNSC Reform agenda?
It entails discussions on following areas:
- Categories of membership
- The question of the veto held by the five permanent members
- Regional representation
- Size of an enlarged Council and its working methods and
- The Security Council-General Assembly relationship.

Arguments in favor of India's bid for membership
- India was **the founding member of UN.**
- India is the **world's largest democracy** and both **demographically and geographically** holds a significant position.
- India is the **second fastest growing economy** in the world making it an ideal destination for foreign investment and future growth.
- India has been the second largest contributor to them **UN peacekeeping operations**.
- India's elevation will also be an **acknowledgment of its rise as a global power**, ready to play a key role in the council's objectives of international peace and security.

G-4 Nations
- It comprises of Brazil, Germany, India, and Japan and they support each other's bids for permanent seats on the UNSC.
- They recently demanded an **'early reform' and enhanced role for developing countries** and improvement of working methods in UNSC in order to make the Council more legitimate, effective and representatives.

Uniting for Consensus (UfC) or Coffee Club
- UfC is a movement to counter the bids for permanent seats proposed by G-4.
- It demands that a consensus must be reached first on the form and size of the Security Council before expanding it.
- It is led by Italy and includes Pakistan, South Korea, Canada Argentina and some other countries.

- **Diverging Demands:** There is a **lack of consensus** among member States and regional groups like G-4, L.69, African Group, UfC, Organization of Islamic Conference, Accountability, Coherence, and Transparency, etc.
- **Veto power**- There are various countries and groups demanding permanent membership and veto power, which the P5 are not ready to accede.

Conclusion

Given the current circumstances it has become crucial for the UNSC to adopt various suggested reforms to uphold its legitimacy and representativeness in the world. However, the inherent paradox, that is impeding any progress, is that for the Security Council to reform the five nations holding ultimate power have to vote to give some of it up.

Thus, for any change in the structure of the organization would require-

- Further extensive discussions and deliberations among the stake holders.
- Gradually building consensus on issues that are holding back the changes.
- A strong political will on the part of P5 and other members of UNSC.

2.2. BELT AND ROAD INITIATIVE

Why in news?

Recently China has urged India to shed its objections and take advantage of the Belt and Road Initiative (BRI).

Why India is alarmed regarding BRI?

- **China Pakistan Economic Corridor (CPEC):** It passes through Kashmir and thus it could legitimize Pakistan's claims in PoK. This violates India's "sovereignty and territorial integrity".
- **Strategic Mistrust:** India's neighbours China and Pakistan are nuclear capable countries and have a legacy of war and boundary disputes with India.
- **Security Implications**: China is promoting its greater presence in North East India, in Bangladesh-China-India-Myanmar countries through Road Initiative and in Indian Ocean through its Belt initiative which is nothing but a disguised "String of Pearls".
- **Showcasing Military might:** The ports like Gwadar are deep enough to accommodate submarines and aircraft carriers which may be used as a military port in future.
- **New Great Game:** China's expansion into the region is being referred to as the new "Great Game" akin to Britain and Russia who jostled for influence in Central and South Asia during 19th and 20th centuries.
- **Lack of transparency**: BRI is a unilateral initiative of China and there is lack of transparency in its functioning.

Arguments in favor of Joining BRI

- **Economic Cooperation:** As per China's position CPEC corridor is a part of economic cooperation. It is not targeted at any third country and does not involve territorial disputes. Joining it would improve economic collaboration among the countries which may have further implications in improving the relations.
- **Trade benefits**: OBOR can open trade avenues for India not only through maritime route but also through road infrastructure.
- **Infrastructure**: It can be a win-win situation for India wherein it can get a boost on regional transport, energy security, and blue economy which are key components of BRI by encouraging geographical integration.
- **Revival of 'continentalism'**: China suggests that as the Eurasian landmass deepens linkages, Asia will emerge as one economic continent and the new economic growth engine of the world.
- **Mutual Advantage**: China has the financial capital, technology to accelerate the development of other countries and India also need resources and funds for its own development.

Conclusion

- Instead of isolating itself completely from the initiative, India can utilize the economic opportunity that it provides. Engaging with China and Pakistan, the important neighbours of India, may help India improve its profile in the region as well as internationally.

- India is not against connectivity, but it stands for connectivity which is open, free and equitable.
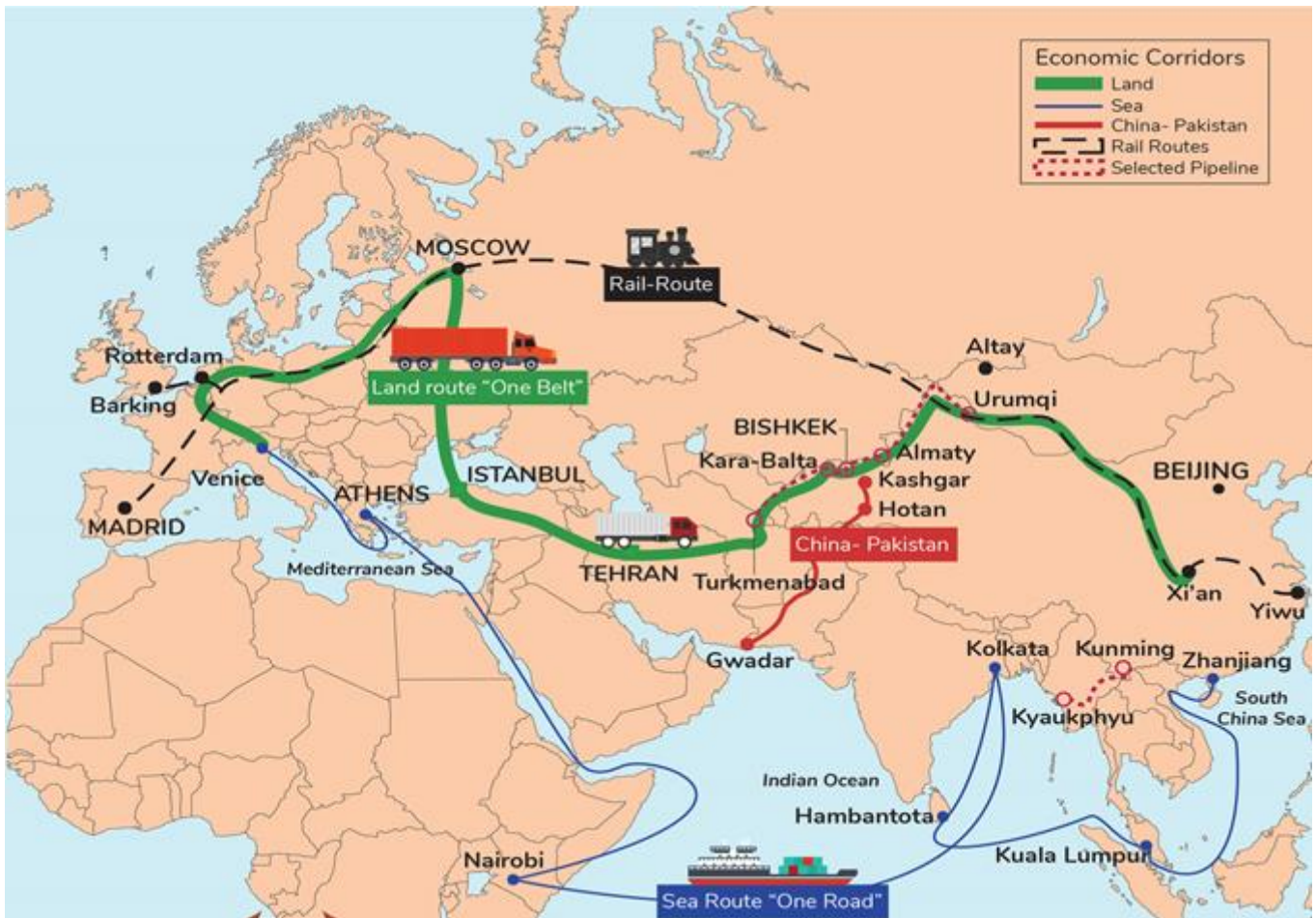
2.3. ASEAN

Why in News?

- Recently, the 15th ASEAN-India and East Asia summits took place.
- ASEAN also celebrated its 50th anniversary.

Other Events

- Many other events that took place simultaneously in Manila during the summit are-
  - o the Regional Comprehensive Economic Partnership (RCEP) leaders' meeting
  - o the ASEAN Business and Investment Summit.
  - o the first meeting of the India-U.S.-Japan-Australia quadrilateral,

Background

Association of South East Asian Nations
• It is a **political and economic organization** aimed primarily at promoting economic growth and regional stability among its members.
• It was **founded in 1967** by the five South-East Asian nations of Indonesia, Malaysia, Philippines, Singapore and Thailand.
• There are currently **10-member** states: Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Laos, Myanmar, Cambodia and Vietnam.

- China has been working on improving its commercial and military dominance in the region (South China Sea issue), which has increased instability in the region.
- Such uncertainties have been further exaggerated by the gradual **retreat of the US** from the region.
- There has been a **fundamental change in India's foreign affairs** with regards to its embrace of the bigger issues of East Asia like the North Korean nuclear crisis as well, depicting its further engagement in the region.

The **East Asia Summit** is a forum held annually by leaders of, initially, 16 countries in the East Asian, Southeast Asian and South Asian regions.
The first summit was held in 2005.

- India has gradually emerged as a more **dependable partner for South-East Asia** following the Doklam faceoff with China.

ASEAN relevance in today's world

Arguments against

- There is a **palpable influence of China (and extra regional powers)** on the region which can be testified by the fact that-
  - China has a de facto veto over any decision which may directly affect Beijing's interests both in economic and security matters.
  - There has been a lack of resolve before China's repeated acts of provocation against ASEAN members, particularly the Philippines and Vietnam.
- There seems to be a lack of mutual trust in terms of security which made the members of ASEAN like Vietnam and Philippines to try to augment their defense ties with the extra regional powers.
- Also, due to lack of coherence and consensus among the members it has failed to negotiate on Declaration on the Conduct of the Parties in the South China Sea.
- Economically, ASEAN still grapples with 10 different tax systems and Indonesia continues to pursue an economically protectionist policy. Foreign ownership is still limited in Indonesia and the hiring of foreign workers is strictly controlled.

Arguments in favour

- The bloc's longevity as well as its relative stability—is itself a testament that one of the world's oldest regional organizations is actually doing something right.
- Recently, the focus of the organization has shifted more towards economy. It is seen that despite the slowdown in global economic growth, ASEAN economies remain as among the most dynamic in the world.

ASEAN has played a crucial role of contributing to political and economic stability in the region. At the same time, dynamism and adaptability have always been the mark of effective institutions, and ASEAN will similarly need to constantly revisit the spirit of its existence vis-à-vis the region's fast-changing geopolitical configuration. For a group like ASEAN, staying relevant, whether via new ways of thinking or new solutions, is the only viable step forward.

India-ASEAN

- In 1992, India became a dialogue partner across limited sectors in ASEAN and in 1995 it achieved the status of **full dialogue partnership**.
- In 1996, India was given the opportunity to appear in the ASEAN Post Ministerial Conference (PMC) and became a full member of the ASEAN Regional Forum (ARF). While in 2012 the relations were upgraded to **strategic partnership.**

> **Trade & Economic Cooperation-**
> - ASEAN region & India comprise about 1/4th of the global population and their combined GDP has been estimated at over $3.8 trillion.
> - India signed a FTA in goods in 2009 and an FTA in services and investments in 2014 with ASEAN.
> - Apart from this, India has a **Comprehensive Economic Cooperation Agreement (CECA)** with various countries of the ASEAN region which has resulted in concessional trade and a rise in investments.
> - India's investment in ASEAN during the same period has been more than $40 billion.
> - Trade between India and ASEAN stood at $65.04 billion in 2015-16 and comprises 10.12 per cent of India's total trade with the world.

- For the past few years India has joined the ASEAN "plus six", including China, Japan, South Korea, Australia and New Zealand, to discuss the RCEP free trade agreement.
- Although there have been issues over India's stand on visas and services access, while also holding out against free trade that could give China an unfair edge in goods trade.
- The "ASEAN-India Partnership for Peace, Progress, and Shared Prosperity" in 2004 and the "Plan of Action" in 2012 highlighted the growing confluence in various areas between ASEAN and India.
- Two decades of the Look East Policy, now renamed as Act East Policy by the government, have brought some positive results for India in making ASEAN an important regional partner.

Significance of ASEAN for India

- **In terms of Economy**

- o The bloc represents a **key trade and investment partner** for India. Over the past 20 years, ASEAN's portion of India's total exports and imports is around 9.22 percent and 8.93 percent, respectively, which is a considerable chunk.
  - o **Investment from ASEAN** to India has been over $70 billion in the last 17 years accounting for more than 17 per cent of India's total Foreign Direct Investment or FDI.
  - o The ASEAN economies have a wide experience in manufacturing which can be utilised by India in its **Make in India** endeavour.
- **In terms of Security**
  - o ASEAN platform allows India to discuss **non-traditional security** issues in Indian Ocean Region(IOR) like piracy, illegal migration, and trafficking of drugs, arms, and human, maritime terrorism, etc. which can only be resolved on a multilateral level.
  - o India has also scored **several diplomatic successes** at ARF, including maintaining ties after its nuclear test of 1998, isolating Pakistan during the Kargil War, and lobbying against Pakistan's entry in the forum till 2002.
- **Connectivity** is another important issue of convergence, with India working toward formalizing its transit agreements and establishing better connectivity infrastructure with this region through land, water, and air, example- India-Myanmar-Thailand Trilateral Highway and the Kaladan Multimodal Project.
- The **aggressively rise of China**, both economically and militarily, has caused suspicion among the countries in the region. This provides an opportunity to India which seeks to balance China and gain cooperation in the region.

Significance of India for ASEAN

- **Economically,** the ASEAN nations can utilize their relation with India, which is an emerging economic power. One of the objectives of the CECA signed between the two is to facilitate the more effective economic integration of the new ASEAN member states and the bridging of development gap among the parties.
- The recent **loss of US market** by the ASEAN nations can be compensated with the domestic demand in India which has been increasing with the rise of middle class in the country.
- In terms of **security challenges**, both ASEAN and India are faced with grave vulnerabilities with regard to terrorism and it is in their common interest to work together to build peace and security in the region.
- With the withdrawal of US troops from strategic locations in the region, ASEAN countries justifiably perceive India, with the largest Naval forces in the Indian Ocean and nuclear capabilities, a strategic partner **to balance China's growing power** in the region
- While East Asia is on the verge of entering a phase of lower share of working age population India is entering a phase with a higher share of working age population which can prove to be a **human resource base for East Asia**.

Way Forward

- Along with East Asian specialization in manufactures, India's strength in services could result in a **formidable strategic combination** which may be **mutually beneficial for both the sides**.
- The US president recently replaced the term "Asia-Pacific" with "Indo-Pacific" which depicts the increasing importance of India, also presenting a great opportunity and responsibility on the Indian part.
- The region has become strategically important for India due to its growing importance in the world politics. And for India to be a regional power as it claims to be, continuing to enhance its relations with ASEAN in all spheres must be a priority.

2.4. QUADRILATERAL MEETING

Why in News?

India has accepted an invitation to join the Japan-proposed, U.S.-endorsed plan for a "Quadrilateral" grouping including Australia to provide alternative debt financing for countries in the Indo-Pacific.

What is Quadrilateral?
- It is an **informal strategic dialogue** and not a military alliance like the NATO.
- It is seen as a **strategic deterrence** as well as a mechanism to provide more and better options to regional powers.

Details

- It was convened around the theme of a **"free and open Indo-Pacific".**
- The discussions focused on cooperation based on their **converging vision and values for promotion of peace, stability and prosperity** in an increasingly inter-connected region that they share with each other and with other partners.
- India highlighted its **Act East Policy** as the cornerstone of its engagement in the Indo-Pacific region.

Background

- It was Japanese Prime Minister Abe who conceived the idea of Asian democracies joining forces in 2007 the maritime democracies have a stake in securing a **rules-based global order, liberal trading system and freedom of navigation**.
- In May 2007, the four countries held the inaugural meeting of a new quadrilateral dialogue on the side-lines of an **ASEAN Regional Forum meeting**.
- Recently, though Australia had earlier withdrawn from the initiative, America clearly expressed its desire to include Australia in the India-US-Japan security collaborations.
- Adding to this, Japan went a step ahead and suggested that Britain and France too could be involved in this grouping.

Why change in India's Policy?

- The grouping is seen as building a **strategic partnership** to deal with China's rise and its implications, which could clearly not be countered with India's 'neighbourhood first' policy.
- Further, India has tacitly accepted that the presence of "other parties" in the region makes our neighbours feel more secure. Two reasons behind the increasing feeling of insecurity among our neighbours are-
  - **Clash of economic interests**- As a growing economy, India's own needs often clash with those of its neighbours. For example, the recent concerns over Bhutan's increasing debt, 80% of which it owes to India.
  - **Delays**- The delays and cost overruns in the big projects of the region taken up by India can no longer be ignored.

Arguments against the inclusion of Australia

- Australia had decided to exit the quad last time around in 2008, in deference to China's concerns.
- Australia's economy is heavily dependent on commodity exports to China.
- Chinese money is deeply enmeshed in Australian politics owing to lax rules related to the foreign funding of political parties.
- Unlike Japan and India, Australia has no direct dispute with China.

Arguments against entry of Britain & France
- Even if the two have islands and military facilities in the region, they are extra-regional powers.
- Further, their reliability is also suspected if the US decides to step back.
- The European powers are still too fixated on Russia (rather than China) as the primary security threat to be of much utility to their Asian partners.

Merit in considering Australia's entry

- Despite all its economic and political ties with China, Canberra has been very critical of Chinese activities in the South China Sea.
- Australia is mulling reforms to its political donation laws in order to limit foreign influence in its politics.
- It is a major maritime democracy in the Indo-Pacific region. India, the US or Japan, all of them frame this partnership in terms of common political values rather than as a counterweight to China—a strategy that makes a lot of sense.
- There are already three trilaterals in operation—India-US-Japan, India-Japan-Australia, and US-Japan-Australia. Coalescing them into one quadrilateral would be a logical step forward.
- The last time the quadrilateral engagement was attempted, it was successful in making China take notice as it registered protest with all the members.

Challenges

- The inclusion of global players in the neighborhood may increase multiple regional rivalries and is expected to push unnecessary enmity between India and China further intensifying the competition in the region.
- It may come at the cost of India's leverage and independent decision making in the region.
- While all Quad participants are members of EAS, India is still not a member of APEC. This lacuna needs to be remedied if India is to contribute to Indo-Pacific region effectively.
- India is the only member of the proposed coalition that is also part of another security arrangement involving China and Russia, the **Shanghai Cooperation Organization.** India's ability to balance its interests will be tested in Quad.
- Further, like India recently objected to Chinese naval presence in the Indian Ocean, it may not be able to object to an increase in U.S. naval warships and Japanese presence there.

Way Forward

- India must demonstrate the will to influence geopolitical outcomes in Asia and beyond. There is no doubt that the construction of quad will face many challenges, given the deep divisions in all countries on how best to deal with China.
- India has to calculate pros and cons before inviting other powers, howsoever well-meaning, into the neighbourhood.

2.5. INDIA-SRI LANKA

Why in News?

- Sri Lankan Prime Minister Ranil Wickremesinghe recently visited India to boost bilateral ties.
- The agenda of the meeting was to expedite decisions on joint projects among other issues.

India and Sri Lanka Economic relations

- **Commercial Relations**- SL is one of India's largest trading partner in SAARC.
  - Trade between the two countries grew particularly rapidly after India-SL **Free Trade Agreement came into force in March 2000**.
  - Bilateral trade in 2015 amounted to US $ 4.7 billion. Exports from India to SL in 2015 were US$ 4.1 billion (up by 2.1%), while exports from SL to India were US$ 645 million (up by 3.2%).
  - India is among the top four investors in SL with cumulative investments of over US$ 1 billion since 2003.
- **Recent Developments**- SL recently allowed India to jointly develop the **Trincomalee port** (oil tanks farm) in north-eastern part of the country.
  - SL has invited Petronet LNG to set up a **liquid gas import terminal** in the country. It may help it straddle the gas sector, the dominant fuel for future economic growth.
  - SL signed an agreement with India to build 1,200 **houses in Hambantota**.
  - India has also bid to lease and manage the **Mattala airport** in Hambantota.
  - India is also helping build various road and rail projects in SL.
- Also, there has been a significant progress in implementation of **developmental assistance projects** for Internally Displaced Persons (IDPs) and disadvantaged sections of the population in Sri Lanka (SL), by India.

> **Challenges for Indian Joint Ventures in SL**
> - The main challenge faced by the projects undertaken by India in SL is the **delay in their completion** and implementation.
> - Many of these projects, like Mattala airport, are **not seen as profitable** for India.
> - Indian ventures in the country are more or less seen as **reactive to the increasing Chinese influence** in the country.
> - The developmental projects cannot be dismissed as reactive per se, yet over-concentration of Indian development funding to Tamil areas has **political consequence** for bilateral relations, stemming from majority Sinhala mass-perception.

The 'China factor'

- China has invested heavily in Sri Lanka's infrastructure as part of its **"string of pearls" policy** aimed at establishing a naval presence across South Asia by building ports and other facilities in friendly countries – including Pakistan, Bangladesh, and Myanmar.
- This concerns India as China's encroachment on its sphere of influence and eroding its commercial and cultural links with the island.

- Under the previous regime, SL looked to China for economic and diplomatic backing at a time when the West was threatening to sanction Colombo for crimes committed in its conflict with Tamil separatists. China is the largest investor in Sri Lanka.
- China's economic dominance in SL both in terms of debt as well as investments increased.
- Therefore, SL is now seemingly trying to balance its policy between India and China, giving India a stake in Hambantota airport, Colombo port project and a key expressway, besides preventing Chinese submarines in Sri Lankan waters in the backdrop of loans from Beijing that have pushed Sri Lanka into debt trap.

Way Forward

- Sri Lanka's importance, for India, increases many folds due to its strategic location in the Indian ocean, especially with the Quad talks in progression.
- On the other hand, SL clearly sees benefit from cultivating ties with both countries. But the government may find it hard to strike a balance between the competing interests of China and India, while fending off domestic concerns over economic colonization.

2.6. INDIAN JUGDE RE-ELECTED AT ICJ

Why in News?

- Recently, Justice Dalveer Bhandari was re-elected as the judge of International Court of Justice (ICJ).

Details

- This is the first time in the 70-year history of the United Nations that the U.K. no representation among the panel of judges ICJ.
- This is the first time that one of the five permanent members of the UNSC lost out to an ordinary member in a race.
- In this context, the loss at the ICJ is being read as confirmation of the U.K.'s diminishing role in global affairs.
- This is also the first time that one sitting member of the ICJ lost to another sitting member.
- Bhandari is the fourth Indian judge to be elected to the ICJ after B.N. Rau, Nagendra Singh and R.S. Pathak.

Analysis

- **Permanent UNSC members unnerved-** Winning against Britain's candidate might set a precedent that might challenge their power equation in future. **Developing countries** voted for Justice Bhandari in overwhelming numbers, forcing the developed countries to take note of their emerging influence in the world.
- **UNGA's vote in India's favour reflects new global order:** The Judge has received the support of nearly two-thirds of the members of the General Assembly. The election result was crucial for India to **gauge the support** it enjoys in the world body where it has been campaigning for reforms, including a permanent seat for itself in Security Council.
- **Skewed balance of power:** Selection of judge indicated the shift in balance of power of UN away from the Security Council.

> **International Court of Justice**
> - Established in 1945, at Hague as the primary judicial branch of UN.
> - It settles legal disputes submitted to it by states and provides **advisory opinions** on legal questions submitted to it by duly authorized international branches, agencies, and the UN General Assembly.
> - The ICJ is composed of 15 judges elected to 9 year terms from a list of people nominated by the national groups in the Permanent Court of Arbitration. No two judges can be of the same nationality.
> - Judges are elected by members of the UN General Assembly and the UNSC, where polling takes place simultaneously but independent of each other. A candidate needs absolute majority in both bodies to be elected.
> - All members of the UN are automatic parties to the statute, but it gets jurisdiction only on the basis of consent of both parties.

- The extraordinary support from the UN membership is reflective of the respect for strong constitutional integrity of the Indian polity and the independence of the judiciary in India.

2.7. INDIA-SINGAPORE

Why in news?

Recently, the India-Singapore Bilateral Agreement for naval cooperation was signed during the second Defence Minister's Dialogue held in Delhi.

Key Facts

- The agreement will allow Indian Navy ships logistical support, including re-fueling, at **Singapore's Changi naval base** located near the disputed South China Sea.
- The agreement covers several areas including increased cooperation in maritime security, joint exercises, temporary deployments in each other's naval facilities, and mutual logistics support.

Significance of agreement:

Apart from improving bilateral relations between India & Singapore, the agreement is important in terms of-

- **Strategic location**- The naval logistics agreement is the first for India with a country located east of Malacca, which is one of the most important shipping lane of the world.
    - o **Economically**, it is considered a critical choke point for global commerce and is seen by China as vulnerability for its energy security.
    - o This would allow greater Indian presence near the contested waters of the South China Sea.
- **Improving India's role in Indian Ocean-** India's presence in Chahabar port as well as in the Changi Naval base in Singapore may help India emerge as net security provider in the Indian Ocean region giving navy the ability for extended deployments in the region.
- **Broader defense ties**- This completes the agreements between the two sides in all service arms – the Air Force Bilateral Agreement was in place in 2007 while the Army Bilateral Agreement was also already in place in 2008.
- **Improving ties with East Asia**- It could also further India's efforts to interact more with Southeast Asian states in the maritime security domain especially with China increasing assertiveness in the region.

2.8. UN PARTNERSHIP FUND

Why in News?

India has pledged an additional USD 100 million towards the **UN partnership fund** at the 2017 UN Pledging Conference for Development Activities.

Details

- The first project from the fund is being executed in partnership with seven Pacific Island countries. The fund has also identified 15 more projects.

The **India-UN Development Partnership Fund (UNDPF)** is a dedicated facility within the **United Nations Fund for South-South Cooperation** established in 2017.

It supports Southern-owned and led, demand-driven, and transformational sustainable development projects across the developing world, with a focus on least developed countries and small island developing states.

United Nations Office for South-South Cooperation (UNOSSC), hosted by **UNDP since 1974**, was established by the UN General Assembly with a mandate to advocate for and coordinate South-South and triangular cooperation (collaboration and partnerships between South-South-North countries) on a global and UN system-wide basis.

