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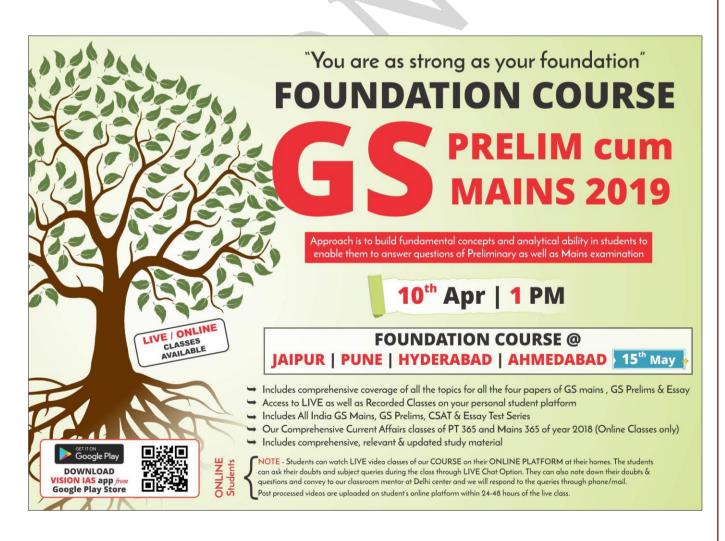
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Table of Contents

1. POLITY AND CONSTITUTION 4	3.16. Government E-Marketplace (GeM) 3.037
1.1. National Medical Commission Bill4	3.17. GST E-Way Bill37
1.2. Electoral Bonds6	3.18. Model Concession Agreement for Port
1.3. Office of Profit7	Development38
1.4. Totalizer Machines9	3.19. UDAN 240
1.5. Criminal Justice System9	3.20. Jal Marg Vikas Project41
1.6. National Register of Citizen11	3.21. Logistics Ease Across Different States41
2. INTERNATIONAL RELATIONS 13	3.22. Amendments in Foreign Direct Investment (FDI) policy42
2.1. Foreign Aid to Poor13	3.23. Universal Exchange42
2.2. India-ASEAN14	3.24. India BPO Promotion Scheme and North
2.3. India Gets Entry into Australia Group15	East BPO Promotion Scheme43
2.4. India Israel16	3.25. National Investment and Infrastructure
2.5. India-Myanmar18	Fund44
2.6. Polar Silk Road19	3.26. IRFC's First Green Bond45
2.7. Iranian Protests19	4. SECURITY47
2.8. US Special Watch List20	4.1. Cyber Security47
2.9. National Knowledge Network20	4.2. Aaddhar Security48
2.10. Raisina Dialogue21	4.3. Private Participation in Defence49
3. ECONOMY22	4.4. Agni V50
3.1. Banking Reforms Roadmap22	4.5. INS Karanj51
3.2. Agricultural NPAS Spike23	5. ENVIRONMENT52
3.3. Report of the Committee on Doubling	5.1. Disaster Resilient Infrastructure52
Farmers' Income24	5.2. Indian Tsunami Early Warning System53
3.4. Price Deficiency Payment (PDP) Scheme _25	5.3. Urban Heat Island53
3.5. CAG Report on FSSAI26	5.4. Carbon Sink54
3.6. Organic Food27	5.5. Leed for Cities55
3.7. National Year of Millets29	5.6. Environmental Performance Index56
3.8. Pink Bollworm Attack on Cotton30	5.7. Himalayan Research Fellowships Scheme_56
3.9. The Problem of Land Hoarding30	5.8. Zero Budget Natural Farming57
3.10. Floor Space Index31	5.9. Mangalajodi Ecotourism Trust58
3.11. Inclusive Development Index32	5.10. Sikkim Allows Forging Relationship with
3.12. World Employment and Social Outlook	Trees58
201833	5.11. New Moth Species58
3.13. Global Talent Competitiveness Index33	6. SCIENCE AND TECHNOLOGY60
3.14. Global Manufacturing Index34	6.1. Supercomputers Pratyush and Mihir60
3.15. Electronics Manufacturing in India34	6.2. PSLV C4060

6.3. NASA Missions for 2018	61
6.4. Blue Moon	62
6.5. The Removedebris Mission	62
7. SOCIAL	64
7.1. Social Protection	64
7.2. All India Survey on Higher Education	65
7.3. ASER Annual Report	66
7.4. Fertility Trend in India	67
7.5. Pictorial Warning on Tobacco Produc	cts68
7.6. First India-Designed Vaccine Pass Test	
7.7. India Misses Kala Azar Elimination	
7.8. Food Poisoning	
7.9. India's Spending on R&D	72
7.10. Women Set to be Inducted in To	
7.11. Project Stree Swabhiman	74

7.12. Online Portals 'Nari' And 'E-Samvaad'	_74
7.13. Habitat Rights to PVTGs	_75
7.14. Report of National Commission Nomadic Tribes	
8. CULTURE	_78
8.1. Sangrai dance	_78
8.2. Battle of Koregaon	_78
8.3. Medaram's Jatara	_78
9. ETHICS	_80
9.1. Ethics and Clinical Trials	
10. MISCELLANEOUS	_81
10.1. Maharashtra's Public Cloud Policy	_81
10.2. Operation Digital Board	_81
10.3. SFOORTI App	_81
10.4. GI Tag for Nilambur Teak	_81
10.5. Liveability Index	_82
10.6. Anniversary of India's First Newspaper_	_82



1. POLITY AND CONSTITUTION

1.1. NATIONAL MEDICAL COMMISSION BILL

Why in news?

Recently, National Medical Commission Bill, 2017 was introduced in Lok Sabha.