- India is also contributing USD 10.582 million India to various other UN programmes.
- The contribution has significantly scaled up India's support to sustainable development projects across the developing world.

South-South Cooperation (SSC)

- It is a **methodology of development** which facilitates the exchange of knowledge, experience, technology, investment, information and capacity between and among Southern countries through various agencies like governments, civil society organizations, etc. to accelerate all-round development.
- It has emerged as a parallel mechanism to support the global quest for improved quality of life across the world with increasing need of assistance in the south and north's uncertainty in providing it.
- Lately, sustained economic growth in emerging economies has fueled a shift in the global center of gravity from the North to the South and the South began looking beyond the North-South Cooperation (NSC) and Triangular Development Cooperation (TDC).

Significance of SSC

- In the past decade **S-S trade and investment has expanded** more quickly than N-S trade.
- Investors from the South often have important **regional know-how**, use appropriate technologies and prove more willing to take business risks in a difficult political environment.
- Further, the countries in the South have become an **additional source of official development assistance** (ODA), thus reducing dependence on north.

2.9. GLOBAL CONFERENCE ON CYBER SPACE

Why in news?

Recently, India hosted the fifth edition of Global Conference on Cyber Space (GCCS).

Global Conference on Cyber Space

- It was launched with a view to establish internationally agreed **'rules of the road'** for behavior in cyberspace, and create a more focused and inclusive dialogue between all those with a stake in the internet (governments, civil society and industry) on how to implement them.
- It has set up an institutional mechanism – **Global Forum on Cyber Expertise** – to enhance capacity building, share best practices and expertise on cyber capacity.

> **Theme of GCCS 2017** is "**Cyber4All: A Secure and Inclusive Cyberspace for Sustainable Development**". However it could further be divided into following four sections:
> - **Cyber4Growth** – share ideas and insights to foster growth and development with growing importance of the cyber space to individuals, small businesses, large companies etc.
> - **Cyber4DigitalInclusion** –draw road map for inclusive society by sharing best practices for digital identity, idea of open and free Internet for all, digital technologies for enabling differently abled etc.
> - **Cyber4Security** –framework for comprehensive cyber security protocols for organisations and nations.
> - **Cyber4Diplomacy** –explore various facets of cyber security such as interstate cooperation for preventing Cyber Warfare and Cyber Diplomacy for Global Order.

Cyber Space Prospects in India

- India is one of the key leaders in digital and knowledge based economy with over 50% share of outsourcing economy.
- According to **Cisco's Visual Networking Index (VNI)** Complete Forecast, the networked devices in India will grow up-to 2 billion from 1.4 billion in 2016 and the internet users in India according to **Internet and Mobile Association of India** are expected to grow to 314 million by end of 2017 with a growth rate of around 28% during 2013-17.
- It is also **third largest hub** for technology start-ups and at present it has various technology based programs such as Aadhaar, MyGov, Government e-Market, DigiLocker, National e-Governance Plan etc.
- The **'Digital India' campaign** forms a crucial part of its development policy aiming towards cashless economy and inclusive development of the country by leveraging technology by boosting connectivity, expanding access and improving electronic delivery of government services.
- The increasing dependence on technology, along with its benefits, is threatening both individual as well as national security for eg: radicalization of youth by terrorists through social networking sites.
- Government has been putting in efforts to fight cybercrimes such as National Cyber Security Policy 2013, National Cyber Security Coordination Centre, CERT-fin, CERT-In, Cyber Swachhta Kendra, collaboration with industry partners etc. to empower people and spread awareness towards the threats.

2.10. GLOBAL ENTREPRENEURSHIP SUMMIT 2017

Why in news?

Recently, NITI Aayog in partnership with the USA held Global Entrepreneurship Summit 2017 (GES) in Hyderabad.

GES 2017

- It is an annual event which is being conducted since 2011 and GES 2017 is first edition to be held in South Asia.
- It provides a link between government and private sector to foster investment and growth.
- The theme for GES 2017 was- **Women First, Prosperity for All**, focusing on supporting women entrepreneurs and fostering economic growth.
- It also highlighted the role played by women entrepreneurs in the present world and the need to increase their participation.
- About 52.5% of participants included women and more than 10 countries were represented by all women delegation such as Afghanistan, Saudi Arabia and Israel.
- It **focused on four innovative Industries**
  - Healthcare and Life Sciences,
  - Digital Economy and Financial Technology,
  - Energy and Infrastructure and Media and
  - Entertainment.

> **Significance for India**
> - India is third largest start-up hub in the world specifically focussing on technology start-ups.
> - It will give Indian entrepreneurs an opportunity to interact and network with the investors and entrepreneurs from across the globe.
> - It will also highlight India's enabling environment for innovation and entrepreneurship.

> **Challenges faced by Women Entrepreneurs**
> - Access to capital.
> - Lack of mentoring for starting ventures and further expansion.
> - Lack of encouragement and knowledge in the direction of start-ups.
> - Safety issue for women to travel for business purpose.

Women Entrepreneurs in India

- According to 6th Economic census, out of 58.5 million entrepreneurs only 8.05 million are women which is about 13.76% of total entrepreneurs.
- Women owned enterprises provide employment to 13.45 million people.
- Out of the total women entrepreneurs, 34.3% are from agriculture sector and 65.7% from non-agricultural sector.
- Even though India is one of the largest hub of start-ups, only 10% of start-ups are started by women entrepreneurs.

Steps Taken by the Government

- Government has been taking various steps to promote women entrepreneurship such as Trade related Entrepreneurship Assistance and Development (TREAD), Mahila Vikas Nidhi, Training programs – National Small Industries Cooperations, Small Industries Services Institutes (SISIs) etc.
- Government has framed **National Policy for Skill Development and Entrepreneurship 2015** in which it is specifically promoting entrepreneurship among women and also the skill training of women.

2.11. ISLAMIC ALLIANCE TO FIGHT TERRORISM

Why in news?

Recently first meeting of **Islamic Military Alliance to Fight Terrorism (IMAFT)** was held in Riyadh.

Islamic Military Alliance to Fight Terrorism (IMAFT)

- It is a Saudi led coalition of 40 countries and constitutes about 60% members of Organizational of Islamic Cooperation (OIC). It was announced as a 34 member group initially in 2015.
- Iran, Syria and Iraq are not part of coalition and Doha though part of the group did not participate in it in the wake of boycott led by Saudi Arabia.
- It will serve as an inter-governmental counter-terrorism alliance against spread of ISIS in the region.
- It further aims to provide military support and coordinate efforts with member countries to counter terrorism and thus aims to delink Islam from terrorism.

2.12. INDIA'S MEMBERSHIP FOR EUROPEAN BANK FOR RECONSTRUCTION & DEVELOPMENT

Why in News?

- The union cabinet recently approved India's membership for European Bank for Reconstruction and Development (EBRD).
- Steps will be initiated by the Department of Economic Affairs to acquire the membership.

Significance for India

- India will only be **providing rather than receiving money** with its new membership. It may, however, benefit indirectly through EBRD projects or if Indian companies invest alongside the bank, thereby increasing India's investment opportunities and enhance its international profile.
- With the country's economic growth over the years and enhanced international political profile, it was considered appropriate that **India should expand its presence on the global developmental landscape** beyond its association with the various multilateral Development Banks.
- It would help India **leverage the technical assistance and sectoral knowledge of the** bank for the benefit of development of private sector in the country.
- It may also help **enhance the competitive strength of Indian firms** and provide a greater access to international markets in terms of business opportunities, procurement activities and consultancy assignments.
- It is expected to open up new vistas for Indian professionals and give a fillip to Indian exports.

> **About EBRD**
> - It is a **multilateral developmental investment bank**, established in 1991.
> - It initially focused to help former Communist states build their economies after the Cold War and then expanded to support development in more than 30 countries from central Europe to central Asia.
> - It works only in countries that are "**committed to democratic principles**", using investment as a tool to build market economies.

3. ECONOMY

3.1. BOOSTING AGRI-EXPORTS

Why in news?

- Recently the Commerce Minister expressed his resolve to expand agri-exports and is expected to announce a policy for the same.

Background

- Export of agricultural items contributes about **13.10% of agriculture GDP**. Agricultural exports account for 12.7% of total exports while imports account for 4.2% of total imports (2014-15).
- India's agricultural trade surplus recorded a more than ten-fold increase between 1991-92 and 2013-14. It took a hit in the last three years when it fell by 70%.
- This mainly happened as **exports fell by 22%** ($42.9 billion in 2013-14 to $33.7 billion in 2016-17) while **imports increased by 62%** ($17.5 billion in 2013-14 to $25.5 billion in 2016-17).
- Agri-exports have primarily suffered due to fall in exports of cereals (wheat and maize), cotton, oilseeds and bovine meat.
- This was mainly due to **fall in international prices and restrictive policies of the government**.
- On the imports front, there were large imports of palm oil and yellow pea.
- India is currently export competitive in 70% of agro commodities, non-tradable in 10-15% and import competitive in the rest of them.
- **APEDA (Agricultural and Processed Food Export Development Authority)** has recently urged the government to allow 10-20 percent of the agricultural produce to be exported.
- Government has recently opened up the export of all types of pulses.
- Government has also formulated various policies over a period of time to boost agri-exports or which benefit agri-trade such as **Agriculture Export Promotion Plan Scheme, SAMPADA, Agriculture Export Zone** and more.

Issues with Agri-exports

- **Frequent change in government policies** has made India an irregular supplier to the international market. Restrictive export policy (such as **Minimum Export Price**) by the government results in farmers losing on the international price hike and also adds an element of uncertainty.
- **Disproportionate warehousing facility for agro-produced and processed foods:** This deters the growth of exports as post-harvest losses of agricultural commodities is estimated to be at about Rs44,000 crore annually.
- **Indian produce fail to meet the phytosanitary and quality**

> **APEDA**
> It is an export promotion organization under **Ministry of Commerce & Industries**. It is mandated with the responsibility of **promotion and development of the export of its scheduled products.**
> It was established under the **Agricultural and Processed Food Products Export Development Authority Act.**

> **Why Boost Agricultural Exports?**
> - **Utilizing Surplus** – By boosting agri-exports, India can utilise the agricultural surplus of many agro- commodities produced every year.
> - **Optimum Utilization of Resources** – Due to India's agro-climatic conditions, India is capable of producing each and every agro-commodity it wishes to. Boosting exports will act as an impetus to utilize our resources.
> - **Help Build Global Value Chain** – Agricultural exports will help build global value chains that will create better job prospects in the agricultural sector.
> - **Doubling the Farmer's Income** – It will help the farmers get better prices for the produce and help the government achieve its target of doubling the farmer's income by 2022.

Trade surplus in agriculture has declined significantly in the last three years
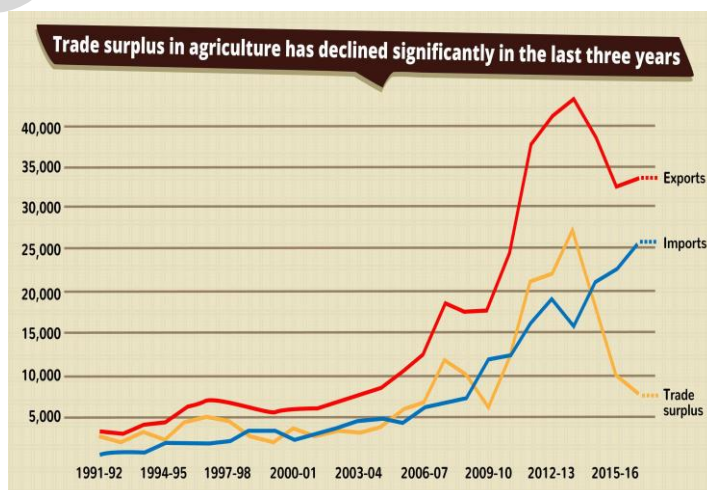
> **Minimum Export Price:** It is the price below which a trader cannot export a certain commodity. This is used to counter rising domestic retail / wholesale price or production disruptions in the country.

standards set by different countries time and again.

- **Land holdings still remain small** with flourishing informal tenancies. The produce from even a district has significant variation in terms of varieties cultivated, size and other physical parameters and stage of maturity at the time of harvest. In view of this, it is difficult for the exporters to source requisite volume of a particular fruit or vegetables and mobilise large-scale capital.
- **Less focus on value added products:** India has so far been traditionally commodity exporter with not much focus being laid on development of export of value added products. With the Indian food processing industry still at an incipient stage, there is limited market intelligence available with respect to raw material as well as potential market for processed food products especially to small players.
- APMC regulated mandis, stocking limits and trading restrictions have made it difficult for farmers to build export oriented value chains.

APEDA's draft Export Strategy

- **Pre-harvest linkages**: Export oriented production through development of clusters in a phase-wise manner where the issues of pre harvest stage including integrated management of pests and diseases, maximum Residue Levels will be addressed.
- **Post-harvest development**: The focus of developing export oriented infrastructure will be in the identified cluster areas where integrated post-harvest, processing facilities, laboratories etc. would be set up.
- **Strengthening cold chain logistics**: This is concerned with increasing the efficiency of suppliers, factories, warehouses and stores so that merchandise is produced and distributed in the right quantities, to the right locations and at the right time, including the use of air transport for perishable products, so as to minimize total system cost subject to satisfying service requirements.
- **Promotion of value added exports**: This includes promoting export of branded value added products which can help in better realization to stakeholders by focussing on certain products such as Mango Pulp, Infant foods etc.
- **Quality enhancement**: this includes strengthening the mechanism for effective handling of SPS notifications and constituting SPS Club of India consisting of various experts acting as a nodal point for interface on SPS notifications.
- Strengthening of Market access efforts by participation in International Trade Fairs, focussing on branding etc.

Way Forward

- India should **focus on building global value chains** in commodities where it has comparative advantage. India has great potential to export fish, seafood, bovine meat, fruits, nuts and vegetables.
- **Infrastructure and institutional support** must be given to the farmers. Export houses must be directly connected to the farmers sidestepping the APMC mandis.
- **Infrastructural enhancement** like warehousing, irrigation facilities must be given due emphasis.
- The government should adopt a stable and open export policy in order to build its repute as a reliable supplier in the international market.
- Government should **facilitate long land lease agreements**. Long land lease agreements can encourage private investors in building exports oriented global value chains.
- Problems of domestic supply must be solved by **scientific evaluation of the crops grown, soil health, weather prediction** and so on.
- Emphasis must be given to farm extension services.

3.2. FISHERY SECTOR IN INDIA

Why in News?

- Recently, India became **second largest fish** producing country in the world.

Overview of the sector

- Constituting about 6.3% of the global fish production, the sector contributes to 1.1% of the GDP and 5.15% of the agricultural GDP.

- There are two branches of fishery sector namely I**nland Fisheries and Marine Fisheries**. The total fish production has nearly 65% contribution from the **inland sector** and rest form **marine fishing**.
- Fish and fish products accounts for around 10% of the total exports of the country and nearly 20% of the agricultural exports.

One of the most significant characteristics of Indian fisheries sector is its small-scale nature. Besides being a source of protein rich nutritious food, income and livelihood to poor fishers, the fisheries sector is important for engaging the rural population in a number of ancillary activities- i.e. marketing, retailing, transportation, etc.

Challenges of Fishery Sector

- The sector suffers from low-scale, stagnating yields of inland and freshwater aquaculture, and poor infrastructure such as cold storage facilities, leading to an estimated 15-20 per cent post-harvest loss.
- The access to quality seed and feed for fish farming coupled with inadequate availability of credit makes the poor fisher communities not to invest in fish farming.
- For inland harvesting of fish there is no code of conduct for leasing of water bodies and no separate provision of drought affecting this sector.
- Loss of habitat and indiscriminate fishing, marine fishing has declined due to depleting resources, energy crisis and resultant high cost of fishing.
- Enhanced human activity in aquatic areas creates the frequent occurrence of **dead zone/ Hypoxic zones** leading to shifting or permanent loss of fishing zone.
- With the increased usage of **Fibre Reinforced Plastic (FRP),** and poor quality boats have amplified leading to ill-effects on marine culture.

> **What is LOP System?**
> The LOP system aimed at facilitating Indian fishermen buy used deep sea fishing vessels from other countries.

Government Step taken

- **For Inland Fishing**
  - Launched Centrally Sponsored Scheme on **"Development of Inland Fisheries and Aquaculture"** under macro-management approach in various states. It includes Productive Utilization of Inland Saline/Alkaline Soils for Aquaculture, Integrated Development of Inland Capture Resources etc.
  - Government had constituted a committee under **Dr. Dilip Kumar** to draft a national policy on inland fishing.
- **For marine fishing**
  - Government had notified **National Policy on Marine Fishing 2017.**
  - "**Letter of Permit"(LOP) system** in the exclusive economic zone (EEZ) has been stopped in order to boost the livelihood of local fisherman.
  - Traditional fishers have been exempted from the fishing ban implemented during monsoon period in the EEZ.
  - Prohibited the use of LED lights and other artificial lights and practice of bull-trawling, purse seining and gill netting operations in the Indian EEZ to protect the marine ecology.
  - Government has prepared a Census of fishermen, preparing a database of fishing activities, installing tracking devices in fishing boats operating in the waters in averse the accident on boast/vessel.

> An umbrella scheme **'Blue Revolution: Integrated Development and Management of Fisheries**' has been formulated by merging all the existing schemes.
> It will cover inland fisheries, aquaculture and marine fisheries including deep sea fishing, mari-culture and all activities undertaken by the National Fisheries Development Board (NFDB).

Step that can be taken

- **On par of agriculture** -Aquaculture needs to be treated at par with agriculture in terms of water, power tariff, tax benefits, subsidy, insurance and credit.
- **Research on** aquatic health management and development of disease resistant strains of fish.
- Implementation of Dr.B Meenakumari committee recommendations such as creation of buffer zone (between 200 metres and 500 metres in depth) and scientific use of fishing net should be implemented.

> **FAO's Code of Conduct of responsible Fishing**
> - This Code sets out principles and international standards of behaviour for responsible practices with a view to ensure the effective conservation, management and development of living aquatic resources.
> - This Code is voluntary. However, certain parts of it are based on **international law**, including those reflected in the United Nations Convention on the Law of the Sea.

- **Special insurance** system for the fishing community and cooperation in safety and security of fishermen with neighbouring countries should be paramount to averse the loss of many fishers lives. The policies should aim at protection of livelihoods of fishers from various other economic and conservational activities.
- Revival of cooperative sector with constant engagement of center government would help in achieving the **doubling the famers Income 2022.**
- In the inland sector, while reservoirs and freshwater aquaculture would be the two main pillars of growth, other resources such as upland water bodies, floodplain lakes and wetlands, irrigation canals, saline and waterlogged areas also need to be gradually mainstreamed to start contributing to the production.
- Programmes aimed at production and distribution of **quality seed and feed** for aquaculture and also culture-based-capture fisheries, husbandry of farmed species would be essential to optimize production and productivity from inland fisheries and aquaculture in the country.
- While the estimated potential of the offshore waters offers opportunities for increase in production, the fishing fleet has limited capacity to harness the deep sea resources. This calls for **up- gradation of the fleet** as well as skills and capacities of the fishers and incentives to promote diversified fishing in the offshore waters. Use of Fish Aggregating Devices (FADs) and Artificial Reefs (ARs) for stock enhancement and promotion of mariculture could enhance production.
- In the **area of legislation**, the existing Marine Fishing Regulation Act (MFRA) of the coastal States/Union Territories (UTs) needs revision to incorporate the requirements of Code of conduct for Responsible Fisheries (CCRF), etc. Similarly, a model bill is needed for inland fisheries and aquaculture and a Central Act is required to regulate fishing by wholly Indian-owned fishing vessels in the EEZ.

3.3. SEED INDUSTRY

Why in News?

- Recent reports highlighted that the Indian seed market reached a value of more than US$ 3 Billion in 2016, with growth rate of around 17% during 2009-2016.

Information about Seed

- It is a mature ovule consisting of embryonic plants together whit store food material covered by a protective coat.
- The production of seed passes through generation system; **Breeder Seed------Foundation Seed------Certified Seed**.
- Breeder Seeds are produced by **Indian Council of Agricultural Research** and Foundation and Certified Seeds are produced by **National Seed Corporation** (Miniratna).

Legislative Initiatives

- Currently, the seed sector is governed by;
  o **The Seeds Act, 1966:** Regulate the quality of certified seeds.
  o **The Seeds Control Order, 1983**: regulates and licenses the sale of seeds;
  o **New Policy on Seed Development 1988**: emphasis on import of seeds, export earnings and increasing farm income.
  o **The Protection of Plant Varieties and Farmers' Rights Act, 2001** (PPVFR Act): protects the intellectual property rights of plant breeders.
  o **National Seed Policy 2002** based on ;
    ▪ Varietal Development, Seed Production, Seed Distribution and Marketing by encouraging private sector as key actor, Infrastructure facility, Establishment of National Gene Fund.
  o **EXIM Policy 2002-07:** restriction on export has been removed except on certain variety of seeds such as onion, berseem, cashew etc.
  o **Seed Bill 2004**;
    ▪ Aims to replace the Seed Act 1966
    ▪ Prescribes minimum seed standard for seeds
    ▪ Non-performing of seed can compensated under Consumer Protection Act.1986.
    ▪ Provisions for self-certification and accreditation of private seed testing laboratories, and regulation of transgenic seeds.
  o **National Seed Plan 2005:** Calls for a synergetic approach between agricultural educational institutions, Seed Companies and state government.

Seed Industry in India

- India is the fifth largest seed market across the globe.
- It is expected to grow at a more than 15% during 2017–2022, and can reach a value of more than US$ 7 Billion by 2022.
- The seed market is majorly contributed by non-vegetable seeds such as corn, cotton, paddy, wheat, sorghum, sunflower and millets.
- Direct contribution of quality seed to the total production can be raised up to 45% with efficient management of other inputs.

Issue Involved

The issues in seed sector involve multiple stakeholders such as;

- **Seed Companies**
  - ✓ The research investment by private companies remained at a meagre 3-4% of revenue against the international norm of 10-12%, due to complex and weak IPR regime and various licencing term for the companies.
  - ✓ Moreover, existing technology provider in GM Crop seed, continue to enjoy close to **monopoly status**.
- **Government**
  - ✓ Regulatory failure in preventing the rampant illegal sale and planting of seeds based on an unapproved GM crop had been reported in Maharashtra and Telangana.
  - ✓ Various agricultural economist argued that the policies for seed sector lack **visionary approach** and rest on fragmented actions.
- **Farmers**
  - ✓ **Seed replacement rate** continues to remain below the desired level of 20 per cent for most crops.
  - ✓ Unscientific use of farm-grown seed lead to lower return from agricultural output.
  - ✓ Availability of less areas for seeds to achieve optimum Seed Multiplication Rate (generation system) add hardship to farmers.

> **Seed Replacement Ratio (SRR)**
> - It is a measure of how much of the total cropped area was sown with certified seeds in comparison to farm saved seeds.
> - It represents the access of farmers to quality seed and directly proportional to productivity of farming.

Step can be taken

- **A swift action framework** is needed in collaboration with state governments to identify and take over fields where illegal GM cotton is being grown.
- **Focus on GM technology**: National policy on GM crops to define the exact areas where GM is required by the country and where the government will encourage public and private investment in GM technology.
- **Quick resolution**: to the conflicts between the different IPR laws that are affecting this industry and clearly defining how the government wants to encourage research investment with assured IP protection in this important sector.
- **Incentives:** to private sectors in the form of bankable schemes should be provided for production of low value high volume seeds.
- **Regulatory mechanism**: Strengthening the regulatory mechanism for the seed and biotech industry to make it transparent, science-based, predictable and fair.
- **Integrated Approach:** Efforts should be made toward improvement of Seed Replacement Rate, distribution of quality seeds appropriate to agro-climatic zone along with a determined effort to address general and region specific constraints.

Conclusion

- Seed industry is the crucial apparatus for sound agricultural health of the economy. **Doubling the farmers' income by 2022** through seed science can be effectively realized through integrated seed market.

3.4. OPEN ACCESS IN ELECTRICITY

Why in news?

- Union Ministry of Power has brought out a consultation paper by a committee setup by the **Central Electricity Authority** to look into issues relating to **open access**.

Background

- Open access is a mechanism that allows generators to sell power to the highest bidders while consumers can source their needs from the most economic seller.
- **Electricity Act, 2003** provides for open access for private generators and bulk consumers **(who consume 1MW electricity and more).**
- Consumers have access to the transmission and distribution (T&D) network to obtain electricity from the suppliers other than local discoms.

Benefits of Open Access

- **Competitive Market –** Open access boosts greater participation of private players in the power sector resulting in a dynamic and competitive market.
- **Increase in Choices** – With multiple suppliers as well as existing discoms, consumers can explore cheaper sources. Large consumers have benefitted by buying electricity from the open market as **it has relieved them of the burden of cross subsidization.**
- **Consistent Power Supply –** It offers reliability of power for large consumers in the wake on inconsistent power supply by the discoms. This is especially beneficial for industries that use power all round the clock to function.

> **Cross-subsidization** – It refers to the practice of charging higher prices from a certain set of consumers in order to charge lower prices from another set of consumer i.e. subsidize the prices for them.
>
> This is practiced in the power sector by charging commercial or industrial users higher prices in order to subsidize small and residential consumers.

Issues with Open Access

- **Frequent shifting of Open Access Consumers:** DISCOMs are unable to manage power procurement efficiently due to the high frequency of shifting of Open Access consumers between DISCOM and other source of power.
- **Cross Subsidy Surcharge:** The Cross Subsidy Surcharge calculated by State Electricity Regulatory Commissions (SERCs) and recovered from Open Access consumers is often insufficient to recover the entire loss of cross subsidy on account of consumers procuring power through the Open Access route.
- **Additional Surcharge:** Majority of power procurement by DISCOMs is long term in nature. Additional surcharge to recover stranded cost on account of stranded Power Purchase Agreements (PPAs) and stranded assets due to consumers procuring power through Open Access have in most cases not been calculated appropriately. This has led to under recovery of power procurement expenses incurred by DISCOMs.
- **Load Variability** – In wake of load variability, discoms supply to industries increases. This not only makes load management tricky but in case of loss of load later, discoms continues to pay capacity charges (Including standby charges whereby contingency arrangements are made for Open Access Consumers) adding to their financial burden.
- **Inadequate Transmission Capacity –** Weak transmission networks in the country makes it difficult to procure electricity through open access.

Way forward

- Open access customers should be required to schedule power for at least 24 hours whenever they seek open access to take care of the frequent shifting issue.
- However, there should be no restrictions from switching between competitive suppliers so as to maintain the competition in the market.
- The high degree of cross-subsidization needs to be addressed and government must rationalise electricity tariff to improve the health of loss-making discoms.

- Transmission network need to be strengthened in order to improve open access intra-state as well as inter-state.

3.5. NATIONAL ANTI-PROFITEERING AUTHORITY

Why in news?

- The GST council has approved the creation of **National Anti-Profiteering Authority (NAA) to ensure that benefits of input tax credit and tax reductions are passed on to the end consumer**.

More about NAA

- In wake of the recent rate reduction in GST, the **government has formed NAA under the GST law**.
- Along with NAA, **a Standing Committee, Screening Committees in every State and the Directorate General of Safeguards in the Central Board of Excise & Customs (CBEC)** have also been instituted under anti-profiteering measures.
- In event of application of anti-profiteering measures, NAA can order the supplier/business concerned to reduce its prices or return the undue benefit availed by it along with interest to the recipient of the goods or services.
- If the undue benefit cannot be passed on to the recipient, it can be ordered to be deposited in the **Consumer Welfare Fund**.
- In extreme cases, the NAA can impose a penalty on the defaulting business entity and even order the cancellation of its registration under GST.

> **Profiteering** means unfair profit realized by traders by manipulating prices, tax rate adjustment etc.
>
> In the context of GST, it means traders do not reduce prices when GST rates are cut.
>
> **Input tax credit** enables the producer to reduce the tax he has paid on the input and pay the balance amount (tax payable on output).

> **Consumer Welfare Fund**
>
> The Fund has been set up by the **Department of Revenue** and, is being operated by the **Ministry of Consumer Affairs, Food & Public Distribution, Department of Consumer Affairs.**
>
> The overall objective of the Consumer Welfare Fund is to **provide financial assistance to promote and protect the welfare of the consumers and strengthen the consumer movement in the country.**

Issues involved

- It may be worthwhile to debate whether the NAA is the agency best suited to investigating pricing abuse, or whether this function should be assigned to a pre-existing agency with an overlapping mandate. For instance, Australia mandated its own competition commission to investigate related pricing violations when it passed its GST law.
- The passing on GST benefits to consumers is a **function of the market structure**, which determines pricing power. Protecting consumer interest is important, but the prospect of the government monitoring prices and asking businesses to justify pricing decisions instead of letting market forces play out is unnerving.

Way Forward

- The NAA could take a cue from, if not partner, the Competition Commission of India, and focus on firms raising prices indiscriminately in markets where they enjoy a dominant position, or forming pricing cartels.
- Care should also be taken to ensure that **investigations are cost-effective**. This can be achieved by narrowly scoping areas for investigation and by pre-specifying and adhering to rules of operation.
- In summary, the setting up of the NAA has the commendable intent of protecting consumers from GST-related pricing abuse. At the same time, the government must ensure that the authority's powers are used transparently and only where there is genuine consumer/public interest at stake.

3.6. TRAI RECOMMENDATIONS FOR THE TELECOM SECTOR

3.6.1. NET NEUTRALITY

Why in news?

- Telecom Regulatory Authority of India (TRAI) has issued its recommendations on net neutrality.

> **Net-Neutrality**
>
> - Net Neutrality or Network neutrality is the idea that Internet service providers (ISPs) should treat all data that travels over their networks fairly, without improper discrimination in favour of particular apps, sites or services.

Recommendation

- **Non-Discriminatory treatment:** It prohibits any discrimination whether based on the sender or receiver of the content, the protocols used or the equipment being used to access the internet. In addition, TRAI recommends specific rules against blocking, degrading, slowing down or granting preferential treatment to any content.
- **Specialised Service:** TRAI allows some **specialised service** (require a minimum assured quality of service for their functioning) **to be exempted** from neutrality framework, in order to regulate the flow of traffic, such as; tele-surgery, Voice over Internet Protocol (VoIP) and IPTV services etc.
- **Content delivery Network (CDN) platform:** the Authority recommends that CDNs should not be included within the scope of any restrictions on non-discriminatory treatment, which are designed specifically to cover the providers of Internet Access Services.
- **Reasonable traffic Management practices:** in this regards TRAI may, from time to time, frame appropriate regulations to specify further details regarding the scope and assessment of reasonable traffic management practices.
- **Regulatory Body:** TRAI suggested DoT may establish a multi-stakeholder body with framework for collaborative mechanism among the stakeholders for monitoring the net-neutrality.

> **VoIP**
>
> Voice over Internet Protocol (VoIP), is a technology that allows you to make voice calls using a broadband Internet connection instead of a regular (or analog) phone line.
>
> **CDN platform**
>
> CDN is a system of servers, deployed at the edge of (or within) the terminating network of an access provider, that content provider can use to distribute their content.

Significance of recommendations

- The recommendation preserves the democracy of internet and promotes equitable access to the internet for every citizen.
- It would ensure a level playing field for IT and OTT (over-the-top) services providers to innovate and customize in India and provide a constantly expanding range of new services relevant to every individual.
- The CDN exemption is likely to benefit integrated operators trying to attract users. CDN enables telecom service providers to deliver content within their network without going through the public internet.

Shortcoming of Recommendation

- TRAI has taken an extremely simplistic view towards net neutrality, especially omitting the economics of providing connectivity and content to users.
- It's a recommendation, and not yet a rule, as it is to be implemented by amending the license agreements that govern all providers of internet access.
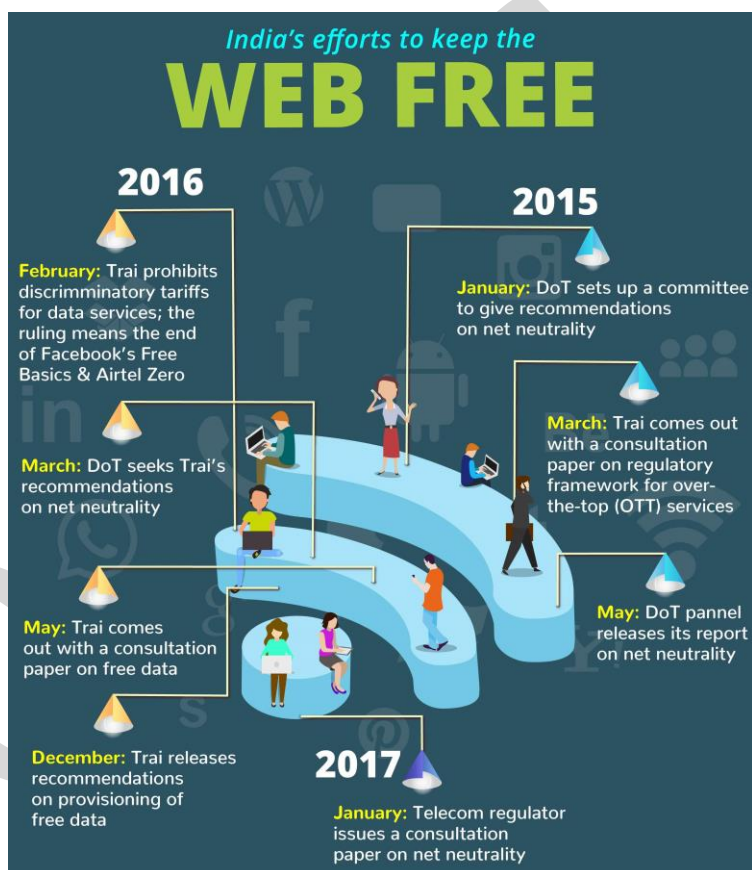
3.6.2. SPECTRUM RELAXATION

Why in news?

- The **Telecom Regulatory Authority of India** has proposed to relax spectrum holding norms.

What is spectrum and how does it work?

- Spectrum refers to the radiowaves that are used by mobile phones to transmit data.
- The spectrum has been divided into bands by the government for uninterrupted transmission of data.
- Carriers in India use airwaves in the 800 Mhz, 900 Mhz, 1800 Mhz, 2100 Mhz, 2300 Mhz and 2500 Mhz bands.
- Although 700 Mhz was put up for auction but it is not being used by any carrier in India currently.
- In order to manage the spectrum across the country, the government divided India into 22 telecom circles.
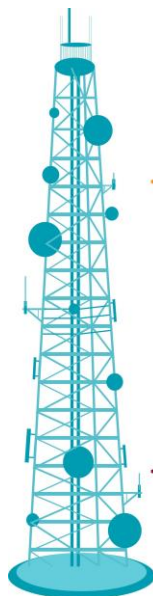
CURRENT REGULATION
- An operator cannot have more than 25% of total spectrum allocated in a circle
- In addition, can't have more than 50% in a given band

TRAI RECOMMENDATION
- The overall cap should be raised to 35%
- 50% intra-band cap be removed; insted put 50% on all sub-1GHz spectrum put together

BENEFICIARIES – OPERATORS
- Merged entity of Voda-Idea would not have to surrender excess spectrum in 5 circles
- Jio can buy more spectrum form RCom

INDUSTRY GAIN
- Lead to more consolidation
- Will ensure better spectrum purchase by operators & greater spectral efficiency

Please refer to the October issue of the Vision IAS current affairs to know more about the telecom sector and SNT Mains 365 issue for net neutrality.

3.7. RELAXATION ON BILATERAL TRANSFER PRICING POLICY

Why in news?

- **Central Board of Direct Taxes (CBDT)** has relaxed norms for **Mutual Agreement Procedure (MAP)** and **Advance Pricing Agreements (APAs)**.

What is it?

- APAs and MAP are **alternative tax dispute** mechanism in matters involving transfer pricing.
- **APA** is a contract between a taxpayer and at least one tax authority (one of the two countries that have signed the bilateral treaty) specifying the pricing method that the taxpayer will apply to its related-company transactions. It is signed prior to the transaction taking place.
- **MAP** is a way by which taxpayer can seek relief in his country of residence when he feels that he is not being taxed according to the terms of the bilateral treaty between the two countries.
- Prior to the recent relaxation, Income Tax Department was open to receiving bilateral APAs and MAP only in case of existence of **"corresponding adjustment"** clause in the **double tax avoidance agreement (DTAA)** with the concerned countries.
- Now, the income tax department will continue to receive applications from companies despite the absence of 'corresponding adjustment' clause in the double taxation avoidance agreement (DTAA) with the countries concerned.
- The 'corresponding adjustment' clause in transfer pricing matters provides that if tax demand is raised on a company by a DTAA-signatory country, the revenue authorities in India would reduce the tax liability of the parent company based in India.

> **Transfer Pricing:** It refers to the pricing of international transactions of associated entities (those that have common ownership).
>
> For example: an automobile company based in Japan may charge a convenient price from its subsidiary in India in order to maximise its tax payment in India.
>
> **DTAA**: It is a tax treaty between two countries in order to avoid double taxation of same taxpayer.

> **OECD (Organisation for Economic Co-operation and Development)**
>
> It is an inter-governmental economic organisation that aims to promote policies that will improve the economic and social well-being of the people around the world.

Significance

- This move brings India in the line with the commonly accepted practices abroad as outlined by the OECD.
- It strengthens the government resolve to establish a non-adversial tax regime and thereby improving India's ease of doing business prospects.
- It will open the gates for clearing of many pending transfer pricing cases currently under litigation.

3.8. WHITE PAPER ON DATA PROTECTION FRAMEWORK

Why in news?

Recently Ministry of Electronics and IT has put a white paper in public domain aimed on data protection framework on the basis of recommendations of expert committee headed by **Justice BN Srikrishna.**

Need of Data Protection in India

- **Digital Economy:** The database protection framework is indispensable to develop an ecosystem of data driven innovation and entrepreneurship and thus ensuring growth of digital economy in India.
- **Protection of Privacy:** Privacy can be understood as :
  - o **Spatial privacy**: the privacy pertaining to physical spaces, bodies and things;
  - o **Decisional privacy**: the privacy of certain significant self-defining choices and
  - o **Informational Privacy**: The privacy of personal information

> **7 Principles for data protection given by the committee**
> - **Technology agnosticism**: Law should be flexible to take into account changing technologies,
> - **Holistic application**: It must apply to both government and private sector entities,
> - **Informed Consent:** Consent should be genuine, informed, and meaningful
> - **Data Minimisation:** Processing of data should be minimal and only for the purpose for which it is sought
> - **Controller Accountability:** Entities controlling the data should be accountable for any data processing,
> - **Structured Enforcement**: Enforcement of the data protection framework should be by a high-powered statutory authority, and
> - **Deterrent Penalties:** Penalties should be adequate to discourage any wrongful acts.

Although the concept of data protection is primarily linked with the idea of informational privacy yet its impact on decisional privacy and spatial privacy is also discernible.

- **Emerging Technological Challenges**: Technologies such as Big Data, the Internet of Things and Artificial Intelligence, have necessitated that a balance between innovation and privacy need to be struck while accommodating the traditional privacy principles.
- **Cyber Security threats** such as ransomware Wannacry may otherwise result into heavy damages, including loss of data and disruptions in business and need to be accounted for in legislative framework.
- **Sensitive Financial Information** on debts and defaults collected by the Information utilities set up under bankruptcy code also needs to be safeguarded for fair process and sound financial decision making.
- **Sovereign Ratings:** In line with FDI liberalisation and capital flows across borders it becomes impertinent for India to follow global standards on data privacy as data breaches may lead to cutting of sovereign ratings.

Status of Data protection in India:

- **Judicial Developments:** Supreme Court in Puttaswamy case held the **right to privacy** as an intrinsic part of the right to life and personal liberty and recognised that 'informational privacy' is an important aspect of the right to privacy that can be claimed against state and non-state actors.
- **Legislative Developments:**
  - o **Information Technology (Reasonable Security Practices and Sensitive Personal Data or Information) Rules, 2011** provide for protection of sensitive personal data. But they deal only with the corporate sector leaving the government out of its ambit and even obviating the need of consent of provider in sharing information with government agencies.
  - o **Aadhaar Act 2016** provides for collection of biometric information and establishes UIDAI to deals with privacy and security of personal data. But it has been proved ineffective in the face of multiple data leaks.
  - o **Financial Sector:** Financial information is a highly sensitive category of information and data is protected through Credit Information Companies Regulation, 2006 (CIC Regulations) and circulars issued by the Reserve Bank of India (RBI).
  - o **Telecom Sector:** Data protection norms in the telecom sector are primarily dictated by the Unified License Agreement (ULA) and TRAI reglations. But TRAI regulations deal with communication through phones, and do not cover an email application or advertisements appearing on browsers.

- o **Health Sector:** The limited privacy safeguards and absence of an enforcement mechanism in the Indian Medical Council Code(IMC) largely inadequate to address the concerns surrounding health information

Thus Indian privacy and data protection framework is to be developed in considering all these laws and regulations in mind.

Possible Approaches of Data Protection

- The committee considered rights based stringent data protection model of EU and USA's model which seeks to protect the individual "from excessive State regulation" and encourage innovation by allowing collection of personal information as long as the individual is informed of such collection and use.
- In India, there is a need is to encourage innovation while holding privacy to be fundamental, yet limited by reasonable restrictions thus placing Indian data protection model somewhere in between.

Issues under Debate in Data Protection Legislation:

- **Scope and exemptions:** It includes territorial applicability of law, definition of personal data and categories of exemption including the safeguards that need to be ensured while processing data.
- **Grounds for data processing, obligation on entities and rights of individuals**: It includes conditions determining a valid consent, specifying purpose of collection of data and rights based on European Union guidelines(derived from OECD principles) such as the right to object to data processing, right to be forgotten etc.
- **Regulation and enforcement:** It includes decision on Enforcement models to be used for code of conduct, breach of personal data and provisions of Penalty or Compensation as the case may be.

NOTE: For details on Privacy judgment and threats to privacy Please refer Polity Main 365 Updated material for 2017.

3.9. COASTAL ECONOMIC ZONE

Why in News?

- Recently, government has given the approval for setting up India's first mega coastal economic zone (CEZ) at Jawaharlal Nehru Port (JNPT) in Maharashtra.

More on News

- The CEZ will stretch along north Konkan region spread across Nashik, Thane, Mumbai, Pune and Raigarh.
- This is the part of setting up of 14 mega CEZs under the **National Perspective Plan of the Sagarmala Programme.** (See Box)

Sagarmala Programme

- It is coastal and port city development plan, where manufacturing units will be set up to generate jobs.
- Its aims to harness country 7,500 km long coastline, 14,500 km of potentially navigable waterways and strategic location on key international maritime trade routes.
- The Sagarmala program has taken shape using the government's core philosophy of **cooperative federalism.**

National Perspective Plan (NPP) of the Sagarmala Programme.

- It takes forward Sagarmala's vision of substantially reducing export-import and domestic trade costs with a minimal investment.
- **Components of NPP of Sagarmala Programme** ;
  - o **Port Modernization & New Port Development** : through the mechanization of berths and deepening of drafts to accommodate larger vessels and building of 5-6 new ports and 40 ports enhancement capacity programme.
  - o **Port Connectivity Enhancement**: 80 projects are being planned, include connectivity infrastructure projects like a heavy-haul rail corridor, freight-friendly expressways for efficient movement and development of strategic inland waterways.
  - o **Port-linked Industrialization:** 14 Coastal Economic Zones (CEZs) along the coastline, with cluster of industrial such as energy, bulk materials as well as discrete manufacturing segments.

- o **Coastal Community Development:** developing opportunities for fishermen, focus on focused skill-development to support port-led industrialization. A separate costal community development fund would be earmark for the purpose.
- **NPP is based on four strategic levers**: 1.Optimizing multi-modal transport to reduce the cost of domestic cargo, 2.Minimizing the time and cost of export-import cargo logistics, 3. Lowering costs for bulk industries by locating them closer to the coast, 4. Improving export competitiveness by locating discrete manufacturing clusters near ports.

What is Coastal Economic Zone?

- It is conceptualised as a spatial-economic region which could extend along **300-500 km of coastline** and around **200-300 km inland** from the coastline. Each CEZ will be an agglomeration of coastal districts within a State.
- The concept is based in China based Shenzhen-style Coastal Economic Zone. It will provide the geographical boundary within which port led industrialization will be developed by having a uniform policy along the ports and coastal states.
- The CEZs have been envisaged to tap synergies with the planned industrial corridors like Vizag Chennai Industrial Corridor and Delhi Mumbai Industrial Corridor.
- Under CEZ investors will get business friendly ecosystem including ease of doing business, especially ease of exporting and importing, swift decisions for environmental clearances etc.

Benefits of CEZs

- **Employment**: Niti Aayog has pointed out that low growth in job can be boosted by **export led coastal economy**, based on labour intensive sectors such as apparel, footwear, electronic and electrical products and other light manufactures.
- **Boost Export:** large manufacturing firm assisted by ancillary firm will provide robust export led coastal eco-system.
- **Foreign Capital**: It would attract large foreign firms which would bring with them technology, capital, good management and links to the world markets.

> **Other information about Sagarmal Programme**
> - **National Sagarmala Apex Committee (NSAC**) chaired by the Minister in-charge of Shipping, is envisaged for overall policy guidance and high level coordination, and to review various aspects of planning and implementation of the plan and projects.
> - **Sagarmala Development Company (SDC)** has been incorporated under administrative control of the **Ministry of Shipping to** assist the State level/zone level Special Purpose Vehicles (SPVs).
> - SDC would be raising **funds** by leveraging resources provided by the government and from **multi-lateral and bilateral funding agencies.**
> - In order to execute the last mile connectivity rail connectivity and internal rail projects of the Major Ports a Special Purpose Vehicle (SPV) – **The Indian Port Rail Corporation (IPRC)** is incorporated under the Companies Act 2013, under the administrative control of the Ministry of Shipping.

- **Cluster-Development**: It would generate an ecosystem around them in which productive cluster small and medium firms would emerge and flourish.

Challenges

- **Land resource**: Non-availability of land parcels with the states along with huge acquisition and compensation costs are delaying the execution of the project.

- **Lack of infrastructure**-for evacuation of cargo at major and non-major ports leading to a sub-optimal transport modal mix, low penetration of coastal and inland shipping, lack of scale and deep draft at ports also contributed to the skewed growth.
- **Fragmented approach**-The involvement of multiple agencies might lead to fragmented approach in the development of infrastructure to promote industrialization, trade, tourism and transportation across the country.

Note: For more information on Sagarmal Programme refer August CA 2017.

3.10. GARMENT SECTOR

Why in News?

- Recently, Government has announced the rebate for custom duty under the **Scheme for Rebate of State Levies on Export of Garments** (**ROSL Scheme).**

Garment Sector in India

- It is the sub-sector of Textile Industry contributing the 14% of total Industrial Production.
- Both textile and apparel sector is the second largest employment provider in the country employing nearly 51 million people directly and 68 million people indirectly in 2015-16.
- Garments (Apparel) exports moved up to $17.5 billion in 2016-17 from $16.8 billion in 2014-15.

Challenges for Garment industry

- **Size of factories**: Until 2015, garment was reserved for MSMEs due to which average size of Indian garment factory is too small; they typically have 150 people and about 80 machines. The average factory in Bangladesh has 600 people.

> **About the ROSL Scheme**
> - Launched in 2016, under the aegis of Ministry of Textile.
> - Under the scheme Central Levies are rebated by way of the drawback scheme.
> - It will be applicable only to exporters who have constituted an Internal Complaints Committee (ICC) in pursuance of the Sexual Harassment of women at workplace (Prevention, Prohibition and Redressal) Act 2013.
> - It is not applicable for exports made under pre-existing **Advance Authorisation Scheme** (to allow duty free import of inputs, which are physically incorporated in export product).
>
> **Benefit of the scheme**
> - It will help Indian apparel manufacturers compete with global players.
> - It will boost exports and employment generation in the labour intensive textiles and apparel sector.

- **New Marketing strategy required:** as social development has changed the lifestyle of consumers, and due to demographic changes there is an increasing number of consumers with different demands and needs**.**
- **Multiple tax:** there are several blocked input taxes such as on transport fuels, electricity, stamp duties on immovable property, taxation from composition and unregistered dealer inputs.
- **Competition from other countries**: the sector has been facing stiff competition from countries such as Bangladesh and Vietnam.

Step taken by Government

- **Merchandise Exports from India Scheme (MEIS):** The government has doubled the rates of incentives under the **MEIS** for garments and made-ups exporters for a period of eight month.
- **Scheme for Integrated Textile Parks (SITP):** Infuse funding for infrastructure of Textile parks.

> **Duty Drawback Scheme**
> - The scheme pertain to refund of duty of customs and duty of central excise that are chargeable on imported and indigenous materials used in the manufacture of exported goods.
> - It is of two types;
>   - **The All Industry Rate (AIR) :** an average rate based on the average quantity and value of inputs and duties (both Excise & Customs)
>   - **The Brand Rate of Duty Drawback:** is allowed in cases where the export product does not have any AIR of Duty Drawback or the same neutralizes less than 4/5th of the duties paid on materials used in the manufacture of export goods**.**

- **Integrated Processing Development Scheme (IPDS) -** is being implemented to make Indian textiles more competitive and environment-friendly.
- **Integrated Skill Development Scheme (ISDS) -**plans to bridge that skill gap by training 1.5 million people for which USD 300 million has been allocated by the government.

- **Amended Technology Upgradation Fund Scheme for textiles industry (ATUFS)-** is designed to provide incentives to entrepreneurs and business owners for upgrading technologies. ATUFS facilities are expected to receive an investment of USD 15 billion and create 3 million jobs in the country.
- **'Fibre-neutrality effect' has been maintained-** with the introduction of GST, meaning thereby, all man-made and natural fibres will be treated equally from the tax point of view.

Some other suggestions

- Establishment of close linkage between forward and backward support system for Instance; manufacturing of spinning yarn and readymade garments must be linked.
- Identify the industrial-zone on the basis of scientific study in order to effectively reduce the production cost of made-up.
- Extension of joint collaboration of initiatives such as; Raymond's partners with Khadi and Village Industries Commission to launch new clothing line.
- Economic survey 2015 highlighted the concept of **geology, geography, and "jeans"** (code of low skill manufacturing) can effectively utilised this sector.

3.11. TASK FORCE TO DRAFT NEW DIRECT TAX LAW

Why in News?

- Government has constituted a six member penal headed by **Arbind Modi,** to draft a **new direct tax law** to replace the existing Income Tax Act, 1961.

Need

- Present Income Tax Act, is extremely complicated and contains various ambiguities that create an excess of litigation.
- Current law provides administrative discretion that is often the source of corruption and sometime breeds tax terrorism.
- Imposes high costs of compliance that especially hurts those with lower incomes and accounts huge revenue foregone.
- Direct tax system has many exemptions that hurt allocative efficiency by distorting the decisions of participants in the economy.

Intended Benefits

- **Competitive economy:** Simplified and clean Direct Tax Code will help make the Indian economy more competitive through tax stability, minimal exemptions and the focus on allocative efficiency.
- **Tax Base:** could be altered by increasing the number of people paying income taxes.
- **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.

Direct Tax
- It is the tax where the incidence and impact of taxation fall on the same entity.
- It is termed as a progressive tax because the proportion of tax liability rises as an individual or entity's income increases.
- It is of various types such as; income tax, corporate tax, dividend distribution tax, fringe benefit tax and wealth tax.
- **Income Tax Act 1961 (ITA)** has provision for income tax, corporate tax, property tax

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Related Initiatives for Direct Tax
- **India endorsed the Base erosion and profit shifting (BEPS)**- It is refers to tax avoidance strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations.
- **Government adopted General Anti Avoidance Rule (GAAR)**- Its provisions aim at taxing transactions/ arrangements/ schemes where the sole intention is directly or indirectly obtaining tax benefits using the loopholes under the ITA.
- **Government continuously extending the Advance Pricing Agreement:** It is an agreement between a tax payer and tax authority determining the transfer pricing methodology for pricing the tax payer's international transactions for future years.

3.12. LOGISTIC SECTOR GETS INFRASTRUCTURE STATUS

Why in News?

- Recently, Finance Ministry had granted infrastructure status to logistic sector by widening the category of infrastructure sub-sectors to "transport and logistics".

About Logistic infrastructure

- It involve material handling, warehousing, packaging, transportation, shipping security, inventory management, and supply chain management, procurement, and customs service.
- Government defines logistic as;
  - A multimodal logistics park comprising an Inland Container Depot (ICD) with a minimum investment of Rs50 crore and minimum area of 10 acre.
  - A cold chain facility with a minimum investment of Rs15 crore and minimum area of 20,000 sq. ft and a warehousing facility with a minimum investment of Rs25 crore and a minimum area of 100,000 sq ft will be logistic infrastructure.

Importance of Logistic Sector

- **Employment**: Industry employs over 45 million people and is growing at the rate of 15% with certain sub-sectors growing at even 30-40% per annum.
- **GDP**: India spends around 14.4% of its GDP on logistics and transportation.
- **Manufacturing Sector:** Logistics sector provides efficient and cost effective flow of goods on which other commercial sectors depend

Various challenges of Logistic Sector

- **Traditionally been manpower-driven** and underleveraged by an unorganised and fragmented industry structure.
- **Transport:** Railway network is oversaturated with high freight tariff, low terminal quality and less flexibility in carrying different types of products.
  - **On Road:** High level of fragmentation of the trucking industry, multiple checkpoints (loss of time and administrative hurdles.
  - **On Port:** High turnaround times, due to inadequate depth at ports unable to attract very large vessels.
- **Storage Infrastructures:** inadequate size of warehouse, difficulty in getting land at desired location, and majority of warehouses are not leak proof.
- **Technology:** Huge transformation is needed in terms of technology like automated storage and retrieval system, online cargo solutions, GPS cargo track etc.
- **Tax:** A complicated tax regime places several challenges as payment of multiple state and Centre taxes results in considerable loss of time in transit and fragmentation of warehousing space.

Government Initiative

- **Diesel de-regulation:** logistics costs have become more accurate, with diesel prices moving in tandem with international fuel prices. This forces us to be competitive globally.
- **Logistic enhance efficiency programme:** was launched for management and development of logistic parks and reduce the cost of logistics.

Benefit of Infrastructure status

- The sector will get Infrastructure lending at easier terms with enhanced limits, access to longer duration funds, tap the external commercial borrowing route and refinance existing loans at competitive rates.
- The sector will have access to longer tenor funds from insurance companies and pension funds.

Harmonized list of Infrastructure sub-sectors

- It is meant to facilitate a coordinated approach, among agencies providing support to infrastructure, and, thus spur infrastructure development in a more optimal manner.
- inclusion of new sub-sectors proposed by a particular agency is done only after assessing the applicability of-
  - **six characteristics of infrastructure** (namely natural monopoly, high sunk costs and asset specificity, non-tradability of output, non-rivalness in consumption, possibility of price exclusion, and presence of externalities) and
  - one or more of the **three parameters** (namely its importance to the scheme of economic development, its ability to contribute to human capital and the specific circumstances under which it has developed in India)
- Currently, five broad categories include - Transport and Logistics, Energy, Water and Sanitation, Communication and Social and Commercial Infrastructure.

Impact of the challenges faced

- The logistic costs as a percentage of total product cost in India is in the range of 4-5 times that in developed countries. This is at a time when the quality of logistic services provided is not of the highest standards.
- The high level of logistics costs in the economy adversely impacts the competitiveness of the Indian economy.
- It also affects the financial well-being of the individual citizens as an addition to product costs due to inefficient logistics adds to inflation.

- **Technology initiative:** Automated storage and retrieval systems (ASRS) in warehouse and transportation, radio frequency identification (RFID) in place of bar codes, and global positioning system (GPS) for real-time tracking.
- **GST:** intended to solve the complex tax structure for logistics which would lead to efficient decision making by logistic firms about of logistics - demand, supply, near-to-customer, sourcing, transportation costs and inventory costs.

Step that can be taken

- **Coordination in infrastructure planning;** will help to reduce the high transaction costs prevalent in the economy.
- **Reforms in urban planning:** catering to urban conglomerations in terms of road and peripheral infrastructure resulting in traffic restrictions.
- **Engagement of all stakeholders:** Blueprints and policy regulations are done by few stakeholders such as government and big industries. This makes policies prone to avoidable trial and error events.
- **Investment in value addition:** dust-proofing at a storage place still does not command the kind of premium in India that it should, and as a result, the logistics service provider does not invest in such provisions.

3.13. NATIONAL POWER PORTAL (NPP)

Why in news?

Government has recently launched National Power Portal (NPP).

About it

- It is a centralized platform for **collation and dissemination of Indian power sector information,** (through GIS enabled navigation and visualization chart windows) for generation, transmission and distribution of power in India.
- NPP Dashboard would also act as the single point interface for all Power Sector Apps launched previously by the government like **TARANG, UJALA, VIDYUT PRAVAH, GARV, URJA and MERIT.**
- **Significance**: It would serve as a **single authentic source of power sector information** for the purpose of analysis, planning, and monitoring for the government and public.
- **Major stakeholders of NPP** are Ministry of Power, Central Electricity Authority (CEA), Power Finance Corporation (PFC) for Integrated Power Development Scheme (IPDS), Rural Electrification Corporation (REC) for Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY).
- **Central Electricity Authority (CEA)** is a nodal agency for NPP implementation.

3.14. GLOBAL WEALTH REPORT

Why in news?

Recently, Credit Suisse Research Institute released its Global Wealth Report 2017.

Highlight of the report

- **Global trend**
  - ✓ Total global wealth rose at a rate of 6.4%, the fastest pace since 2012 and reached $280 trillion in 2017.
  - ✓ According to it, half the world's wealth is owned by 1% world richest.
  - ✓ It reflects widespread gains in equity markets and rise in non-financial assets globally.
  - ✓ According to it, the geographical coverage of wealth growth in the first years of this century was more widespread than ever before. This benefitted all levels of society.

CHANGE IN HOUSEHOLD WEALTH BY REGION
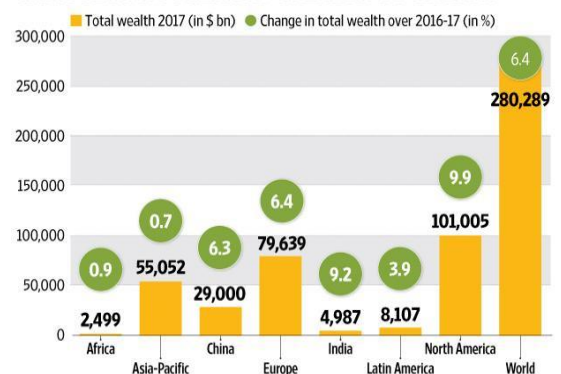
- **Indian Scenario**
  - ✓ India's total household wealth stood at $5 trillion and is home to 2,45,000 millionaires.
  - ✓ **India is 8th largest wealth gain country** Since 2000, wealth in India has grown 9.2% per annum, faster than the global average of 6%.
  - ✓ **Wealth Quality**: Personal wealth in India is dominated by property and other real assets, which make up 86% of estimated household assets.
  - ✓ **Debt situation**: Personal debts are estimated to be just 9% of gross assets, overall household debt as a proportion of assets in India is lower than in most developed countries.
  - ✓ **Persisting Inequality**: There is considerable wealth poverty in India, reflected in the fact that 92% of the adult population has wealth below $10,000 annually.
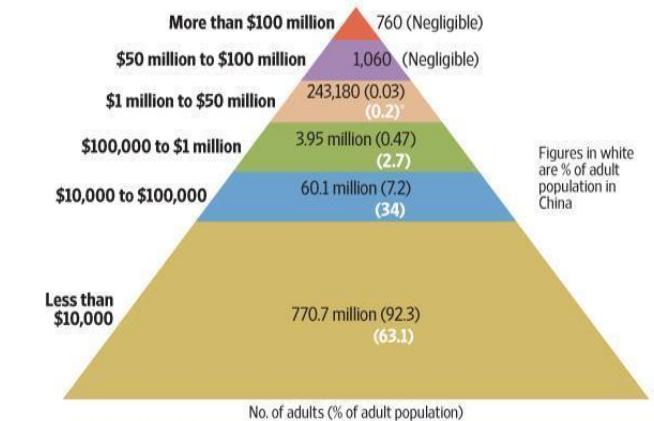
3.15. RKVY-RAFTAAR

Why in news?

Recently, government approved the continuation of Rashtriya Krishi Vikas Yojana (RKVY) as **Rashtriya Krishi Vikas Yojana- Remunerative Approaches for Agriculture and Allied sector Rejuvenation (RKVY-RAFTAAR)** for three years i.e. 2017-18 to 2019-20.

About RKVY-RAFTAAR

- **Objective:** To make farming a remunerative economic activity through strengthening the farmer's effort, **mitigating risk** and promoting **agribusiness entrepreneurship.**
- **Funding**: Funds would be provided to States as **60:40** grants between Centre and States (**90:10** for North-Eastern States and Himalayan States).
- **Funds distribution:**
  - ✓ 70% of the outlay for production growth, infrastructure and assets to states as grants based for the following activities:
    - o 50% - Infrastructure and assets
    - o 30% - Value addition linked production projects
    - o 20% - Flexi-funds which States can use for supporting any projects as per the local needs
  - ✓ 20% of outlay to **RKVY-RAFTAAR special sub-schemes** of National priorities
  - ✓ 10% of outlay for **Innovation and agri-entrepreneur development** by providing end-to-end solution and promoting skill development.

Significance

- It will incentivize states to **increase allocations for agriculture and allied sectors**

> **RKVY-RAFTAAR sub-schemes**
> - Bringing Green Revolution to Eastern India (BGREI).
> - Crop Diversification Program (CDP).
> - Reclamation of Problem Soil (RPS).
> - Foot & Mouth Disease – Control Program (FMD-CP).
> - Saffron Mission.
> - Accelerated Fodder Development Programme (AFDP).

> **About Rashtriya Krishi Vikas Yojana (RKVY)**
> - It was **launched in 2007** on the recommendation of the **National Development Council.**
> - **Aim**: To achieve 4% annual growth in agriculture sector.
> - It is a **special Additional Central Assistance scheme** to incentivise States that increase their investment in agriculture and allied sectors.
> - It **encouraged decentralized planning** for agriculture and allied sectors through preparation of **District Agriculture Plans (DAPs)** and **State Agriculture Plan (SAP)** based on agro-climatic conditions, availability of appropriate technology and natural resources to ensure accommodation of local needs, cropping pattern, priorities etc.
> - **Impact of RKVY:** It was successful in increasing **agricultural State Domestic Product (AGSDP)** during its implementation and almost all the states registered **higher value of output** from agriculture and allied activities in the post-RKVY period.

- It will help in creation of **post-harvest infrastructure** and promotion of private investment in the farm sector across the country
- It strives to strengthen farmer's efforts for **creation of agriculture infrastructure** that help in supply of quality inputs and market facilities.
- It emphasizes on **involving youth in agriculture** through various incentives, for increasing rural employment and achieving the target of doubling farmers' income by 2022.

3.16. DRAFT NORMS FOR DRONES

Why in news?

Director General of Civil Aviation (DGCA) released the Civil Aviation Requirements (CAR) for the operation of civil **Remotely Piloted Aircraft System (RPAS) or Drones** in India.

Background

- DGCA in October 2014 restricted the use of drones and unmanned aircraft system by civilians.
- Current aircraft rules also do not cover use of drones for civilian purposes as well as their sale and purchase.
- The International Air Transport Association has referred to drones as a threat in airspace and called for a greater stakeholder engagement and proper regulation to ensure safety.

Provision under Regulation

- **Definition:** A remotely piloted aircraft (RPA) is defined as an unmanned aircraft which is piloted from a remote station.
- The DCGA has divided the drones into five categories based on their **Maximum Take-Off Weight** (MTOW)
  - ✓ **Nano:** Less than or equal to 250 grams.
  - ✓ **Micro**: Greater than 250 grams and less than or equal to 2 kg.
  - ✓ **Mini:** Greater than 2 kg and less than or equal to 25 kg.
  - ✓ **Small:** Greater than 25 kg and less than or equal to 150 kg.
  - ✓ **Large**: Greater than 150 kg.
- A **Unique Identification Number** and **radio frequency tags** would be a mandatory requirement for operating drones.
- **Exemption**: Drones in nano category — weighing up to 250 grams — and those operated by government agencies would not require any permit.
- **Pilot:** The remote pilot for any drone must be at least 18 years old and has to go through a prescribed training process.
- **No Drone Zones**
  - ✓ Drones are barred from being operated within 5km of an airport, within 50km from international border and beyond 500 metre (horizontal) into sea along the coastline.
  - ✓ Drones would not be allowed within 5km radius from Vijay Chowk (in national capital), over eco-sensitive zones like national parks and wildlife sanctuaries and from a mobile platform such as a moving vehicle, ship or aircraft.
  - ✓ Due permissions would also be needed when drones are being used over densely populated areas or near an area affecting public safety or where emergency operations are underway.
- **Penalties:** Any violation of rules shall attract penal actions including penalties under the Indian Penal Code

Significance

- India will join countries that allows drones to be used for civilian applications and are expected to encourage genuine and "discourage nefarious activities".
- It is expected to spur the use of drones in a diverse range of areas such as agricultural and industrial applications, aerial photography, recreational drone racing, humanitarian assistance, surveying and eventually in delivering goods at doorsteps.

Concern

- No framework for flying an unmanned aircraft system for recreational or hobby purposes as present in USA.

- **Cumbersome process**: Every time a drone is to be operated, operator needs to obtain an air defence clearance and permission from the relevant flight information centre.
- Lacks technology that could neutralise rogue drones (Rogue drones are ones that deviate from the permitted area or those which have not taken any permission at all).

3.17. GEOGRAPHICAL INDICATION

Why in news?

Recently, Geographical Indication (GI) registry granted GI tag to:

- Stone sculptures of Mamallapuram
- Etikoppaka toys.
- Banglar rosogulla (West Bengal).

About Stone sculptures of Mamallapuram

- **Exquisite rock-sculpting techniques** exhibited in Mahabalipuram/ Mahabalipuram date back to early 7th century during the period of **Pallavas.**

A GEOGRAPHICAL INDICATION (GI) is primarily an agricultural, natural or a manufactured product (handicrafts/industrial goods) originating from a definite geographical territory

Tulaipanji rice of WEST BENGAL

Banaganapalle Mangoes of ANDHRA PRADESH

DARJEELING Tea

NAGPUR Orange

KASHMIR Pashmina

Geographical Indications granted by Indian Patent Office in 2017-18

TIRUPATHI Laddu

KANGRA Paintings

Other 5 PRODUCTS that received this tag this YEAR

- Pochampally ikat of TELANGANA
- Gobindobhog Rice of WEST BENGAL
- Durgi Stone Carvings
- Etikoppaka Toys of ANDHRA PRADESH
- Chakshesang Shawl of NAGALAND

2016-17: 33 item got GI registration

- It includes cave architecture, rock architecture, structural temples, open sculptures, relief sculptures and painting/portrait sculptures.
- It is **characterised** by a wide forehead, sharp nose, long eyes, hanging ears and oval shaped face, usually with double chins.
- Male and female sculptures are slender and curvaceous to look at, and symbolise perfection in terms of beauty.
- Mamallapuram sculptors still use **hammer-and-chisel technique** for carving and follow the time-consuming process enunciated in various **Shilpa Shastras.**
- Mamallapuram was named after the famous title of Narasimhavarma Pallava in the mid-seventh century.

About Etikoppaka toys (Etikoppaka Bommalu)

- These toys are made in **Etikoppaka region of Andhra Pradesh** and are made with lacquer color.
- The toys are unique in shape and for the material used.
- They are made from the **soft wood of Ankudi Karra (Wrightia tinctoria) tree**
- The toys are painted with **natural dyes**, which is prepared from seed, lacquer, bark, roots and leaves. The dyes are non-toxic
- The art of making such toys is known as **Turned Wood Lacquer Craft**.
- According to the artisans, the **art is more than 400 years old** and it has been traditionally handed over to them by their ancestors through generations.

Issue with GI provision in India

- **It leans heavily on Document proof:** Proof of origin is a mandatory criterion for registering GIs in India whereas in many parts of India (especially tribal) , provision regarding the origin are not written rather they are recited, therefore making it extremely difficult in gathering documentary evidence as proof of origin to get GI tag.
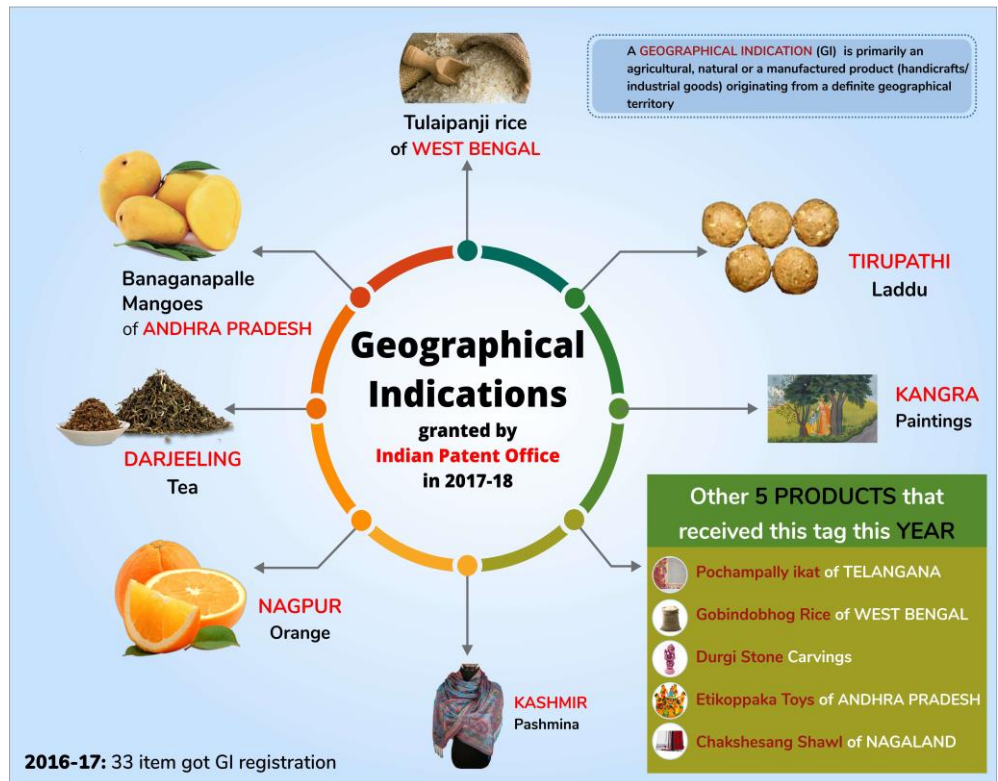
- **It only protects the name or indication**: GI act does not protect knowledge or technology of production, which means that same product can be produced and marketed with other name, defeating the whole purpose of the act.
- **Ambiguity in the definition**: Act does not distinguish between real producer, retailer or dealer. As a result the benefits of the registration may not reach to the real producer.
- **Lack of assessment by group applying for GI** about the commercial prospect of a GI product in the domestic and international markets or the potential of such registration in contributing towards the future growth of the product as well as the socio-economic implication for the communities involved in the supply chain.

Geographical Indications of Goods (Registration and Protection) Act, 1999
- As a member of the World Trade Organization (WTO), India enacted the Act to comply with the Agreement on Trade-Related Aspects of Intellectual Property Rights **(TRIPS).**
- GI is covered as element of intellectual property rights (IPRs) under **Paris Convention for Protection of Industrial Property.**
- The Act is administered by the **Controller General of Patents, Designs and Trade Mark**s, who is also the Registrar of Geographical Indications.

How are GI protected
- **Sui Generis Systems** (i.e. special regimes of protection)
- Using Collective Or Certification ; and
- Methods focusing on business practices, including administrative product approval schemes.

What is GI tag?
- It is an indication that is definite to a specific geographical territory. It is used for agricultural, natural and manufactured goods having special quality and established reputation.
- For a product to get the tag, it needs to be produced or processed or prepared in that region.
- The registration of a GI **is valid for 10 years** after which it needs to be renewed.
- GIs **support local production** and are an important economic tool for the uplift of rural and tribal communities.
- GI is a **collective right.** Producers can use the collective GI mark to commercially exploit the products.

Way Forward

- **Flexibility in rules**: In a particular instance, the GI Registry might consider etymology in establishing proof of origin.
- **Defining clear geographical boundaries** to establish legitimacy of the product.
- need to **develop proper channel of communication** between all stakeholder to provide quality product to the consumers and socio-economic benefits to the producers

3.18. GLOBAL FINANCIAL DEVELOPMENT REPORT

Why in news?

- Recently, the **World Bank's Global Financial Development Report** was released.

More about the Report

- The global financial crisis of 2008 has led to a reevaluation of the potential benefits and costs of bank globalization because many observers perceive global banks to have been mainly responsible for the transmission of shocks across borders during the recent financial crisis
- According to the World Bank's report, restrictions posed by developing economies are hampering prospects of growth by limiting the flow of much needed finance to firms and households.
- It focuses on three important developments that are shaping international banking:
  - **Rise of the South-South Banking** –
    - The increasing participation of developing countries in global financial transactions has allowed these economies to diversify their investments and widen their available funding choices.
    - Relative to a bank from the North, South–South banks invest in countries within their region and tend to be more familiar with the cultural, linguistic, legal, and institutional environment of the host country.

- However, regionalization by definition means less risk sharing, questions remain whether there is an optimal mix of foreign bank entries from global as well as regional banks, so as to maximize the potential benefits.
  - o **Shift toward alternative sources of funding** –
    - Capital markets may have played the role of a spare tire for publicly listed firms, by providing an alternative source of external finance and better information when the functioning of the banking system was impaired during the crisis**.**
    - Countries might reduce contagion risks by diversifying the sources of finance and, to the extent possible, having more complete markets, including equity markets. At the same time, it is important to jointly analyze the different types of financing.
  - o **Rise of fintech** –
    - Technology could have major implications for access, efficiency, and financial sector stability. Although, at first, fintech helped financial institutions speed up transactions at a lower cost, the most recent technologies encompass a variety of services, such as data security, risk management, mobile banking and alternative currencies.
    - Policy makers need to constantly monitor and adapt proper regulatory frameworks that keep pace with the speed at which financial innovations occur.

Conclusion

- Foreign bank entry, if done right, can encourage efficiency and growth. However, for it to be consistent with promoting overall development, policymakers need to both avoid concentration as well as put in place adequate regulations and policies to effectively promote greater financial inclusion.
- Although openness to international banking is no guarantee of financial stability, its potential benefits include the introduction of financial innovations and sophisticated financial instruments by foreign financial firms, added depth in domestic financial markets due to foreign inflows, and more efficiency in the domestic banking sector through increased competition.

3.19. PUBLIC UTILITIES SERVICES

Why in news?

- Recently, Ministry of Labor and Employment had extended the Public Utility Services (PUS) status of the **Manufacturing of Alumina and Aluminium' and 'Mining of Bauxite'** for a period of six month.

Public Utility Service (PUS)

- It has been defined **and safeguarded** against the strikes and lockout under the **Industrial Disputes Act, 1947.**
- PUS are listed as facilities required to serve the necessity of public at large, for e.g. transport (other than road transportation), defence establishments, cotton service, various mining and minerals industries etc.
- If any service is listed under the PUS then a six week notice have to serve by the Employee and Employer to each other in case of strike and lock-out respectively.
- Moreover, the period for the declaration of PUS on any service/**industry shall not exceed six months in the first instance**. However, it may be extended from time to time, by any period not exceeding six months.

> **Related information**
> - Strikes mean a cessation of work by a body of persons employed in any industry. Whereas, lockout is the cessation of work by the employer.
> - **Industrial Dispute Act 1947 was** enacted to short coming of **Trade Dispute Act 1929** such as absence of institutional mechanism to deal with the dispute/disagreement between employee and employer.
> - Similarly, under **Essential Service Maintenance act 1968,** complete ban on strikes and lockout can be imposed on listed essential services.

3.20. AUDIT OF AVIATION SECTOR IN INDIA

Why in news?

Recently ICAO concluded audit of aviation sector in India and rated the regulatory mechanism 'satisfactory'

Details of the Universal Safety Oversight Audit Program (USOAP)

- The audit was conducted by **International Civil Aviation Organisation** to study various aspects of the sector such as operations, airworthiness, air navigation, aerodromes, organisational structures etc.
- The audit was significant for India as it comes at a time when Indian Civil Aviation sector has emerged as one of fastest growing industries in India and is expected to displace UK from third place in 2026.
- The present audit has given the feedback as being **'satisfied'** of the regulatory mechanisms. For the audit India had made preliminary preparations such as hiring flight operation inspectors, aligning its rules with ICAO norms, certifying flight examiners etc.
- In 2012, ICAO's audit has placed India amongst the worst 13 performing countries as a result of which Indian Airlines were not allowed to add new routes.

International Civil Aviation Organisation
- It is a specialised agency of the United Nations which was established in 1944 to manage the administration and governance of the Convention on International Civil Aviation (Chicago Convention).
- The **Chicago Convention** is a convention on international Civil Aviation for safe and orderly development of international air transport services, based on equality of opportunity.

Universal Safety Oversight Audit Program
- USOAP was launched in 1999 regular and mandatory audits of ICAO Member States' safety oversight systems. The audits focus on State's capability in providing safety oversight by assessing various safety measures put in place by the State.

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4. SECURITY

4.1. ISLAND DEVELOPMENT AGENCY

Why in news?

Recently Home Minister reviewed the development plans for 9 islands under the aegis of Island Development agency (IDA).

More about the news

- IDA was constituted in June 2017 for the holistic development of islands. It is chaired by Union Home minister and includes secretaries of various ministries.
- The IDA had identified 10 islands for development which include 5 islands in A&N Islands (i.e. Smith, Ross, Long, Avis and Little Andaman) and 5 in Lakshadweep (i.e. Minicoy, Bangaram, Thinnakara, Cheriyam, Suheli).
- It will undertake holistic development in the project islands after giving due consideration to unique maritime and territorial bio-diversity of the islands.

> **Key facts about India's island Territories**
> **Andaman and Nicobar Islands**
> - They comprise 572 islands and called **'India's Gateway to the East'** as they are just 75 nm from the tip of Indonesia.
> - Duncan passage separates Little Andaman from South Andaman and the Ten Degree Channel separates Great Andaman from the Nicobar group in the south.
>
> **Lakshadweep Islands**
> - It constitutes Lakshadweep, Minicoy and Amindivi archipelago group of coral islands in the Arabian Sea
> - The island groups consist of 12 atolls, three reefs and five submerged banks and of the 36 islands only 10 are inhabited, and many sea farers come from the islands.

- Further development of tuna fishing industry and community based tourism to boost livelihood options and building a sustainable approach for thriving maritime economy of project islands is also envisaged.

Importance of Islands Development for India

- **Strategic Maritime Role**: India being the largest maritime power in the Indian Ocean Region (IOR) has the responsibility to contribute to the safe passage of trade and energy needs of the world, in the sea lines of communications (SLOCs) passing through 10 degree channel and straits of Malacca, Hormuz and Bab El Mandeb.
- **International cooperation:** A&N islands are an important element in "India's Act East Policy". Further they have important role to play in building up defence linkages with other countries through naval exercises, Humanitarian relief and Disaster development etc. For e.g. Exercise Milap, Malabar, HADR etc.
- **Economic Importance:** Indian Islands have the potential for development of refineries and tourism with proper investment. Apart from this they also extend our Exclusive Economic Zone and help providing variety of natural and maritime resource whose advantage can be taken.
- **Regional Connectivity and trade:** Indian islands can have deep water ports and large bays for ships to anchor can also be developed which will lead to increased trade, more habitation, decrease poaching and infiltration by non-state actors.
- **Blue Economy:** Island development can be central to our vision of Blue economy which encompass Green Economy or environmental sustainability and Coastal Economy i.e. complementarity between coastal states and island development which are further key to Sustainable use of the Oceans and maritime resources (SDG 14).

Challenges

- **Natural Disasters:** The islands are prone to Cyclone (e.g. OKCHI cyclone over Lakshadweep), floods, storm surges and Tsunami which cause loss of lives and property and damage to environment in the region.
- **Climate Threats:** Global warming and sea level rise have been contributing to sinking of and reduction of land area on islands. Along with this Ocean acidification has also contributed to coral bleaching in Indian island territories.
- **Environmental and tribal development challenge** also ensue as A&N islands are home to Great Andamanese, Onges, Jarawas and Sentinelese tribal groups which mainly reside in the environmentally sensitive zones in the area.

- **Chinese expansion** into Indian ocean through String of pearls, setting up of military base in Djibouti and routine deployment of submarine pose a broader security threat to India especially to island groups as they are currently vulnerable from security perspective
- **Basic Services:** Significant amount of work is still required to provide electricity and water to elevate the conditions of islands.
- **Logistical issues:** Road building, airstrip construction, and even the building of jetties has been slow.
- **Non-Conventional Threats: Piracy** on the high seas, illegal migration from littoral states of the Bay of Bengal, poaching of marine and forest resources, arms and narcotics smuggling through uninhabited islands also pose a threat in island territories.

Steps taken by India

- To tackle the threats of terrorism and piracy India has established a Far Eastern Naval command and a **tri-service Andaman and Nicobar military Command**.
- Tsunami Early warning system and similar systems for cyclone have been put in place.
- **SAGARMALA initiative** envisages port modernisation and efficiency improvement not only along coasts but in islands.
- **A Financial package** of 10000 crore was approved in 2015 to boost Digital connectivity through optical fibre cable, physical connectivity through roads, rail and bridges. Further plans to establish naval air stations at Shibpur and Campbell Bay, ship-building and ship-repairing facilities at A&N islands are also on the anvil.
- In 2016 India-Japan agreed on bilateral cooperation to "develop smart islands".
- **NITI Ayog** is preparing guidelines for promoting investment through PPP projects and thus boosting private sector participation in Island development.

4.2. ENHANCING SECURITY OF BAY OF BENGAL

Why in news?

Recently, Sagar Kavach exercise was conducted by Odisha and West Bengal in Bay of Bengal.

Importance of Bay of Bengal in Indian Ocean

- **Regional Geopolitics** – Bay of Bengal is one of the largest and busiest chokepoints in the world that connects Indian Ocean and Pacific Ocean. It comprises of **22% of the global population** and lies in the centre of two important economic blocks **SAARC and ASEAN**.

  The region also stays in attention due to the growing Chinese influence in the region. Almost one-quarter of world's traded goods and about 80% of energy requirement of China, South Korea and Japan flows through Strait of Malacca.

> **Details of Sagar Kavach Exercise**
> - The exercise aimed **to assess the real time capabilities and efficacies** of various National and State agencies such as Indian Navy, Marine Police Force, and Indian Coast Guard etc. along the 630 km long coast line.
> - This will be the first joint exercise between West Bengal and Odisha in which various drills such as **simulated terror attack and defence** will be carried on.
> - The main objective of the drill is to **re-evaluate existing Standard Operating Procedures** (SOP) mechanisms.

- **Resource Exploration-** It is rich in natural resources such as petroleum, hydrocarbons, poly metallic nodules, placer deposits of heavy metals etc. It is joined with Andaman and Nicobar Sea and Malacca straits are the link between south east and south Asia which is a major source of oil and natural gas producing area.
- **Conservation-** The places such as Andaman and Nicobar Islands, Palk Strait etc. are one of the high biodiversity areas which are crucial to conservation of biodiversity. The region has high potential for carbon sequestration due to presence of Mangroves (Blue Carbon).
- **Maritime Security-** The region has been lately very active as far as security engagements are concerned such as Malabar Exercise. The BoB is also significant to tackle crime related to human trafficking and terrorism as well.
- **Development and Economic Integration-** The BoB littoral states are mostly developing nations which have the lowest level of economic integration. At present less than 2% of world trade and very limited investment take place in the region.

- **Disaster Management –** The region is highly prone to natural disasters such as cyclones. It is a strategically important area for **Disaster Risk Reduction** through monitoring and Early Warning Systems and engaging with other countries through regional exercises such as **BIMSTEC DMEx 2017.**

Role of Eastern States in Securing Bay of Bengal

- The terror attack in Mumbai (2011) through sea routes even after the presence of Western Naval Command has made it important to **secure the sea line of communication** against any such threats in future.
- The Eastern Coastline at present has only **Vishakapatnam and Chennai** with **adequate naval presence** and the rest of the coastline further northwards remains vulnerable to attacks. E.g. the recent terror activities in Odisha since 2015, has brought the region on the global terrorist groups.
- States such as Odisha have significant potential to man the coastline because of it wide line of sights covering Bay of Bengal along with ideal temperature throughout the year and vast natural resources to exploit.
- They also provide a short aerial route to Port Blair and with a dedicated force in this sector will provide quality protection to national assets and promote national interest in the neighbourhood.

Way Ahead

- The conjunction between **the Navy, Coast Guard and Marine police** should be increased. **Rapid Reaction Force** should be established which should be active in the Bay of Bengal region.
- It is important to **increase the maritime security arc** in Bay of Bengal beyond existing sectors till Myanmar, Thailand and Strait of Malacca.

4.3. BRAHMOS

Why in news?

- The **air-launched version of the BrahMos was successfully tested** for the first time from a modified **Su-30MKI fighter aircraft of the Indian Air Force (IAF).**

About the Missile

- It is a joint venture between **India's DRDO and Russia's NPO Mashinostroyeniya (NPOM) and is named after the Brahmaputra and Moscowa rivers.**
- The first stage of the system takes the missile to supersonic speed and the second stage with liquid ramjet accelerates it to 2.8 mach.
- **Brahmos ALCM (Air Launched Cruise Missile),** is the heaviest weapon to be deployed on India's Su-30.
- The land and sea variants of Brahmos are already operational with the Army and the Navy.

BrahMos Cruise Missile

Air-launched variant tested

- BrahMos, the world's fastest supersonic cruise missile, successfully flight-tested for the first time from a Sukhoi-30MKI fighter of the Indian Air Force against a sea based target in Bay of Bengal
  - The Missile is now capable of being launched from land, sea and air, completing the tactical cruise missile traid for India

Technical Specifications

1 Altitude Cruise: 15km Terminal: 10-15m
2 Warhead mass 200-300kg
3 Maximum Range 400+km
4 Velocity Mach 2.8
5 Weight 2.5 tonnes

SPECIAL FEATURES

- Universal for multiple platforms
- "Fire and Forget" principle of operation
- High supersonic speed all through the flight
- Long flight range with varieties of flight trajectories
- Low radar signature
- Shorter flight times leading to lower target dispersion and quicker engagement
- Pin point accuracy with high lethal power aided by large kinetic energy on impact

Compared to exixting state-of-the-art subsonic cruise missiles, **BrahMos** has

- 3 times more velocity
- 2.5 to 3 times more flight range
- 3 to 4 times more seeker range
- 9 times more kinetic energy

Significance

- With this test launch, India becomes the first country to have the capability to have a multi-platform weapon.
- It greatly enhances India's strike range making it capable of carrying out an attack from outside the lethal engagement zone of the terminal weapon systems.
- It can be used for multi-mission roles, including precision strikes on terror camps across the border as well as against high value naval targets in the Indian Ocean.

- **Cruise Missile:** A cruise missile is an unmanned self-propelled guided vehicle that sustains flight through aerodynamic lift for most of its flight path. They fly within the Earth's atmosphere and use jet engine technology.
- **Ramjet:** A ramjet engine does not have any turbines unlike the turbojet engines. It achieves compression of intake air just by the forward speed of the air vehicle.
- **Fire and Forget:** It means the missile guidance does not require further guidance after the launch and still hit the target without the launcher being in line-of-sight of the target.

4.4. SAMPRITI 2017

Why in news?

Recently SAMPRITI 2017 was held in Mizoram.

Exercise SAMPRITI 2017

- It is a **bilateral Indo-Bangladesh exercise** aimed at **strengthening and broadening** the aspects of **interoperability and cooperation** between the Indian and Bangladesh Armies.
- The Exercise was seventh in the series and had 2 distinct components - **Command Post Exercise (CPX) and Field Training Exercise (FTX)**.
- The continued exercise between both the countries is symbolic of **the growing maturing relationship** and also **building trust and confidence** between both Armies.

4.5. NIRBHAY SUPERSONIC CRUISE MISSILE

Why in news?

Recently, DRDO successfully test fired NIRBHAY missile.

About the Missile

- **NIRBHAY** is India's first indigenous **Long Range Sub-Sonic Cruise Missile,** developed and designed by Defence Research and Development Organisation (DRDO).
- It can carry a warhead of 200 kg to 300 kg at a speed of 0.6 to 0.7 Mach with a launch weight of about 1500 kg.
- It can avoid detection as it has ability to cruise at heights as low as 100 m.
- It is powered by solid rocket motor booster and has a range of 1000km.
- The successful development would provide a definite boost to **armed forces, indigenous defence industry and India's capability to design and develop lethal weapons** of strategic importance.
- With the successful launch of NIRBHAY, India joins the select league of nations that possess the ability to make sub-sonic cruise missile.

4.6. INTERNATIONAL MULTILATERAL MARITIME SEARCH AND RESCUE EXERCISE

Why in news?

Recently, first ever IMASAREX was held in Bangladesh.

International Multilateral Maritime Search and Rescue Exercise

- It is a first ever sea based exercise under the aegis of **Indian Ocean Naval Symposium** which is currently chaired by Bangladesh with participation of Indian Ocean Littoral states in Bay of Bengal.
- IMMASAREX is significant for the fact that along with India, China will also participate in the backdrop of skepticism of China's activities in Indian Ocean and its base in Djibouti.

Indian Ocean Naval Symposium
- It is a **voluntary initiative** that seeks to increase **maritime co-operation** among navies of the **littoral states of Indian Ocean Region** by providing an open and inclusive forum for discussion of regionally relevant maritime issues.
- The inaugural IONS was held in 2008 under chairmanship of the Indian Navy.
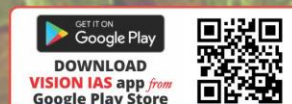
5. ENVIRONMENT

5.1. NEW GUIDELINES ON COMPENSATORY AFFORESTATION

Why in News

- Recently, Ministry of Environment, Forest and Climate Change (MoEF&CC) issued guidelines specifying criteria for suitability and identification of land bank for compensatory afforestation (CA).

Compensatory afforestation

- It refers to the afforestation and regeneration activities carried out as a way of compensating for forest land which is diverted to non-forest purposes.
- **The Forest (Conservation) Act, 1980** provide that whenever a forest land is to be diverted for non-forestry purposes, the equivalent non forest land has to be identified for compensatory afforestation and funds for raising compensatory afforestation are to be imposed.
- The act further requires that:
  - o the non-forest land for CA are to be identified contiguous to or in the proximity of Reserved Forest or Protected Forest, as far as possible.
  - o in case, non-forest land for CA is not available in the same district, non-forest land for CA is to be identified anywhere else in the State/Union Territory.
  - o If non forest land is unavailable in the entire State/ UT, funds for raising CA in double the area in extent of the forest land diverted need to be provided by the user agency on the basis of the rates fixed by the State Forest Department.

> **Compensatory Afforestation Fund Act 2016**
> - It established National Compensatory Afforestation Fund (NCAF) under the public account of India and State Compensatory Afforestation Funds under public accounts of states.
> - These funds will receive payments for:
>   - o compensatory afforestation,
>   - o net present value of forest (NPV),
>   - o Other project specific payments.
> - The National Fund will receive 10% of these funds, and the State Funds will receive the remaining 90%.
> - The funds will be non-lapsable and interest bearing by the rate decided by central government on a yearly basis.
> - Act provides statutory status for two ad-hoc institution, namely;
>   - o **National** Compensatory Afforestation Fund Management and Planning Authority **(CAMPA)** for management and utilisation of NCAF.
>   - o State Compensatory Afforestation Fund Management and Planning Authority for utilisation of State Compensatory Afforestation Fund.
>   - o The act also seeks to provide for constitution of a multi-disciplinary monitoring group to monitor activities undertaken from these funds.
> - The act also provides for annual audit of the accounts by the Comptroller and Auditor General.

New Guidelines

- It mandates that states and UTs shall create land bank for CA for speedy disposal of the forest clearance proposals under FC Act 1980.
- The states shall also set up committee with principal chief conservator of forests, chief wildlife warden and representatives of revenue department for expediting creation of land banks in a systematic manner.
- The state governments shall formulate CA scheme including activities like soil and moisture conservation, regeneration cleaning, silvicultural activities and shall ensure maintenance of these plantations for a period of seven to 10 years as per requirement.
- It stipulates that for CA the number of plants to be planted over CA land shall be at least 1,000 plants per hectare of forest land diverted. However if 1,000 plants cannot be planted on the non-forest land identified for CA, then the balance will be planted in degraded forest land.

Note: For more Information on Land Bank, refer October CA 2017.

5.2. BAMBOO IS NO LONGER A TREE

Why in News?

- Recently, President has cleared an ordinance amending the Indian Forest Act (IFA) 1972, to exempt bamboo grown in non-forest areas from the definition of trees.

More on News

- The amendment aims to **exempt bamboo grown in non-forest areas** from definition of tree, thereby dispensing with the requirement of felling/transit permit for its economic use.
- Bamboo, though, taxonomically a grass, was defined as a tree under the Indian Forest Act, 1927 which meant that the felling and transit of bamboo grown on forest as well non-forest land for economic use required permit. This was a major impediment for bamboo cultivation by farmers on non-forest land.
- However, bamboo grown in the forest areas shall continue to be governed by the provisions of Indian Forest Act, 1927.

Benefits of amendment

- It will promote cultivation of bamboo in non-forest areas to achieve twin objectives **of increasing the income of farmers**, especially in North-East and Central India and also **increasing the green cover of the country**.
- It will create a viable option for **cultivation in 12.6 million hectares of cultivable waste land** by **removing the legal and regulatory hardships** being faced by farmers and private individuals.
- The amendment will unleash the potential of bamboo in terms of **rural and national economy** apart from **ecological benefits** such as soil-moisture conservation, landslide prevention and rehabilitation, conserving wildlife habitat, enhancing source of bio-mass, besides serving as a substitute for timber.

> **National Agro-Forestry & Bamboo Mission (NABM)**
> - It envisages promoting holistic growth of bamboo sector by adopting area-based, regionally differentiated strategy and to increase the area under bamboo cultivation and marketing.
> - Steps have been taken to increase the availability of quality planting material by supporting the setting up of new nurseries and strengthening of existing ones.
> - To address forward integration, the Mission is taking steps to strengthen marketing of bamboo products, especially those of handicraft items.
> - It is being implemented by the Department of Agriculture & Cooperation (DAC), Ministry of Agriculture as a sub scheme under the Mission for Integrated Development of Horticulture (MIDH).

- It will **encourage farmers** and other individuals to take up plantation/ block plantation of suitable bamboo species on degraded land, in addition to plantation on agricultural land and other private lands **under agroforestry mission**.
- It will **enhance supply of raw material** to the traditional craftsmen of rural India, bamboo based/ paper & pulp industries, cottage industries, etc.
- Besides **promoting major bamboo applications** such as wood substitutes and composites like panels, flooring, furniture and bamboo blind, it will also help industries such as those dealing with food products (bamboo shoots), constructions and housing, bamboo charcoal etc.
- It will help to **fulfill domestic demand and reduce the imports**. Though India has 19% share of world's area under bamboo cultivation (India is the world's second largest bamboo producer), its market share in the sector is only 6%. In 2015, India imported about 18.01 million cubic meters of timber and allied products worth Rs 43000 crores.
- The amendment will greatly aid the **National Agro-Forestry & Bamboo Mission (NABM).**

5.3. CLIMATE CHANGE PERFORMANCE INDEX (CCPI)

Why in news

Recently, India has been ranked **14th in Climate Change Performance Index (CCPI)**.

Highlight of index

- India improved it's ranking from 20th in 2017 to 14th, on account for reducing greenhouse gas (GHG) emissions and adopting more clean sources of energy.
- It noted that with **low per capita emissions**, India's emissions level is well-below-2°C target; however **overall emissions** have increased relatively strongly over the last year, holding India's further improvement

> **Climate Change Performance Index (CCPI)**
> - It is issued by Germanwatch, the New Climate Institute, and the Climate Action Network.
> - It evaluates countries ambition and progress in the field of climate policy.
> - The report ranks **56 countries and the European Union,** which together are responsible for 90% of global greenhouse gas emissions.
> - Countries are ranked across **four categories — Greenhouse Gas Emissions, Renewable Energy, Energy Use, and Climate Policy.**

- in Index.
- Top three positions on the Index still **remain unoccupied** as no country is currently on a Paris Climate Agreement-compatible pathway.
- **Positive side**: Index claim of decreasing growth rates in CO2 emissions globally on account of encouraging growth in renewable energy globally.
- **Concern:** Growing oil and gas consumption is still higher than the reduction in coal use globally and also there is a significant gap in mid-term and long-term ambition of the evaluated countries.

5.4. SULPHUR DIOXIDE EMISSIONS IN INDIA

Why in news

According to a recent study, India's sulphur dioxide (SO2) emission is among highest in world.

Highlight

- **Increasing proportion of SO2:** Over the last 10 years, India's SO2 emissions have spiked by 50% and it could become the world's largest emitter of the toxic air pollutant.
- **Citizen at risk**: Around 33 million Indians live in areas with substantial sulphur dioxide pollution – a number which has doubled since 2013. This might also increase with growing demand of energy.
- **Major reason**: India has been releasing the harmful pollutant by burning coal – which contains about 3% of sulphur – to generate electricity. The country produces more than 70% of its electricity from coal.

Way Forward

- **Learning From China**: China has reduced SO_2 emissions by 75% over the last 10 years with efficient power plants and strict emission-reduction standards.
- **Other Steps**: Countrywide emission-monitoring stations, switching to other sources of energy and installation of pollution abatement equipment in thermal power plants, such as flue-gas particulate collectors, flue-gas desulphurization (FGD) system and nitrogen oxide control devices.

> **About Sulphur Di-oxide (SO2)**
> - It is a colorless reactive gaseous air pollutant with a pungent odor.
> - It impacts visibility and causes haze.
> - **Natural Sources:** Sulphur dioxide is naturally produced by volcanoes.
> - **Man-made Sources**: Burning fuels – coal, oil and gases containing sulphur – and by smelting metals like copper, zinc, lead & nickel and motor vehicle emissions.
>
> **Impact**
> - **Acid Rain:** When sulfur dioxide combines with water and air, it forms sulfuric acid, which is the main component of acid rain. It can cause **deforestation, acidify waterways** to the detriment of aquatic life, **corrode building materials & paints** etc.
> - **On health**: It affects human respiratory system and makes breathing difficult. Children, elderly, and those who suffer from asthma are particularly sensitive to effects of SO2.
> - **Other health effect** includes irritation in eyes, coughing, mucus secretion and chronic bronchitis.

> **Government Action on SO_2**
> - It's one of the pollutants being measured under **Air Quality Index.**
> - Increasing **cess on coal** production to Rs 400 per tonnes.
> - Implementation of **Bharat Stage Norms**
> - **Emission norms for Thermal power plant (2015):** It direct them to reduce emission of PM 10, SO2 and oxide of nitrogen.

5.5. UN EMISSION GAP REPORT 2017

Why In news

Recently, eighth edition of **UN Environment's Emissions Gap report** was unveiled.

Highlight

- **Insignificant Commitment:** INDC pledges submitted by countries to reduce current emissions are only about one-third of what is needed to prevent catastrophic temperature increases by "at least" 3°C from pre-industrial levels by the year 2100.

> **Emission Gap report**
> - It focuses on the "gap" between the emissions reductions necessary to achieve the agreed targets at lowest cost and the likely emission reductions from full implementation of the Nationally Determined Contributions (NDCs), which form the foundation of the Paris Agreement.
> - It is prepared by **United Nations Environment Programme (UNEP).**

- **Greenhouse emissions:** Though the total global greenhouse gas emissions continue to increase, the rate of growth has decreased over the past few years.
  - Global CO2 emissions from fossil fuel use and cement production remained stable for the second year in a row in 2016.
  - Reduced growth in coal use since 2011, primarily in China and secondarily in the United States, has played a key role in the recent slowdown in the growth of global CO2 emissions.
- **Effect of short-lived climate pollutants (SLCP):** SLCP include a variety of gases that have short-term warming effects often in excess of CO2, but don't stay in the atmosphere as long. These include methane, HFCs, black carbon (soot), tropospheric ozone etc.
  - It has been estimated that SLCP mitigation has the potential to avoid up to 0.6°C of warming by mid-century while aggressive CO2 mitigation in a comparable scenario leads to less than half as much near-term reduction in warming.

MAJOR STRATEGIES FOR NEGATIVE EMISSION TECHNOLOGIES

NATURAL Forestry / Agricultrue

- **Afforestation/ Reforestation** Tree growth takes up CO_2 from the atmosphere
- **Biochar** Partly burnt biomass is added to soil absorbing additional CO_2
- **Soil carbon sequestration** Land management changes increase the soil carbon content, resulting in a net removal of CO_2 from the atmosphere
- **Other Land-use/ Wetlands** Restoration or construction of high carbon density, anaerobic ecosystems

◆ Less costly   ◆ Closer to deployment   ◆ More vulnerable to reversal

COMBINED Natural + Technological

Bioenergy with Carbon Capture & Storage (BECCS) Plants turn CO_2 into biomass that fuels energy systems; CO_2 from conversion is stored underground.

TECHNOLOGICAL Energy / Industry

- **Accelerated Weathering** Natural minerals react with CO_2 and bind them in new minerals.
- **Direct Air-Capture** CO_2 is removed from ambient air and stored underground.
- **Ocean Alkalinity Enhancement** Alkaline materials are added to the ocean to enhance atmospheric drawdown & negate acidification
- **CO_2 to durable carbon** CO_2 is removed from the atmospher and bound in long-lived materials

◆ More costly   ◆ Greater R&D needs   ◆ Less vulnerable to reversal

- **Exploring "negative emission technologies":** It is first time that report explores removing carbon dioxide from the atmosphere as an additional way to mitigate climate change, over and above conventional abatement strategies.(see infographic)
- **Emphasis on certain Sectors:** Cost-effective measures in six sectors viz. agriculture, forestry, buildings, energy, industry, and transport, could reduce emissions by up to 36 $GtCO_2e$ a year by 2030,
- **Committed action from G20 countries** as they collectively generate around 75% of GHG emissions. Their success in implementing (or exceeding) their NDC pledges will have a major impact on the achievement of the global temperature goals.
  - It has pointed that three of the G20 parties — China, the EU, and India — are on track to meet their Cancun climate pledges (In Cancun, Mexico, in 2011, nations had agreed to GHG emission cuts ahead of 2020).
- According to it, to meet climate targets 80 % of the world's coal reserves along with approximately 35% of oil reserves and 50% of gas reserves need to remain in the ground.
- **It recognizes the role of non-state actor** like action by cities, states, provinces, and non-state actors like corporations in reducing emission intensity.
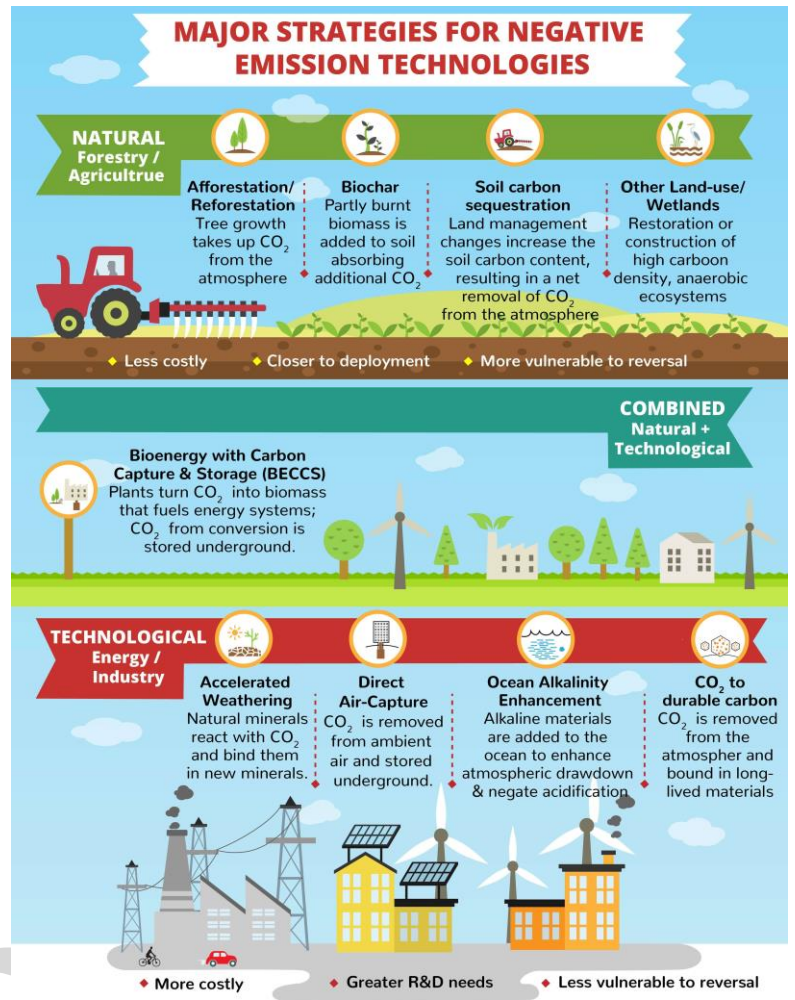
5.6. DELHI SMOG

Why in news

Recently, NCR experienced "**severe**" **levels of pollution on Air Quality Index.**

Highlight

- PM2.5 concentrations in New Delhi reached more than 1,200 micrograms per cubic meter, 48 times the guideline value established by the World Health Organization

- Indian Medical Association termed it as a **"medical emergency",** equating it to smoking 50 cigarettes a day.

Reasons behind Delhi's air pollution

- During winter season in Delhi, there are two winds — one carrying pollutants from stubble burning in Punjab and the other bringing in moisture from Uttar Pradesh — that collide and get locked, which leads to the formation of smog.
- In Delhi, the ground-level ozone and PM 2.5 play the most significant role in formation of smog.
- According to a study by the **System of Air Quality and Weather Forecasting and Research** (under the Ministry of Earth Sciences) and **India Meteorological Department** (IMD) "**multi-day dust storm**" in Iraq, Kuwait and Saudi Arabia was the main cause of Delhi's smog between November 6 and 14.
- **Burning of paddy stubble in Punjab and Haryana**: Approximately 35 million tonnes of crop are burn by the farmers in these states, which is increasing on year basis.
- **Large scale construction activities in Delhi-NCR** are major source of dust particle in air.
- **Other major reason includes:** Vehicular emission, Industrial pollution, garbage dumps etc.

Air Quality Index (AQI)

Is a number used by government agencies to characterize the quality of the air at a given location.

Air Quality Index Values When the AQI is in this range...	Levels of Health Concern ...air quality conditions are..	Colors ..as symbolized by this color
0 to 50	☺ Good	Green
50 to 100	☺ Moderate	Yellow
101 to 150	☹ Unhealthy for Sensitive Groups	Orange
151 to 200	☹ Unhealthy	Red
201 to 300	☹ Very Unhealthy	Purple
301 to 500	☹ Hazardous	Maroon

About Smog

- It is a result of a photochemical reaction of sunlight with pollutants that have been released into the atmosphere.
- It is a **result of various factors**: geography of the place, sunlight, calmness of winds, firing of brick kilns, pollution emitted by vehicles and industrial activity.
- **Haze:** When pollution is high, nitrogen oxides and dust particles interact with sunlight to form ground-level ozone, leading to the building up of haze.

Health Impact

- There is **evidence that high pollution** can lead to premature birth, make pregnant women prone to miscarriage, and cause fetal growth problems.
- A **Lancet study** had pointed out that more than half a million of Indians have died prematurely in 2015 due to particulate matter (PM) 2.5.
- **Other impact**: Breathlessness, watering of the eyes and nose, burning sensation in the eyes, coughing, dizziness, headache, lethargy, sore throat and from arthritis to increased risk of stroke.
- According to a study if Delhi's air pollution could be lowered to the national standard, it would increase the life expectancy of Delhi's citizens by six years.

Steps Taken

- Shift to compressed natural gas for commercial vehicles
- Ministry of Environment's orders issued in 2015 under the Air (Prevention and Control of Pollution) Act, 1981 to comprehensively green Delhi's road margins and open spaces
- Advancing Bharat Stage-VI norms to April 2018 from april 2020.
- Closure of brick kilns and an increase in parking fees to encourage the use of public transport.
- Nation Green Tribunal ordered construction to stop in the capital for a few days earlier this month.
- Ban on petcoke & furnace oil in and around NCR, Odd and even policy, Ban on sale of fire crackers etc.

Way Forward

- **Interstate cooperation**: Comprehensive solution demands that the governments of Delhi, Punjab, Haryana and Uttar Pradesh, assisted by the Centre, address farm residue burning and construction dust.
- **Easy and reliable public transport**: It can cut fine particulates in congested areas and improve the air for residents.
- **Learning best practice**: Delhi can emulated Singapore's example of setting a limit on the number of cars permitted on its roads.
- Amicus Curiae appointed by SC suggested to till the straw back into the field using certain machines or encouraging the use of wheat and paddy straw and bagass (cane residue) for the production of ethanol.
- **More electric vehicle on road** could be a game changing from development and environment perspective.

5.7. BAN ON POLLUTING FUELS

Why in News

Recently, Supreme Court banned the use of furnace oil and pet-coke in Haryana, Rajasthan and Uttar Pradesh.

More on news

- **Environment Protection (Prevention and Control) Authority (EPCA)** in April 2017 had asked for the ban on use of furnace oil and pet-coke in NCR region
- Sulphur-heavy petcoke and other polluting fuels such as furnace oil are widely used by cement factories, dyeing units, paper mills, brick kilns and ceramics businesses.
- India is becoming a dumping ground of pet-coke from the US, which has banned its internal use because of pollution.

Reason for increased uses of Pet-coke and furnace oil:

- **Cheaper alternative:** Per-unit delivered energy for petcoke is much cheaper compared to coal making it attractive for buyers.
- **Favourable tax regime**: Though both these fuels are taxed at 18% under GST but the industries, which use these fuels for manufacturing, get entire tax on the fuels credited back. On the other hand on natural gas, which is not included in GST, the VAT is as high as 26 per cent in certain states.
- **Clean energy cess** of Rs. 400 per tonne levied on coal, further promote shift to pet-coke.
- **Zero Ash Content** in Pet coke is a big advantage over coal which has significant ash content. It also allows cement firms can use low grade limestone. This is a big advantage as almost 60 per cent of India's limestone reserves are low grade in nature.

Concern over ban

- India is the second largest refiner of crude oil in Asia and it generated 13.94 million tonne of petcoke 2016-2017. Given that production of petcoke will continue in India for the foreseeable future, there is a clear need to find a way to dispose it in an environmentally friendly and cement kilns offer the best option.
- Many public sector companies have just created petcoke capacity at significant cost on seeing rising demand for the fuel, the ban would be counterproductive to these companies.
- There are challenges on the procurement front for domestic coal with linkages not available for the cement industry. Also coal available is of a grade which can be used only for captive power plants and is not suitable for use in kiln.
  Ban could impact approx 1,000 units directly and nearly 10,000 allied units indirectly and is expected to render over 25 lakh workers jobless.

Way forward

- The need of the hour is a clear cut policy which stipulates as to who can use/import petcoke and what stringent emission norms they have to adhere to.


> **About pet coke**
> - Petroleum coke or pet coke, is a solid carbon rich (90% carbon and 3% to 6% sulfur) material derived from oil refining.
> - It is categorized as a "bottom of the barrel" fuel.
> - It is a dirtier alternative to coal and emits 11% more greenhouse gases than coal.
> - India is the world's biggest consumer of petroleum coke
> - It is an approved fuel in many states such as Andhra Pradesh, Telangana, Gujarat and Karnataka.
>
> **About Furnace oil**
> - It is a dark viscous residual fuel obtained by blending mainly heavier components from crude distillation unit, short residue and clarified oil from catalytic cracker unit.
> - It is one of the cheapest fuels available and used to generate power in industries to run boilers, turbines etc.

Toxic Emissions

Petcoke's sulfur levels are higher than other fossil fuels

- 80K parts per million
- 40K parts per million

Pet Coke | Furnace Oil | Coal | Diesel | Natural Gas
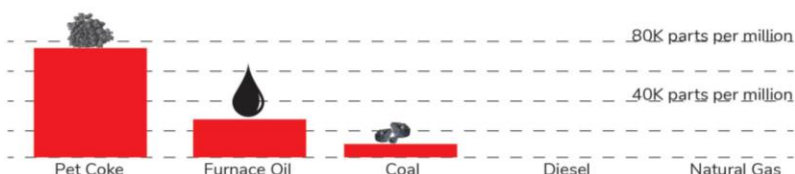
> **The Air (Prevention and Control of Pollution) Act, 1981**
> - According to it, governments may prohibit the use of fuel, which is likely to cause air pollution, in air pollution control areas.
> - Act also give authority to state board to declare any fuel as **'approved fuel'**.

- The National Green Tribunal instead of banning the fuel had asked the States to take a decision as to whether petcoke is an 'approved fuel or not' and ensure that users install necessary air pollution control systems to reduce sulphur emission.
- **Shift to the alternative fuels as recommended by EPCA:**
  - ✓ Use of pulverized coal or light diesel oil, which will not require any changes in industries burners
  - ✓ move to cleaner fuels like natural gas. In this case, there will be initial costs of conversion to change the burner to natural gas.
  - ✓ changing furnaces to electric.

5.8. BONN CLIMATE CHANGE CONFERENCE

Why in news

- Recently, the 23rd meeting of the Conference of the Parties **(COP-23)** of the United Nations Framework Convention on Climate Change **(UNFCCC)** concluded in Bonn, Germany.
- It is the first set of negotiations since the US withdrawal from the Paris deal.

Highlights

- **Adoption of Fiji Momentum for Implementation:** It set the stage for negotiation in 2018. It is divided into three parts which deals with:
  - ✓ **Completion of the Work Programme under Paris Agreement**: Parties have requested the Secretariat to develop an online platform to provide an overview of the work programme of the Paris Agreement being carried by different stakeholders.
  - ✓ **Talanoa Dialogue**: Talanoa dialogue a facilitative dialogue in 2018, to take stock of the collective efforts of Parties in relation to progress towards the long-term goal referred to Paris Agreement and to inform the preparation of nationally determine contributions (NDCs) was launched at the CoP 23.
  - ✓ **Pre-2020 implementation and ambition**: Parties agreed that there will be two stock-takes to discuss pre-2020 commitments -- in 2018 and 2019 -- before the Paris Agreement becomes operative in 2020.
- **Agriculture:** After six years, a decision was taken to deal with climate actions in agriculture. Parties are required to submit the following -- reporting on climate actions in agriculture; adaptation assessment methods for improvement of soil health, soil carbon and soil quality, as well as considerations for the improvement of nutrient use and manure management; and reporting on socio-economic and food security dimensions**.**
- **Gender Action Plan**: The first ever Gender Action Plan to the UNFCCC was adopted at COP23 (role of gender in climate actions had earlier been included in **the Lima work programme)**. It lays five priorities areas:
  - ✓ capacity building.
  - ✓ knowledge sharing and communication
  - ✓ gender balance and women's leadership
  - ✓ coherence

> **The Paris Agreement (PA)**
> - It was meant to make sure that the average surface temperature all over the world does not rise above 2 degree celcius, compared to pre-industrial times.
> - To achieve this goal, countries have promised INDC under the Paris Agreement to take a variety of self-determined actions to restrain the current rate of global warming.

> - **Post-2020 Actions** are meant for all countries as per their nationally determined contributions (NDCs) under 2015 Paris Agreement.
> - **Pre-2020 Actions** refer to existing obligations of small group rich and developed nations to take mitigation actions **under Kyoto Protocol.**
> - **Lima Work Programme on Gender (COP-2014)**: It aims to advance implementation of gender-responsive climate policies and mandates across all areas of the negotiations.
> - **Warsaw International Mechanism for Loss and Damage (COP-19):** It aims to address loss and damage associated with impacts of climate change, including extreme events and slow onset events, in developing countries that are particularly vulnerable to the adverse effects of climate change.

> **Other Initiative Started during the COP-23**
> - **Powering Past Coal alliance:** It is initiated by the UK and Canada. 15 countries have joined an alliance to phase out coal-based power by 2030.
> - **Below 50 initiative**: It was launched by World Business Council for Sustainable Development (WBCSD. The goal is to create the demand and market for those sustainable fuels that produce at least 50% less CO2 emissions than conventional fossil fuels.

✓ gender responsive implementation of the convention and the Paris Agreement
- **Local communities and indigenous people's platform**: It is a new platform to include indigenous people's voices in the implementation of the Paris Agreement. The platform shall undertake activities to educate, build capacity and facilitate the incorporation of the diverse and traditional knowledge systems in international and national climate action policies. A full operationalisation is slated for April-May 2018.
- **Loss and damage**: No financial commitments was agreed upon between the negotiating parties on the issue of loss and damage.

5.9. PERMACULTURE

Why in news?

Recently the 13th International Permaculture Convergence (IPC) was held in Hyderabad.

Significance of permaculture

- **Environment friendly:** It discourages uses of chemical and pesticide and promotes the uses of eco-friendly means to maintain soil health and increase productivity.
- **Decrease Global warming:** Increasing area under permaculture from current 108 million acres to 1 billion acres by 2050 could result in a total reduction of 23.2 gigatons of CO_2, from both sequestration and reduced emissions.

What is permaculture?
- It is the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems.
- It is the harmonious integration of landscape and people — providing their food, energy, shelter, and other material and non-material needs in a sustainable way.
- The term was coined by Bill Mollison in 1978.

About IPC
- First IPC was hosted in Australia in 1984.
- These events have been serving as a platform to discuss strategy, education standard, research, and regional and global permaculture developments.

- **Promotion of Traditional practice:** It incorporates traditional farming practices with modern technological and scientific knowledge to create efficient systems. It can also reduce the dependency of farmers on multi-national companies for genetically modified seeds.
- **Improve income:** Instead of monoculture, permaculture uses polyculture where a diverse range of vegetation and animals are utilised to support each other to create a self-sustaining systems.

6. SCIENCE AND TECHNOLOGY

6.1. SPACE ACTIVITIES BILL, 2017

Why in news?

- The government of India has come up with **Space Activities Bill 2017**, a draft law meant to regulate the space sector.

Background

- **Department of Space(DoS)** is the **nodal agency for space activities in India** which include:
    o **Space Infrastructure**: spacecraft for various applications and associated ground infrastructure
    o **Space Transportation systems**: various class of launch vehicles and associated ground infrastructure **Space applications:** for various national requirements through establishment of necessary ground infrastructure and coordination mechanisms.
- Space activities in India till now have been governed by **Satellite Communication Policy, 2000** (which enacted a framework to provide licenses to private sector players to operate communication satellites over India) **and the Remote Sensing Data Policy, 2011.**
- However apart from these two policies, there has been no formal law in the country that provided any framework for creating a private space venture.
- Internationally, the outer space activities are governed by **relevant chapters of international law in general** and by **United Nations' (UN) Treaties and principles evolved under UN Committee on Peaceful Uses of Outer Space (UNCOPUOS)** in particular

Need for a Space Law

- There has been a growing interest of private sector in the space activities with startups like TeamIndus, Bellatrix Aerospace and Astrome Technologies planning their own space-based products and services.
- The involvement of the emerging private sector becomes crucial as the current manpower of ISRO is not sufficient to meet the increasing demands of satellite launches.
- ISRO has been trying to build the private industrial capabilities in the country to support its activities. Recently, it invited single or combined bids from private players to build up to 18 spacecraft a year.
- But apart from Satellite communication and Remote Sensing Policy, there has been no formal law in the country that provided any framework for creating a private space venture.
- The new Bill encourages the participation of private sector agencies in space activities in India under the guidance and authorisation of the government through the Department of Space.

Salient Features of the Draft Law

- The provisions of this Act shall apply to every citizen of India and **to all sectors engaged in any space activity** in India or outside India.
- A non-transferable licence shall be provided to any person carrying out commercial space activity through an appropriate mechanism.
- The government will maintain a register of all space objects (any object launched or intended to be launched around the earth).
- It will provide professional and technical support for commercial space activity and regulate the procedures for conduct and operation of space activity through a regulatory body.
- If any person undertakes any commercial space activity without authorisation they shall be punished with imprisonment up to 3 years or fined more than ₹1 crore or both.

Criticisms

- **Erroneous Definition of Space Activity** - As per the definition of space activity in the bill even data companies handling satellite imagery or universities operating ground facilities for their microsatellites may also need a licence. This might adversely affect the operations of hardware and internet companies.

- **Non-specification of Regulator** - As the bill hasn't specified an independent regulator for the space sector, making DoS the regulator will amount to conflict of interest because DoS is also a service provider through ISRO as well as a commercial operator through Antrix.
- **One Blanket Law for All Space Activities** - Space activities have not been segregated and putting them all under one blanket licence can hinder their efficient functioning.
- **Non-differentiation of Liabilities** - The liabilities of upstream activities such as spaced operations and launch and those of downstream activities such as space-based products/services on the ground are different. However, it hasn't been defined separately and has been passed on to the players involved.
- **Non-clarity on Pollution** - Pollution to the environment of outer space including celestial bodies has not been defined clearly.

6.2. SCOPING REPORT ON ANTIMICROBIAL RESISTANCE IN INDIA

Why in News?

- Recently, Ministry of Science and Technology have released the **Scoping Report on Antimicrobial Resistance in India.**

Highlights of the report

- In 2014, India was the highest consumer of antibiotics, followed by China and the United States. However, the per capita consumption of antibiotics in India is much lower than in several other high income countries.
- India has some of the highest antibiotic resistance rates among bacteria that commonly cause infections in the community and healthcare facilities.
- It has also pointed that the resistance to carbapenem class of antibiotics (one of the last-resort antibiotics to treat serious bacterial infections in humans) among various bacteria was extremely high.
- Antibiotic-resistant bacterial infections are also increasingly reported among neonates.

Factors responsible for antibiotic resistance in India

- **Antibiotic Consumption:** Inappropriate consumption of broad spectrum (last resort) of antibiotics is high because of changing prescription practice in healthcare system due to non-availability of narrow spectrum of antibiotics.
- **Social Factor:** such as inappropriate antibiotic use among the general public and formal healthcare providers.

  > **Antimicrobial Resistance (AMR)**
  > - It occurs when microorganisms such as bacteria, viruses, fungi and parasites change in ways that render the medications used to cure the infections and causing them ineffective.
  > - It is the **broader term for resistance** in different types of microorganisms and encompasses resistance to antibacterial, antiviral, antiparasitic and antifungal drugs.
  > - It **occurs naturally** but is also facilitated by the inappropriate use of medicines.
  > - Microorganisms that become resistant to most antimicrobials are often referred to as **"superbugs".**
  > - It affects the, medical procedures such as organ transplantation, cancer chemotherapy, major surgeries etc. making them very risky.
  >
  > **International Initiatives**
  > - **'One Health' approach**: to designing and implementing programmes, policies, legislation and research in which multiple sectors communicate and work together to achieve better public health outcomes against the food safety, the control of zoonoses (diseases that can spread between animals and humans, such as flu, rabies), antimicrobial resistance etc.
  > - World Antibiotic Awareness Week.
  > - The Global Antimicrobial Resistance Surveillance System.
  > - Interagency Coordination Group on Antimicrobial Resistance.

  - **Public**: such as self-medication (to avoid financial burden), access to antibiotics without prescription (left over medicine of any family member), use of pharmacies and informal healthcare providers as sources of healthcare.
  - **Health care providers:** several factors are associated with inappropriate antibiotic prescribing such as:
    - Doctors may perceive that they are compelled to give antibiotics as patients come with preconceived idea of quick relief.
    - Pharmaceutical companies put pressure on doctors and pharmacists to prescribe new antibiotics, and in return they receive incentives.
    - Public sector does not have adequate microbiology diagnostic laboratory services. Unaffordability of private labs and diagnostic uncertainty compels the physicians to prescribe antibiotics.
- **Cultural Activities:** The report has highlighted that mass bathing in rivers as part of religious mass gathering occasions associated with potential acquisition and spread of antibiotic-resistant bacteria. For e.g. blaNDM-1

(gene that confers confers resistance to the carbapenem class of antimicrobial drugs) was found to be over 20 times greater in the Ganges River during pilgrimage season than at other times of year

- **Antibiotics Consumption in Food-Animals:** Use of antibiotics as growth promoters in food animals and poultry is a common practice. With rising incomes and changing dietary patterns leading to an increase in the demand for animal protein, antibiotic use is projected to rise quickly making India the fourth-largest consumer of antibiotics in food animals by 2030.
- **Pharmaceutical industry pollution:** It is estimated that 80% of the antibiotics sold worldwide are manufactured in India and China. The effluents from the antibiotic manufacturing units contain a substantial amount of antibiotics, leading to contamination of rivers and lakes in India.
- **Poor Sanitation:** The large proportion of sewage is disposed untreated into receiving water bodies, leading to gross contamination of rivers with antibiotic residues, antibiotic-resistant organisms.
- **Infection Control Facilities in healthcare:** The prevalence of various healthcare associated infections (HAIs) among Indian hospitals ranges from 11% to 83%, in contrast to the global HAI burden of 7% to 12%.

Policy/Initiatives of Government

- **National Policy for Containment of AMR 2011** envisaged enforcement of regulatory provisions for use of antibiotics for humans as also for veterinary use along with a hospital based surveillance system for monitoring antibiotic resistance.
- The **Drugs and Cosmetic Rule,** 1945 were amended in 2013 to incorporate **a new Schedule H1** for having strict control over the sale of these drugs.
- **FSSAI** has set certain guidelines limiting the antibiotics in food products such as fish and honey.
- **Red Line Campaign on Antibiotics** 2016, was launched to create awareness regarding rational usage and limiting the practice of self-medication of antibiotics among the general public.
- **National Health Policy 2017** envisions a holistic framework against AMR.
- **The National Action Plan on Antimicrobial Resistance (NAP-AMR)** 2017 has assigned coordinated tasks to multiple government agencies involving health, education, environment, and livestock to change prescription practices and consumer behaviour and to scale up infection control and antimicrobial surveillance.
  - The strategic objectives of NAP-AMR are aligned with the WHO's Global Action Plan on AMR (GAP-AMR).
  - Six strategic priorities have been identified under the NAP-AMR:

Improve awareness	Strengthen knowledge and evidence through surveillance	Optimize the use of anti-microbial agents
Promote investments, research, and innovations	Reduce the incidence,	Strengthen leadership on AMR through international collaborations

Way forward

- Fragmented approach by various government agencies such as policy action of FSSAI, Ministry of Environment Forest and Climate Change and ministry of health and family welfare need to be aligned and integrated.
- AMR involves multiple stakeholders such as Pharmaceutical Companies, Medical practitioner, patient, etc. One size fit all policy to tackle AMR will not provide intended results in the absence of collective efforts.

6.3. ADITYA L1

Why in news?

- India is set to launch its first solar mission Aditya-L1 in 2019.

About Aditya L1

- The Aditya L1 will be placed **in a halo orbit around a vantage**

- **Halo Orbit:** It is periodic, three-dimensional orbit near the L1, L2 and L3 lagrange point (unstable) in a three body system.
- **Lagrange Point:** It is the point where the combined gravitational force of two large bodies is equal to the centrifugal force that is felt by a third body which is relatively smaller.
- There are about 5 such points in a two body system.
- **Corona:** The outer layers of the Sun, extending to thousands of km above the disc (photosphere) is termed as the corona. It has a temperature of more than a million degree Kelvin which is much higher than the solar disc temperature of around 6000K.

point in space known as L1 Lagrange point.
- The point L1 has the major advantage of viewing the sun without any occultation/ eclipses.
- The mission will carry seven payloads including the main payload the **Visible Emission Line Coronagraph (VLEC).**
- Aditya L1 is to be the first satellite to study the magnetic field of the sun's corona.
- The Aditya L1 is expected to help study that why the photosphere, the deeper layer of the sun is at much lower temperature than the corona.
- It will also study aspects that affect space weather, the origin of solar wind ions, their reaction to coronal mass ejections, the distribution of these in the heliosphere- the space around the sun that extends up to Pluto.

Aditya will be India's third big extra-terrestrial outing after Moon and Mars
◎ 400kg Spacecraft to Study Sun
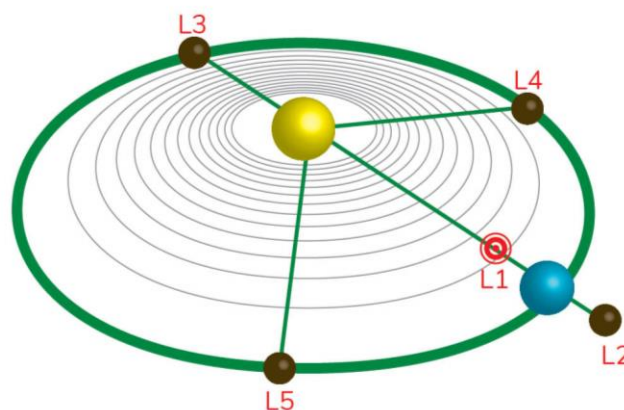
6.4. MOST ANCIENT SPIRAL GALAXY FOUND

Why in news?

Scientists have recently discovered the most ancient spiral galaxy in the universe that existed 11 billion years ago.

More about the news

- The discovery was made by Australian National University (ANU) and Swinburne University of Technology using a technique that combines gravitational lensing with the Near-infrared Integral Field Spectrograph (NIFS).
- The galaxy, known as A1689B11, existed just 2.6 billion years after the Big Bang, when the universe was only one fifth of its present age.
- In a spiral galaxy, the stars, gas and dust are gathered in spiral arms that spread outward from the galaxy's center.
- Spiral galaxies are exceptionally rare in the early universe, and this discovery opens the door to investigating how galaxies transition from highly chaotic, turbulent discs to tranquil, thin discs like those of our own Milky Way galaxy.

> **Gravitational Lenses**
> It is a phenomenon in which the gravity of a massive object (like a galaxy or a cluster of galaxies) bends and amplifies the light from an object that lies beyond it.

6.5. NEW PARASITIC PLANT DISCOVERED

Why in news?

Recently, scientists have discovered a new species of parasitic plant and named it *Gleadovia konyakianorum*, after the Naga Tribe Konyak.

About the new plant

- It has been found in the **semi evergreen forest of Nagaland** at an altitude of 1500-1600m above the sea level.
- It grows up-to a height of 10cm and has **yellow leaves** and **white tubular flowers.**
- It is a holoparasite which doesn't have chlorophyll but has a well-developed vascular system.
- It extracts nutrition with the help of haustorium (a specialised structure with which the parasite attaches itself to the tissue of host plant and derive nutrition) from Strobilanthes plants growing on the bank of streams.

> **Parasites**
> Parasites are the organisms which live in or on other organisms and survive by deriving nutrients from the host.
> Types of Parasites:
> - **Holoparasite** – are those which depend completely on the host for their nutritional needs.
> - **Hemiparasites** – are those which are capable of both photosynthesis and parasitism.

- The main threat to this species of parasitic plant is **habitat destruction** caused by illegal felling of trees.
- **The International Union for Conservation** has described its status as 'data deficient' as the species have not been reported anywhere else.
- The other three species of **Gleadovia genus** are found in Manipur, Uttarakhand and China

7. SOCIAL

7.1. WHO GUIDELINES ON RESPONDING TO CHILD SEX ABUSE

Why in News?

World Health Organisation has recently formulated clinical guidelines on responding to children and adolescents who have been sexually abused.

About the guidelines

- They put forward **recommendations for the frontline health care providers** who may directly receive a victim of sexual abuse or may identify sexual abuse during the course of diagnosis and treatment.
- The **recommendations are** in terms of disclosure made by the child, obtaining medical history, conducting physical examinations and forensic investigations, documenting findings, offering preventive treatment for HIV post exposure, pregnancy prevention, and other sexually transmitted diseases, psychological and mental health interventions among others.
- It highlights that child sexual abuse has a short-term as well as long-term mental and physical health impacts.
- The guidelines are crucial because of various avoidable mistakes committed during examination like the **re-traumatization of the victim.**
- They also provide recommendations to prevent the recurrence of child maltreatment.

CSA Laws in India

- The Government had acceded to the **Convention on the Rights of the Child** in 1992.
- Crimes against children were protected by section 354, 375, 377, 509 of **Indian Penal Code, 1860,** without any proper legislation until 2012.
- Finally, in the year 2012 the Parliament of India passed **the Protection of Children against Sexual Offences Act (POCSO)** for the victims of child sexual abuse below 18 years of age.

The issue of pornography, affecting children, was dealt with **Young Persons (Harmful Publication) Act, 1956.About POCSO**

- It protects children from offences of sexual assault, sexual harassment and pornography and provide for **establishment of Special Courts** for trial of such offences and for matters connected therewith or incidental thereto.
- The Act defines a child as any person below the age of 18 years and provides protection to all children under the age of 18 years from the offences of sexual assault, sexual harassment and pornography.
- For the first time it listed aspects of **touch as well as non-touch behaviour** (example- it brought photographing a child) under the ambit of sexual offences.
- It incorporated child friendly procedures for reporting, recording of evidence, investigation and trial of offences.

What is Child Sexual Abuse (CSA)?
According to **1999 WHO Consultation on Child Abuse Prevention**, "Child sexual abuse is the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared and cannot give consent, or that violates the laws or social taboos of society."

CSA Statistics

- The number of identified incidents of child sexual abuse decreased at least 47% from 1993 to 2005-2006.
- The primary reason is that only about 38% of child victims disclose the fact that they have been sexually abused.
- Nearly 70% of all reported sexual assaults (including assaults on adults) occur to children ages 17 and under.
- About 90% of children who are victims of sexual abuse know their abuser. Only 10% of sexually abused children are abused by a stranger.
- Approximately 30% of children who are sexually abused are abused by family members.

UN Convention on Rights of Child

It came into force in 1990. It prescribed a set of standards to be followed by all State parties in securing the best interests of the child.

State parties to the Convention on the Rights of the Child are required to undertake all appropriate measures to prevent—

- The inducement or coercion of a child to engage in any unlawful sexual activity;
- The exploitative use of children in prostitution or other unlawful sexual practices;
- The exploitative use of children in pornographic performances and materials.

- The **attempt to commit an offence** has also been made liable for punishment for up-to half the punishment prescribed for the commission of the offence.
- It also provides for punishment for abetment of the offence, which is the same as for the commission of the offence. This would cover trafficking of children for sexual purposes.
- For the more heinous offences of Penetrative Sexual Assault, Aggravated Penetrative Sexual Assault, Sexual Assault and Aggravated Sexual Assault, the burden of proof is shifted on the accused.
- The media has been barred from disclosing the identity of the child without the permission of the Special Court.
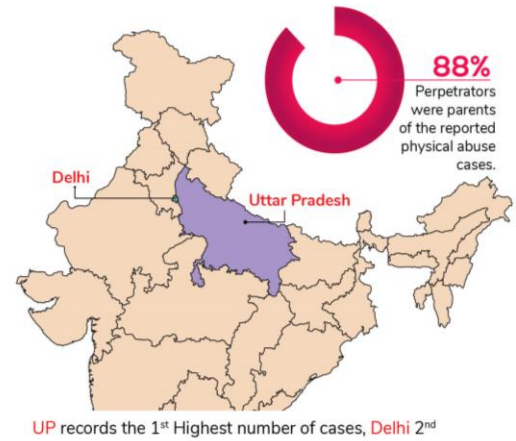
Conclusion

- The emotional and other aspects that were inadequately addressed by various legislations in the country are dealt with in the guidelines which are grounded in **human rights standards and ethical principles**.
- It is expected to assist WHO Member States to ensure the health and wellbeing of children and adolescents and implement the **Global Plan of Action** on strengthening the health systems response to violence against women and girls and against children, endorsed by the World Health Assembly in May 2016.

7.2. GLOBAL GENDER GAP REPORT 2017

Why in news?

Recently, World Economic Forum released the Global Gender Gap Report.

Global Gender Gap Report

- **The report was** introduced by the World Economic Forum in 2006 as a framework for capturing the magnitude of gender based disparities and tracking their progress over time.
- Gender Gap Index 2017 has captured the development of 144 countries across four dimensions **Economic Participation and Opportunity, Educational Attainment, Health and Survival and Political Empowerment**.
- Index has been developed using the following concepts:
  - o **Gap vs. Levels** – It measures gender based gaps in access to resources and opportunities in countries rather than the actual levels of available resources. The index captures gender gap and not the development levels of the countries.
  - o **Outcomes vs. Inputs –** It evaluates outcomes rather than considering inputs or policy measures in place for men and women.

The case for gender parity
- **Economically**-
  - o Various studies have suggested that improving gender parity may result in significant economic dividends, which vary depending on the situation of different economies and the specific challenges they are facing.
  - o Compared to general public investment into labour market and education programmes, targeted gender equality promotion has been found to create a particularly strong impact on GDP.
  - o Further, top performers in the Global Human Capital Index have succeeded in maximizing the development and deployment of their nation's talent by also narrowing their gender gaps.
- **Socially-**
  - o Similar to investments in education, investing in health—and specifically in maternal, newborn and child health—has a significant multiplier effect.
- **Politically-**
  - o The issues that women advocate, prioritize and invest in have broad societal implications, touching on family life, education and health.
  - o Their engagement in public life fosters greater credibility in institutions, and heightened democratic outcomes.

o **Gender Equality vs. women's empowerment –** Report focuses on narrowing gap between men and women rather than women's empowerment.

Findings of the Report

- According to the latest report**, about 32% of the gender gap still remains to be closed as compared to 31.7% in 2016.**
- The report mentions that the overall gender gap according to current trends could be closed in about 100 years in 109 countries. However it may be delayed if the economic gender gap and political participation remains as wide.
- A significant feature of the 2017 report is that it analyses the dynamics of gender gaps across **industry talent pools and occupation**. It found that men were distinctively under-represented in Education and Health sector where as women in Engineering, Manufacturing Construction and IT etc.
- The findings of the report also points that there is a direct relationship between **Gross National Income and gender parity** but it fails to find evidence to show this.

Gender Gap in India

- India has slipped 21 ranks to 108 behind Bangladesh (47) and China (100).
- India's greatest challenge lies in the **economic participation and opportunity pillar** where it ranked 139 and **health and survival pillar** where it ranks 141.
- The main reason behind slipping of India's ranking is its laggard performance on **political participation and empowerment pillar.**
- Workplace gender gap is evident due to low participation of women as well as low wages to women as compared to men (66% women are unpaid as compared to 12% men)
- India, however, has successfully closed the primary and secondary as well as tertiary education gender gap**.**

7.3. INDIA STATE LEVEL DISEASE BURDEN REPORT

Why in news?

India State Level Disease Burden Report was published as a part of Global Burden of Disease Study 2016 to provide state level-disease burden and risk factors trends from 1990 onwards.

About the Report

- It has been prepared by **Indian Council of Medical Research (ICMR)** along with **Public Health Foundation of India and Institute for Health Metrics and Evaluation (IHME).**
- The findings of the study can be used to
  - ✓ plan state health budgets
  - ✓ prioritisation of state specific interventions help to deal with the variations among states
  - ✓ monitoring health related SDGs of each state
  - ✓ forecasting population health under various scenarios
  - ✓ form data-driven and decentralised health planning framework
  - ✓ track subnational disease burden in India using DALY.

> **Disability-adjusted life years (DALYs)**
> - Years of healthy life lost to premature death and suffering.
> - It is composed two components: Years of Life Lost (YLL) and Years of life lived with disability (YLD).
> - DALYs instead of causes of death alone provides a more accurate picture of the main drivers of poor health.

Findings of the Report

- **Health Indicators and disparities among States**
  - ✓ **Life Expectancy:** As compared to 1990s the life expectancy at birth improved from 58.3 years among men and 59.7 years among women to 66.9 years for males and 70.3 years for females.
  - ✓ Disparity among states is also visible with a range of 66.8 years in Uttar Pradesh to 78.7 years in Kerala for females, and from 63.6 years in Assam to 73.8 years in Kerala for males in 2016.
  - ✓ **Child and Maternal Nutrition:** The disease burden due to Child and Maternal malnutrition has dropped to 15% but it still remains single largest risk factor in India.
  - ✓ The study thus points to the fact high priority needs to be put on nutritional interventions.

- **Non-Communicable Diseases and Epidemiological Transition**
  - ✓ Over the past 26 years the pattern of diseases has shifted from communicable, maternal, neonatal, and nutritional diseases (CMNNDs) to non-communicable diseases (NCDs) and injuries.
  - ✓ Among the leading non-communicable diseases, the largest disease burden or DALY rate increase from 1990 to 2016 was observed for diabetes, at 80%, and ischaemic heart disease, at 34%.
- **Reduction in Infectious diseases but prevalence still high in many states**
  - ✓ The burden of infectious diseases has reduced since 1990 however five out of ten diseases are from this category i.e. diarrhoeal diseases; lower respiratory infections, iron-deficiency anaemia, preterm birth complications, and tuberculosis.
  - ✓ DALY rates for whole of India for this group was 2.5 to 3.5 times higher than the average globally for other countries with similar levels of development, thus shows that the burden can be brought down substantially.
- **Increasing burden of diseases among states**
  - ✓ Injuries due to road accidents, suicides etc. are the leading contributors to the injury burden in India.
  - ✓ DALY rates for self-harm for India was 1.8 times higher ad compared to other countries of same level of development in 2016
- **Unsafe Water and Sanitation**
  - ✓ The Disease burden due to above is improving but it continues to contribute 5% of total disease burden though it has improved since 1990.
  - ✓ The disease burden due to unsafe Water and Sanitation is 40 times higher in India than in China.
- **Household air pollution improving and worsening outdoor air pollution**
  - ✓ **Outdoor Pollution –** The contribution of pollution remained high during 1990 and 2016 which causes a mix of NCDs and infectious diseases.
  - ✓ **Household pollution –** it has considerably decreased due to reduced use of solid fuels for cooking. Household air pollution was responsible for 5% of the total disease burden in India in 2016, and outdoor air pollution for 6%.
- **Rising risk of cardiovascular diseases and diabetes**
  - ✓ The contribution of this group has increased from 10% to 25% when 1990 and 2016.
  - ✓ This includes unhealthy diet, high blood pressure, high blood sugar, high cholesterol, and overweight, which mainly contribute to ischaemic heart disease, stroke, and diabetes.
  - ✓ Other significant contributor to rising burden of cardiovascular diseases and diabetes is tobacco use which was responsible for 6% of the disease burden.
  - ✓ All these risks are generally higher in females than males.

Policy Implications

- A major issue with interventions to improve population health in India has been the relative deficiency of the necessary **inter-sectoral collaborations**. An improved understanding of the influence of the variety of sectors on health would help achieve better population health levels in the country.
- Various health goals as indicated in National Health Policy 2017 and the NITI Aayog Action Agenda 2017 can be achieved through- **Increasing health financing** & **Improving human resources for health**.
- **Strengthening the health information system** by introducing a robust cause of death reporting system, improved disease surveillance and better documentation in health facility records and utilisation of these data to understand health outcomes.
- **Other implications include –**
  - ✓ **Addressing the major risk factors –** includes focus on child and maternal malnutrition, unsafe water and sanitation, controlling air pollution and addressing risk factors for cardiovascular disease and diabetes.
  - ✓ **Addressing persistent and increasing disease conditions –** includes controlling under-5 disease burden, injuries (due to road accidents, suicides etc.), TB and other communicable diseases and non-communicable diseases.

7.4. PRIVATE HEALTH CARE

Why in news?

Recently, **Karnataka Private Medical Establishments (Amendment) Bill**, was passed in state assembly to increase transparency in private medical establishments of the state.

Issues with Private healthcare system in India

According to 71st National Sample Survey (NSS) total private hospitalization share in rural and urban areas is 58% and 68% respectively in 2014.this private sector is riddled with various issues like-

- **Cost of care is a major challenge**: According to the Health Profile of India report, 75 % of patients, who visit private hospitals, settle medical bills from their household income or life savings while another 18 % borrow money from private lenders to pay medical bills causing high level of impoverishment.
- **Differential Drug prices**: Differential prices under National List of Essential Medicines (NLEM) and non NLEM category creates ambiguity and widens margin for private hospitals to exploit patients.
- **Variation in Healthcare Delivery across Providers**: due to lack of professional standards in terms of competence and compassion resulting in compromised patient safety and transparency in procedure.
- **Disconnect between patient and doctor**: Due to lack of communication in terms of charges and various related procedural costs in the beginning, there is an apparent disconnect between the two parties that weakens the overall medical procedure.

> **The Clinical Establishments (Registration and Regulation) Act, 2010**
> - **Objective:** To provide for the registration and regulation of clinical establishments with a view to prescribe minimum standards of facilities and services.
> - **Applicability:** All types of clinical establishments, except those run by the armed forces, fall within the ambit of this Act.
> - **Implementation:** Through a three-tier structure — the Central Council, the State Council and the District Registering Authority.
> - **Penalty**: Running a clinical establishment without registration would be punishable with a fine of Rs 50,000 for the first offence, Rs 2 lakh for the second offence and Rs 5 lakh for the subsequent offence.
> - **Monitoring:** The Act permits health authorities to conduct inspections and penalize or cancel licenses of hospitals that are found to be fleecing patients, either by prescribing needless tests and procedures, or overcharging.

- **Growth of medical legal jurisprudence** has not been in sync with the rise of private institutions in the country which leaves room for malpractices and corruption in one of the most noble professions. **The Clinical Establishment Act (2010)** also is yet to be properly implemented across the country.

Way forward

- Worldwide experience teaches us that the private sector acts responsibly and provides good quality services only if the government provides good quality norms. The private system becomes more abusive when the government sector fails to set good norms.
- Increasing the budget for healthcare is a welcome step but may not be the only one that is required. The existing ecosystem needs to be revamped to integrate concerns of all the stake holders.
- The regulator should insist on transparency — hospitals clearly publicizing their rates for standard treatments and procedures. Also, there should be normative rates for different types of hospitals as not all private hospitals are located in costly cities.
- Hospitals should publicize standard packages and rationale for additional charges levied recorded. The regulator should get regular data on the percentage of deviation from standard packages.
- Finally, the Medical Council of India needs to take up pro-active role in safeguarding the interests of its patients and in regulating doctors.

7.5. INDIA YOUTH DEVELOPMENT INDEX AND REPORT 2017

Why in news?

Recently, government released the India Youth Development Index and Report 2017.

India Youth Development Index, 2017

- The Index has been constructed by The Rajiv Gandhi National Institute of Youth Development (RGNIYD) with an objective of tracking the **trends in Youth Development** across the States.
- According to the Report 'Youth' refers to a stage of life in transition between adolescence and adulthood in the age bracket of 15 to 29 years. (As accepted by Commonwealth and National Youth Policy 2014).
- The various dimensions on which the YDI 2017 has been formed are
  - Education
  - Health
  - Political Participants
  - Civic Participation
  - Work
  - Social Inclusion (new dimension added in IYDI 2017)

Measures for Capitalizing Youth

Spread of mass education has led to a rise in invaluable youth resource which can be capitalized by minimising the opportunity gaps and harnessing their potential by-

- Ensuring development of youth of various social segments and sub categories arising out of inter-regional and intraregional diversity in order to render social justice.
- Empowering youth through a multi-dimensional approach in development agenda, public policies and planning.
- Adopting programmes and policies that have youth at their focus and promote progressive youth development in order to achieve SDG8.

Global Youth Index
- It is developed by the **Commonwealth Secretariat** using a comprehensive measure across five domains - education, health, employment, and civic and political participation.
- It helps policy makers to make informed decisions regarding **young people's needs and opportunities** and help to achieve the **Sustainable Development Goals**.

Highlights of YDI-2017
- India has 65% of the population less than the age of 35 years and 50% below 25 years of age and it is expected to be youngest in the world by 2020 with median age of 29 years.
- The National YDI value is 0.569 with wide range of variations between states e.g. Bihar (0.466) and Himachal Pradesh (0.689).
- YDI score for male 0.625 and female 0.535.
- **Youth Gender Development Index** score is 0.856.
- **Youth Education Index** stands at 0.513.
- **Youth Health Index** score is **0.632**
- **Youth Work Index and Youth Civic Participation** scores are 0.572 and 0.191 respectively.
- **Youth Political Participation Index score at national level is 0.436** which implies that the scope of youth to be politically more active.
- **Youth Social Inclusion Index** score is 0.785.

National Youth Policy 2014
- It was formulated with an aim to empower youth to achieve their full potential, and through them enable India to find its rightful place in the community of nations.
- The priority areas are education, skill development and employment, entrepreneurship, health and healthy lifestyle, sports, promotion of social values, community engagement, participation in politics and governance, youth engagement, inclusion and social justice.

SDG 8- Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

7.6. NATIONAL RURAL DRINKING WATER PROGRAMME

Why in News?

Cabinet has recently approved the continuation and restructuring of National Rural Drinking Water Programme (NRDWP).

More on News

- The restructuring is to make it **outcome-based, competitive and better monitored** with increased focus on sustainability (functionality) of schemes.
- **National Water Quality Sub-Mission (NWQSM)** will be funded under the NRDWP.

NWQSM
- Launched by the Ministry of Drinking Water and Sanitation, in 2017, to bring the water quality of country at par of International Standard by 2020.
- It will provide clean water to habitations affected by major physio-chemicals pollutants such as arsenic, fluoride, iron, salinity and nitrate, by March 2021.
- The Mission adopted the specifications of **Bureau of Indian Standard** for drinking water to declare it contaminated

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About the Programme

- Launched in 2009, under the **Ministry of Drinking water and Sanitation,** operationalized through strategic plan 2011-2022.
- It emphasized on ensuring sustainability of water availability in terms of portability, adequacy, convenience, affordability and equity.
- It is a **Centrally Sponsored Scheme** with 50:50 fund sharing between the Centre and the States.
- It prescribed certain norms for drinking water such as;
  - o 40 liters per capita per day (lpcd) of safe drinking water for human beings.
  - o 30 lpcd additional for cattle in the Desert Development Programme Areas.
  - o One hand-pump or stand post for every 250 persons.
  - o The water source should exist within the habitation/ within 1.6 km in the plains and within 100 mtrs. elevation in the hilly areas.
- Other components include-
  - o Focus on piped water supply, increase level of service delivery, thrust on coverage of water quality affected habitations.
  - o Coverage of Open Defecation Free (ODF) declared villages, Saansad Adarsh Gram Yojana**,** Integrated Action Plan (IAP) districts, Border Out Posts (BOP) with piped water supply and Institutional set up for proper O&M of water supply assets etc.

Challenges for safe drinking water in rural area

- **Economic of Scale:** The modern water supply systems are capital intensive and work relatively better in urban areas due to lack of back-end support (such as electricity, skilled labor etc) in rural areas.
- **Demography:** Scattered and low-density population of rural areas makes it nearly impossible for the governments to invest in quality of safe drinking water.
- **Supply Chain:** In the absence of piped water systems the rural population depends heavily on the contaminated underground water. Moreover, existing supply chain faces rusting, leakages and contamination problem in the due course of supply.

Way ahead

To achieve the **SDG 6** (achieving universal and equitable access to safe and affordable drinking water for all by 2030) various steps need to be taken like-

- **Community participation** and **restoration of tradition water supply system** such as bamboo networks (In Mizoram and other North-Eastern states) need to be incorporated.
- Increasing the availability of fresh water through **rain water harvesting, artificial recharge** of **ground water** may shift the pressure on excessive ground water extraction and thereby reduce the contamination of water.

7.7. CREATION OF NATIONAL TESTING AGENCY

Why in News?

The Union Cabinet chaired by Prime Minister has approved creation of **National Testing Agency** (NTA).

Details

- It is created as a Society registered under the **Indian Societies Registration Act, 1860**, and as an autonomous and self-sustained premier testing organization to conduct entrance examinations for higher educational institutions.

Background

- NTA was recommended in the national education policy 1986 but it was never implemented by previous governments.
- The National Knowledge Commission in its Report to the Nation (2006-2009) also mentions the setting up of a National Testing Service.
- In view of the need to have a specialized body in India like the most advanced countries, the Finance Minister in the **Budget speech of 2017-18** had announced setting up of a National Testing Agency (NTA).

- It would be an **independent body** dedicated on the lines of the Educational Testing Service (ETS) in the United States.
- It will conduct entrance tests entrusted to it by **any department or ministry**.

Features

- It would initially conduct those entrance examinations which are currently being conducted by the CBSE. Other examinations will be taken up gradually after NTA is fully geared up.
- The entrance examinations will be **conducted in online mode** at least twice a year, thereby giving adequate opportunity to candidates to bring out their best.
- To serve the requirements of the rural students, it would locate the centres at sub-district/district level and as far as possible would undertake hands-on training to the students.
- It will be given a one-time grant of Rs.25 crore from the Government to start its operation in the first year. Thereafter, it will be **financially self-sustainable**.

NTA composition
- It will be **chaired by** an eminent educationist appointed by Ministry of Human Resource Development.
- The **CEO** will be the Director General to be appointed by the Government.
- There will be a **Board of Governors** comprising members from user institutions.
- The **Director General** will be assisted by 9 verticals headed by academicians/ experts.

Need for NTA

- **High level of investment**- Modern testing involves considerable investments in IT and physical infrastructure which are not available with standalone universities or colleges.
- **Ease the process**- Due to varied standards of exams in the country, the burden is imposed on the students in terms of time, money (the examination fees) and the stress caused in scheduling and preparing for each examination is tremendous.
- **Provides margin for contingency**- The secondary school board examinations are one-off affairs and the student is not provided the opportunity to improve upon his/her score. There is, therefore, no margin for any contingency or unforeseen circumstance that could affect performance.
- **Common Pool Asset**- Creation of a dedicated agency can provide assessment services as a common pool asset which can be used by other bodies.
- **Other Benefits**- It is expected to relieve CBSE, AICTE and other agencies from responsibility of conducting these entrance examinations, and bring in high reliability, standardized difficulty level for assessing the aptitude, intelligence and problem-solving abilities of the students.

7.8. MISSION FOR PROTECTION AND EMPOWERMENT FOR WOMEN

Why in news?

Recently, Cabinet approved the expansion of **Mission For Protection And Empowerment For Women** and introduced a new scheme **Pradhan Mantri Mahila Shakti Kendra**.

About Mission for Protection and Empowerment for Women

- It is a social sector welfare schemes for care, protection and development of women.
- It aimed at improving the declining Child Sex Ratio; ensuring survival. & protection of the girl child; ensuring her education, and empowering her to fulfill her potential.

Pradhan Mantri Mahila Shakti Kendra (PMMSK)

- **Objective:** To provide an **interface** for rural women to approach the government for availing their entitlements and for empowering them through training and capacity building.

Mission for Protection and Empowerment for Women
- **Aim:** To achieve holistic empowerment of women through convergence of schemes/programmes of different Ministries/ Department of Government of India as well as State Governments.
- It provides expert and technical support in
  - ✓ Poverty alleviation economic empowerment,
  - ✓ Health and nutrition,
  - ✓ Gender budgeting & Gender mainstreaming,
  - ✓ Gender rights gender based violence & law enforcement,
  - ✓ Empowerment of vulnerable & marginalised groups,
  - ✓ Social empowerment & education.
  - ✓ Media and advocacy and
  - ✓ Information technology
- **Nodal agency:** Ministry of Women and Child Development (MWCD)
- **Coverage area:** All State/UTs will be covered under this Scheme through the State Resource Centre for Women (SRCWs).
- **Implemented** through the States/UTs and Implementing Agencies.

- **PMMSK Block level initiatives**: Under it**, community engagement** is envisioned in **115 most backward districts** through Student Volunteers.
  - ✓ It will provide an opportunity to Student Volunteers to participate in the nation development process and bring gender equality in backward district.

7.9. GLOBAL EDUCATION MONITORING REPORT

Why in News?

The 2nd edition of the Global Education Monitoring Report (GEM Report, 2017-18) was recently released by UNESCO with the theme 'Accountability in Education'.

Observations made by the report

- Growing populations gaining access to education, along with evidence of underachievement in learning, have brought into sharp focus persistent deficiencies in provision and quality.
- These, combined with tight education budgets and increased emphasis on value for money worldwide, have countries searching for solutions. Increased accountability often tops the list.
- Ensuring inclusive, equitable and good-quality education is often a collective enterprise in which all actors make a concerted effort to meet their responsibilities. This is because ambitious education outcomes rely on multiple actors fulfilling often shared responsibilities which cannot easily rest with single actors.
- Similarly, no accountability approach can succeed if actors lack an enabling environment or are ill-equipped to meet their responsibilities.
- At the same time, it needs to be realised that if accountability is to help ensure more inclusive, equitable and high-quality education systems, flexible approaches, which make judicious use of available information, are needed. Accountability should be understood as a means to an end – a tool in achieving SDG 4 targets – not a goal of education systems in itself.

Recommendations

Accountability in education starts with governments, which bear the primary duty to ensure the right to education. Report lays out the following recommendations to help governments – but also other actors with a stake in education – to design and implement robust accountability systems.

- Designing robust accountability systems
  - ✓ Governments need to create space for meaningful and representative engagement to build trust and a shared understanding of respective responsibilities with all education actors
  - ✓ They should develop credible education sector plans and transparent budgets with clear lines of responsibility and truly independent auditing mechanisms.
  - ✓ They should develop credible and efficient regulations and monitoring mechanisms and adhere to follow-up actions and sanctions when standards are not met.
  - ✓ They should design school and teacher accountability mechanisms that are supportive and formative, and avoid punitive mechanisms, especially the types based on narrow performance measures.
  - ✓ They need to allow for a democratic voice, protect media freedom to scrutinize education and set up independent institutions for citizens to voice complaints.
- Implementing robust accountability systems
  - ✓ Information: Transparent, relevant and timely data should be made available to decision-makers.
  - ✓ Resources: Adequate financial resources should be provided to fund the education system.
  - ✓ Capacity: Actors should be equipped with the skills and training needed to fulfil their responsibilities.

Ways To Ensure Acccountability

GOVERNMENT

Fulfilment of the Right to Education
- Free and Fair Elections
- Social Movements
- Judicial Systems
- Parliamentary Committees
- Reporting to International Bodies

Equitable Resource Allocation
- Auditing the Budget

Evidence Based Inclusive Planning
- Monitoring and Evaluation

SCHOOL

Whole School Improvement
- Results based Sanctions/ Rewards
- School Choice

Safe and Healthy Places to Learn
- Licensing and Accreditation Standards

Supportive Learning Environment
- School Based Management
- School Inspections

TEACHERS

High Quality Gender-Equitable Teaching
- Teacher Evaluations
- Performance-Based Pay

Student Well-Being
- Community Monitoring

Professional Norms
- Professional Learning Communities
- Code of Ethics

PARENTS

Attendance
- Truancy Laws
- Conditional Cash Transfers

Participation In Child's Education
- Parent - School Meetings

STUDENTS

Good Behaviour
- School - Wide Codes of Conduct

INTERNATIONAL ORGANISATIONS

Common Goals
- Countries Participate in International Bodies

Standards

Aid to Help Achieve Goals
- Aid Reporting

PRIVATE SECTOR

School Meals
- Transparent Contracts
- Monitoring and Regulations

Learning Materials
- Media Security

Private Tutoring
- Code of Conduct

Conclusion

Education is a shared responsibility and progress can only be sustainable through common efforts. Moving forward requires having clear lines of responsibility, knowing when and where those lines are broken and what action is required in response – this is the meaning of accountability, the focus of this Global Education Monitoring Report. The conclusion is clear – the lack of accountability risks

The report talks about various Accountability Mechanisms that may be effective with certain actors, in certain contexts, for certain ends like- political mechanism, legal or regulatory routes, performance based approaches, social accountability, and professional or internal accountability.

However, some of these accountability approaches have not been applied effectively and may even have led to the opposite of what was intended. For example-

- The performance-based accountability seems to focus on outcomes over inputs and uses narrow incentives. Incentives have often been limited to punishments to force compliance or modify behaviour.
- The market-based approach to accountability is based on a conception of education as a consumer good differentiated by quality and price. This approach creates competitive pressure that marginalizes disadvantaged parents and schools. This leads to increased segregation, undermining efforts towards inclusive, equitable, high quality education.
- In terms of externally funded approach, arrangements are created that depend on temporary actor holding another accountable which are not sustainable in the long run.

jeopardizing progress, allowing harmful practices to become embedded in education systems.

7.10. SUB-SCHEMES UNDER ICDS

Why in news?

Recently, Cabinet Committee on Economic Affairs approved the continuation of the sub-schemes under ICDS.

Integrated Child Development Scheme

- It is a flagship government scheme which aims to improve the nutrition and health status of children in age group of 0-6 years and lays foundation of psychological, physical and social development of the child.
- It was launched to reduce the incidence of mortality, morbidity, malnutrition and school dropout among children.
- It also aims to enhance the capability of mothers to take care of the health and nutritional needs of the children.
- In 2016-17, government had rationalised some schemes such as **Anganwadi Services, Scheme for Adolescent Girls, Child Protection Services and National Crèche Scheme** and brought under **Umbrella ICDS** as its sub-schemes.
- These schemes have been continuing since 12th Five year plan.

Sub-Schemes under Umbrella ICDS

- **Anganwadi Services** – It is for holistic development of children under the age of 6 year and pregnant and lactating women.
- **Scheme for Adolescent Girls** – It aims to facilitate, educate and make them self-reliant through improved nutrition and health status.
- **Child Protection Services** – It aims to provide safe and secure environment for children in conflict with law and children in need of care and protection and reduce vulnerabilities.
- **National Crèche Services** –It aims to provide a safe place for children of working mothers while they are at work. Thus empowering them to take up employment.

7.11. MOSCOW DECLARATION

Why in news?

Recently, WHO Global Ministerial Conference on Ending Tuberculosis in the Sustainable Development Era: A Multi-sectoral Response was held in Moscow.

Moscow Declaration

- During the Conference, Moscow Declaration was adopted by representatives from various countries (including India).

Global Incidence of TB

- TB is world's **leading cause of death** from infectious disease. According to findings, in 2016, about 1.7 million people died which had profound economic and social consequences.
- **MDR TB** continues to be a major public health crisis and TB remains a leading cause of death among people living with HIV.
- However it was also found that Global efforts to combat TB had saved an estimated **53 million lives since 2000** and **reduced the TB mortality rate by 37%.**

- The Declaration is a step towards the efforts to achieve **SDG Goal 3.3.2** to end epidemic of TB incidence per 1000 population.
- It aims to **eliminate additional deaths from HIV co-infection by 2020** and establishing a coordinated effort towards **action against TB and non-communicable diseases.**
- It also highlights the important areas for international action to address TB – **sustainable financing, pursuing science, research and development and the establishment of a multisectoral accountability framework.**

7.12. ELEPHANTIASIS

Why in news?

Recently, it was speculated that Government will miss out the set deadline to eliminate Elephantiasis.

Elephantiasis or Lymphatic Filariasis

- It is a **parasitic disease** caused by the parasitic worms called **filial worms** which is spread by the bite of the infected black flies and mosquitoes.
- The disease parasite is usually acquired during childhood. The larvae in the human can live in human beings for up-to 5-8 years without showing any symptoms; however the lymphatic system is damaged. (Please refer to the image)
- Elephantiasis leads to **severe swelling** in arms, legs, knees and genitals causes **disfigurement and disability.**
- It also makes the infected areas vulnerable to even minor scratches especially in rural areas with low sanitation.
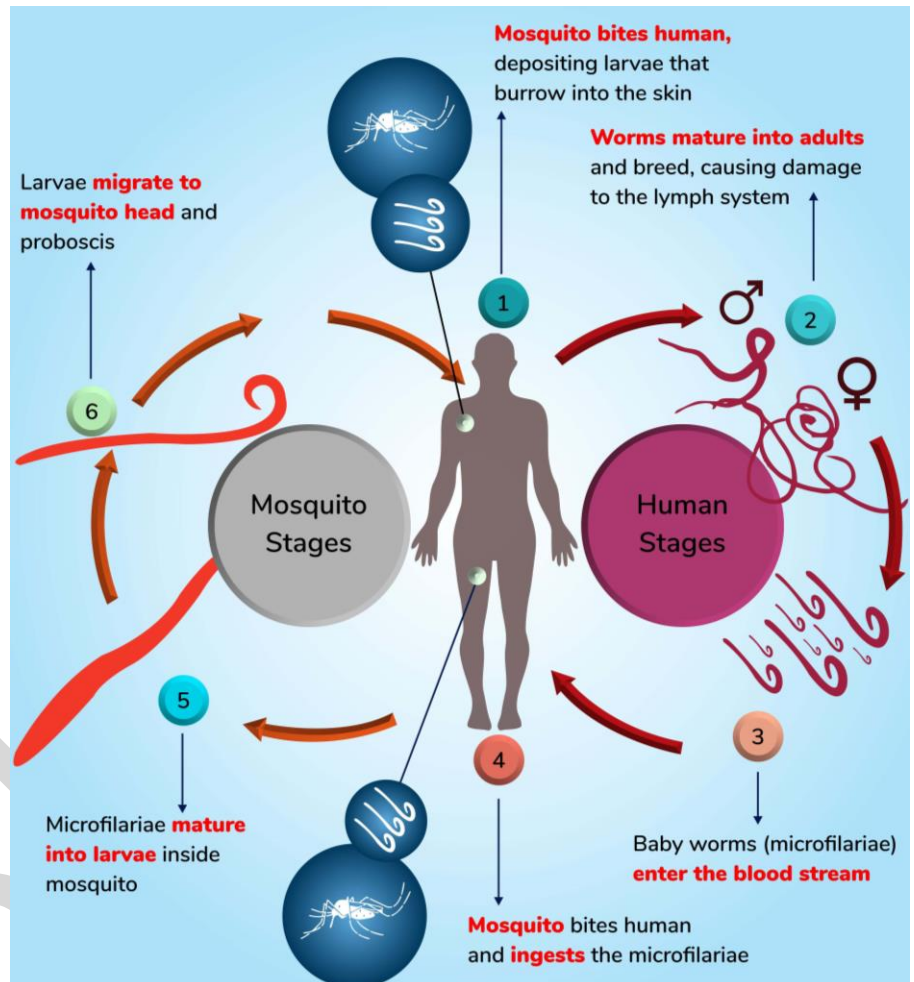
Burden of Disease

- According to WHO estimates over 1 billion people in over 54 countries are at risk of developing disease with 70% of disease burden in India, Indonesia, Nigeria and Bangladesh.
- India alone accounts for 40% of world's disease burden with over 31 million microfilaraemics, 23 million cases of symptomatic filariasis, and about 500 million individuals at risk of contracting the disease.
- India had set the ambitious target to eradicate the disease by 2020 which was earlier set at 2015 under the National Health Policy 2002.

Efforts to eradicate the Disease in India

- In 1995, government launched **National Filaria Control Program** with the objective of
  - o delimiting the problem
  - o undertake control measures in endemic areas and
  - o training personnel to man the programme.

> **'Mass Drug Administration'** is a process under which the entire population in the endemic area is administered with the medication whether or not they show any symptoms of Filariasis.

- In India, since 2004, Mass Drug Administration (MDA) is being carried on as a part of the **Hathipaon Mukt Bharat (Filaria Free India) programme** for preventive medication.
- Under this program, 88.96% of the population in endemic areas (2015) is being administered with two drugs - tablets of diethylcarbamazine citrate (DEC) and albendazole excluding children below 2 years, pregnant women and seriously ill people.
- According to the data by Ministry of Health and Family Welfare Micro flaria rate has fallen from 1.2 % in 2014 to 0.3% in 2015.
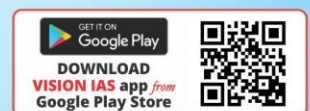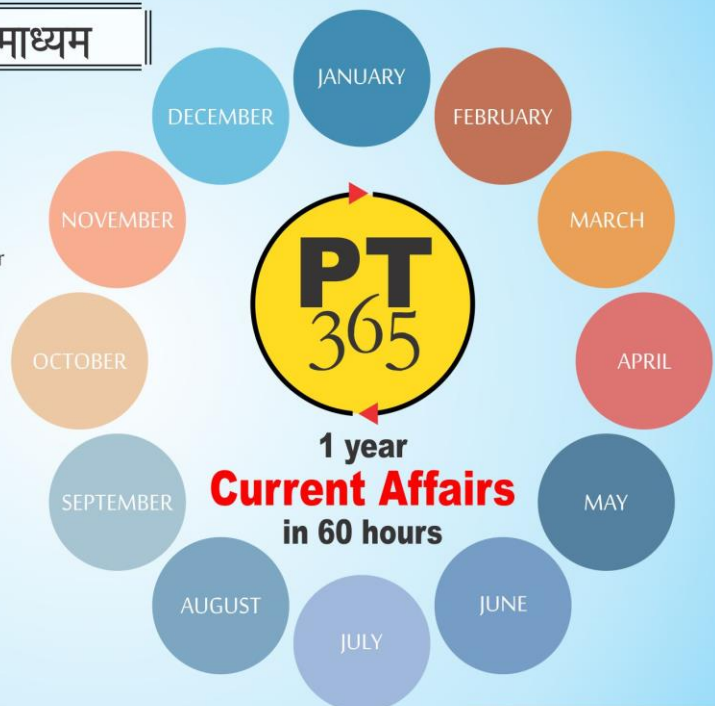
8. CULTURE

8.1. UNESCO AWARD FOR SRIRANGAM TEMPLE

Why in news?

- **Sri Ranganathaswamy Temple in Srirangam in Tamil Nadu** has won the **UNESCO Asia Pacific Award of Merit 2017 for cultural heritage conservation.**

About Sri Ranganathaswamy Temple

- It is considered as one of the most important of the **108 main Vishnu temples (Divyadesams).**
- This temple lies on an **islet formed by the twin rivers: Cauvery and Coleroon.**
- It has seven prakaras or enclosures.
- It is a **Vaishnava** temple built in the **Tamil or Dravidian style of architecture**. The temple and 1000 pillared hall were constructed in the Vijayanagar period (1336–1565) on the site of an older temple.
- The Gopuram of Sri Ranganathaswamy Temple is the biggest gopuram in Asia. It is also called as "Raja Gopuram"
- The temple bagged the UNESCO award for use of traditional methods in renovating temple structures and re-establishment of rainwater harvesting and historic drainage system.

> **UNESCO Asia-Pacific awards for cultural heritage conservation programme**
> - It is aimed at acknowledging the efforts taken to restore and conserve historical structures without affecting their heritage value.
> - The awards are classified under four categories -Award of Excellence, Awards of Distinction, Awards of Merit and Award for New Design in Heritage Context.
> - Mumbai's Christ Church and Royal Bombay Opera House were the other monuments in India that received the Award of Merit this year.

8.2. CHENNAI IN UNESCO'S CREATIVE CITIES NETWORK LIST

Why in News?

Chennai has been recently included in UNESCO Creative Cities list.

What is Creative Cities Network?

- It was **created in 2004** to promote **cooperation with and among cities** that have identified creativity as a strategic factor for sustainable urban development.
- The 7 creative fields, on basis of which the cities are awarded the status, are Crafts & Folk Art, Design, Film, Gastronomy, Literature, Music and Media Arts.
- By joining the Network, cities commit to **sharing their best practices and developing partnerships** with public & private sectors and civil society in order to:
  - strengthen the creation, production, distribution and dissemination of cultural activities, goods and services;
  - develop hubs of creativity and innovation and broaden opportunities for creators and professionals in the cultural sector;
  - improve access to and participation in cultural life, in particular for marginalized or vulnerable groups and individuals;
  - fully integrate culture and creativity into sustainable development plans.
- Chennai has been included in the UNESCO Creative Cities Network for its rich musical tradition. It is the **3rd Indian city** after Jaipur (craft) & Varanasi (music).

> **UNESCO** is responsible for coordinating international cooperation in education, science, culture and communication. It strengthens the ties between nations and societies, and mobilizes the wider public so that each child and citizen
> - has access to quality education
> - may grow and live in a cultural environment rich in diversity
> - can fully benefit from scientific advances
> - and can enjoy full freedom of expression.

8.3. HISTORY OF INDIAN NAVY

Why in news

In the recent Mann ki baat, Prime Minister talked about the greatness of **navy of Chola kingdom.**

About Chola Navy

- **Sangam literature** has numerous references of voyages and expeditions of the Chola navy.
- Chola Navy was considered one of the strongest navies and played a big role in the expansion of the Chola rule to Sri-Lanka and Malay Peninsula
- They possessed a very rich and sound knowledge of ship building.
- Some of the important ports cities of Cholas were Poompuhar/ Kaveripattinam (capital), Arikamedu, Kancheepuram, Nagapattinam etc
- A large number of women played leading roles in Chola navy and actively took part in battles.

Fact about Chola Kingdom

- **Administration:** was marked by well-established **local self-government** in villages
- **Status of women**: The practice of 'sati' was prevalent among the royal families. The devadasi system emerged during their period.
- Development of Tamil literature reached its peak during the Chola period.
- **Examples of Dravidian style of art and architecture:** Brihadeshwara Temple (now a UNESCO World Heritage Site), Nagaeshwvara, Airavateshwara temples
- **Bronze statues of** Nataraja or dancing Siva is master piece of the Chola period.

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9. ETHICS

9.1. TEACHING ETHICS TO CIVIL SERVANTS

Why in news?

The arrest in Chennai of an Indian Police Service (IPS) officer on probation, for cheating during the civil services examination has raised questions on future recruitments to the All India Services and the training of officers.

Ethical issues involved

- **Wider Malaise:** This instance of misconduct by a public official, chosen on merit is symptomatic of a wider malaise and a worrying trend of growing accounts of dishonesty among public officials.
- **Civil Service Training:** The incident throws doubts over the quality of inputs aimed at character-building in civil service training academies.
- **Dent on Moral Integrity and Public Faith:** Civil servants are revered as agents of transformation and leaders in the society. Such instances reflect badly on the reputation of civil servants in society.
- **Economic Cost of Misconduct:** The misconduct on the part of public servants leads to loss of precious resources which were meant to support the economic and social development of the nation.
- **Perceived leniency:** There is a public perception that double standards are applied when punishing criminality in high places and this is further reinforced when services are terminated only on departmental enquiry without prosecuting in court of law. Prior Sanction is also emerging as means to protect tainted public officials and defy the very intent of anti-corruption legislations.

Causes of declining values among civil servants

- **Tolerance for Social Evils:** Society has developed tolerant attitude towards degenerated values of cheating, fraud, nepotism, corruption and crony capitalism etc.
- **Growing competition** for government jobs which increase pressure on youth to perform which may lead them astray, treading towards unethical behavior.
- **Materialism:** Spread of materialistic values in society in general and among civil servants in particular especially with the advent of globalization, liberalization and privatization.
- **Lack of role models** among senior civil servants as well as among the political leadership sometimes dissuade youth from staying morally upright and thus making them part of status quo rather than as agents of change.
- **Institutional Apathy:** Post recruitment very few senior officers take interest in instilling the right values in trainees. This is because of low importance given to responsibility of monitoring training and declining moral standards of senior police officers themselves.

Ways to inculcate ethical values in civil servants

- **Recruitment level:** Selection process must ensure selection of those individuals who not only possess an aptitude for administration but also those who are genuinely public service oriented. Various committees such as the 2nd ARC have detailed specific reforms required in the recruitment process for the same.
- **Training level:**
  o **2nd ARC:** The composition of governing bodies of the national training institutions and also the State Administrative Training Institutes should be broadened by inducting eminent experts.
  o Every government servant should undergo a mandatory training at the induction stage and also periodically during his/her career. Successful completion of these trainings should be a minimum necessary condition for confirmation in service and subsequent promotions.
  o A monitoring mechanism should be set up for overseeing the implementation of the National Training Policy (1996).
- **Post training**
  ✓ **Hota Committee** recommended amending Prevention of Corruption Act and Section 197 of the Code of Criminal Procedure to protect honest civil servants from malicious prosecution and harassment.
    o It also recommended that a Code of Ethics should be drawn up for civil servants incorporating the core values of integrity, merit and excellence in public service.

- o Senior civil servants must engage in guiding new recruits towards the path of ethical behaviour.
- ✓ **2nd ARC**: A **National Institute of good governance** may be set up by upgrading one of the existing national/state institutes. This institute would act as a platform to disseminate best practices, conduct training programmes, thus setting high standards for ethical governance.

9.2. THE VIRTUE AND PRACTICE OF TOLERATION

Why in news?

It is increasingly felt that we are moving towards a fiercely conflict-ridden world in which toleration is needed. Thus a better understanding of tolerance is indispensable in Indian society.

Definition

- Toleration is understood as a fair, objective, and permissive attitude toward those whose opinions, practices, race, religion, nationality, etc. differ from one's own. It accords high respect for human rights, especially freedom of conscience and freedom of thought.
- On the other hand intolerance stems from an assumption of the infallibility and truth of one's beliefs and their superiority over others, which leads to forcible imposition of one's ideology on others, often resulting in violence.

Tolerance as an attitude and Social practise

Toleration as an attitude of Individual and as a social practice manifests in following ways:

- **Negative Toleration:** means refraining from interference in the activities of others despite one finds them morally reprehensible and has the power to do so.
- **Positive Toleration:** While in negative toleration others are reluctantly accepted against a background of prior hatred, positive toleration is essentially a virtue sustained by love, friendliness, fraternity and an admirable stance for others.
- **Toleration due to balance of power:** wherein two groups refrain from interfering because the cost of the ensuing conflict is far too high.
- **Toleration as an attitude of indifference:** This is toleration as an attitude of live and let live, a feature particularly of post-industrial, individualist, liberal societies.

> **Tolerance as an ancient practice in India**
> - **Emperor Ashoka** in his edicts asked his subjects to practice non-violence and respect all faiths and sects in India.
> - **Kautilya** said that a victorious king must respect the conquered country's practices customs and its family traditions.
> - **Jainism** laid great stress on the ideas of non-violence and tolerance through the concepts of anekantavada (the validity of the plurality of assertions) and syadvada (the doctrine of the perhaps).
> - **Akbar** passed laws to abolish the jazia and convened assemblies in which the representatives of every sect and religion could exchange ideas.
> - **Bhakti Poets like kabir** denounced all manifestations of intolerance among Hindu and Islamic scholars, seeing them as pretentious and ignorant.
> - **Gandhi's doctrine** practised the idea of tolerance and non-violence in the political arena through satyagraha to win the freedom for India.

Ways of Cultivating Tolerance in Society

- **Education** should ensure that virtue of tolerance must be inculcated at all levels and prejudices and stereotypes are not perpetuated.
- **Promoting Role models** for tolerance through awards (e.g. UNESCO Madanjeet Singh Award for tolerance) and distributing literature regarding their contributions to society.
- There should be an equal focus on **countering intolerance** through Legal measures, enforcement of human rights, access to information and press freedom, and individual awareness.
- The **press must unequivocally condemn instances of intolerance**, without fear of consequences and incessantly preach the message that no group or body has the monopoly of truth and morality.
- Along with this every citizen should take a **resolve to promote tolerance** in our multi-religious, multi-cultural nation and thereby strengthen and enrich our pluralist democracy, which is the pride of our nation.

10. MISCELLANEOUS

10.1. SAUBHAGYA PORTAL

Why in news?

The Pradhan Mantri Sahaj Bijli Har Ghar Yojana – 'Saubhagya' Web Portal was launched recently.

Highlights of the portal:

- It would disseminate information on household electrification status (state, district, village-wise), and household progress on live basis.
- It offers a feature on village electrification camps that will be organized by DISCOMs in villages for facilitating the instant filling up of application forms to complete mandatory documentation which will speed up the release of electricity connections to households.

> **Saubhagya Scheme**
> - Pradhan Mantri Sahaj Bijli Har Ghar Yojana or Saubhagya scheme aims to provide electricity connections to over 40 million families in rural and urban areas by December 2018.
> - Rural Electrification Corporation Limited (REC) is the nodal Agency for the operationalization of the scheme throughout the country.

10.2. LADAKH RENEWABLE ENERGY INITIATIVE

Why in news?

The Biaras Small Hydro Power Project (SHP) has recently become the first project to be commissioned under the Prime Minister's Ladakh Renewable Energy Initiative.

More about the news

- Prime Minister's Ladakh Renewable Energy Initiative aims to reduce dependency on diesel, kerosene and firewood in the region through setting up small/micro hydel projects, solar photovoltaic (SPV) power plants, solar thermal systems such as water heating, solar cookers etc.
- It is being implemented by the Ministry of New and Renewable Energy.
- The Biaras project has been developed by Kargil Renewable Energy Development Agency (KREDA) under Ladakh Autonomous Hill Development Council.

10.3. UMANG APP

Why in news?

Government has recently launched **UMANG or Unified Mobile Application for New-age Governance** app.

Highlight

- It aims to build a common, unified platform and mobile app to facilitate single point of access for government services (centre, state and utility services) through mobile.
- It is **a multi-utility app** and integrates with other core government services of Aadhaar, DigiLocker, Rapid Assessment System, and Bharat Bill Payment System etc. and supports 13 Indian languages
- It has been developed by the **Ministry of Electronics and Information Technology (MeitY)** and **National e-Governance Division (NeGD).**

10.4. INDIA ROAD ASSESSMENT PROGRAMME

Why in news?

Recently International Road Assessment Programme has launched India Road Assessment Programme (IndiaRAP) that will rate highways' safety levels, and seek to eliminate the most unsafe roads.

About the Programme

- **International Road Assessment Program (IRAP)** is a charity which is dedicated towards preventing road accidents and making roads safe.

- The IndiaRAP programme is being supported by FedEx Express and will be hosted by the Asian Institute of Transport Development.
- It will also build **local capacity and expertise** by connecting Indian road safety experts with colleagues from around the world.
- It will provide road safety rating by using **IRAP's evidence based Star Rating methodology and investment planning tools** which will provide a simple and objective measure of **the level of safety.** (1 being worst and 5 being best rated roads).
- **IndiaRAP** will seek to eliminate one and two star rated roads and promote construction and design of safe and smart roads in the country.

10.5. NIVESH BANDHU

Why in news?

Recently, an investor facilitation portal named Nivesh Bandhu was launched during the World Food India Expo, 2017.

More on news

- The portal would provide information on Central and State Governments' investor friendly policies, agro-producing clusters, infrastructure, and potential areas of investment in the food processing sector.
- Ministry of Food Processing Industries and Food Safety and Standards Authority of India has also launched the Food Regulatory Portal.
- It has been planned as a single interface for food businesses to cater to both domestic operations and food imports.
- It hosts multiple IT platforms at one point to facilitate food businesses and reduce compliance burden.

10.6. DEEN DAYAL SPARSH YOJANA

Why in news?

Recently, government launched SPARSH Yojana to increase reach of Philately.

Philately - It includes seeking, locating, acquiring, organizing, cataloguing, displaying, storing, and maintaining the stamps or related products on thematic areas.

Scholarship for Promotion of Aptitude & Research in Stamps as a Hobby-SPARSH Yojana

- It is a pan India scheme launched by the government to increase the collection and study of postal stamps.
- There is a component of annual scholarship for rewarding meritorious students pursuing Philately as a hobby**.**
- The Concerned schools would also be provided with Philately mentor to **guide the young philatelists** in order to pursue their hobby and projects.