Background

- Prof. Ranjit Roy Chaudhury committee (2015)
 recommended structurally reconfiguring the MCl's
 functions and suggested the formation of a National
 Medical Commission.
- Lodha Panel, constituted in 2016 by Supreme Court to oversee the functioning of MCI and its policy decision making. However, its recommendations were not implemented.
- Committee headed by Dr. Arvind Panagariya formed to address concerns over quality of medical education, proposed to repeal Indian Medical Council Act, 1956.

Key Features of the Bill

- Establishing National Medical Commission (NMC): It
 will be an Umbrella body which will subsume the MCI
 and regulate the medical education and practice in India.
 - It will consist of 25 members, appointed by the central government which will include representatives from Indian Council of Medical Research, and Directorate General of Health Services.
 - Members' tenure will be of four years, and they will not be eligible for extension or reappointment.
- State Medical Councils (SMC): Each state will establish their respective SMC within three years which will have a role similar to the NMC, at the state level.
- Medical Advisory Council (MAC):
 - It will provide platform to states/union territories to express their views and concerns before the NMC and help in shaping the overall agenda, policy and action relating to medical education and training.
 - o It will advise the NMC on measures to maintain minimum other bodies in India.

 standards of medical education and research and enable equitable access to medical education.
 - Composition: It is a 67 member body, consisting of all the member of NMC as its ex-officio members along with members nominated by states/union territories and other government bodies like UGC etc
- Four Autonomous Boards under supervision of NMC:
 - Under-Graduate Medical Education Board (UGMEB) and the Post-Graduate Medical Education Board (PGMEB)- Responsible for formulating standards, curriculum, guidelines, and granting recognition to medical qualifications at the undergraduate and post graduate levels respectively
 - Medical Assessment and Rating Board (MARB): It will have the power to levy monetary penalties on medical institutions (1.5 to 10 times the annual tuition fee) which fail to maintain the minimum standards as laid down by the UGMEB and the PGMEB. It will also grant permission for establishing a new medical college.

Medical Council of India (MCI)

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

Issues with MCI

As identified by Parliamentary Standing Committee for Health and Family Welfare in 2016.

- It failed to produce sufficient number of doctors, for instance, there is one doctor for every 1,674 people against WHO norm of one doctor for every 1000 people.
- Shortage of teachers in medical colleges and poor regulation of undergraduate and postgraduate courses.
- Lack of accountability, alleged corruptions and failure to discharge mandated responsibilities.

Functions of NMC

- 1. Framing policies for regulating medical institutions and medical professionals.
- 2. Assessing the requirements of healthcare related human resources and infrastructure.
- 3. Ensuring compliance by the State Medical Councils.
- Framing guidelines for determination of fees for up to 40% of the seats in the private medical institutions and deemed universities.
- Recognizing medical qualifications granted by universities and medical institutions in and outside India and qualifications granted by statutory and other bodies in India.

- Ethics and Medical Registration Board- will maintain a National Register of all licensed medical practitioners, and regulate professional conduct. Only those included in the Register will be allowed to practice medicine.
- Uniform National Eligibility-cum-Entrance Test (NEET) will be conducted for admission to under-graduate medical education in all medical institutions regulated by the Bill.
- **National Licentiate Examination** for the students graduating from medical institutions to obtain the license for practice and admission into post-graduate courses at medical institutions.
- **Bridge course-** It allows practitioners of homoeopathy and Indian systems of medicine to prescribe allopathic medicine upon completion of a course.
- **Ease of regulation**: Medical colleges will need permission only once for establishment and recognition, with no need for annual renewal. Colleges can also increase the number of undergraduate seats and start postgraduate courses on their own.

Significance

- Bill aims to repeals the Indian Medical Council Act, 1956 and dissolves the current Medical Council of India (MCI) and provide for a medical education system which ensures:
 - ✓ Availability of adequate and high quality medical professionals especially in rural areas.
 - ✓ Adoption of the latest medical research by medical professionals.
 - ✓ An effective grievance redressal mechanism.
- **Improve Accountability and Transparency** A mandatory assessment and rating of medical colleges on annual basis will help in moving towards outcome-based monitoring.
- Integration of medical practices: It calls for joint sitting of the National Medical Commission, the Central Council of Homoeopathy and the Central Council of Indian Medicine at least once a year, to enhance the interface between homoeopathy, Indian systems of medicine and modern systems of medicine.
- **Emergency provision-** In an unforeseen situation, NMC can permit a medical professional to perform surgery or practice medicine without qualifying the National Licentiate Examination.

Concern

- Over-centralization of NMC: According to Indian Medical Association (IMA), NMC will cripple the functioning
 of the medical profession by making it completely answerable to the bureaucracy and non-medical
 administrators.
- **Against federal setup**: Previously, all the State governments had representation in MCI while in proposed setup, only five States in rotation will have representation in NMC.
- Issue with Bridge courses:
 - ✓ It allows practitioner of Indian medicine system to prescribe allopathic medicines without even passing the licentiate examination.
 - It might also encourage many traditional practitioners to move towards allopathy which is detrimental for government effort of popularizing traditional medicines in country.
- Enforcing NEET might result in the mushrooming of expensive coaching centres, making medical education beyond the reach of financially disadvantaged students.
- **Bill permits 60% of seats to be open for managements** which might increase rent seeking activity, increase cost of medical education and reserve medical education only for the rich and well off.

Way forward

- There is a need for thousands of community-level accredited practitioners not full-fledged doctors who after training should be equipped to provide the first line of care for acute conditions and to make referrals to a regular doctor within a GPS-supervised system. This to some extent has been addressed by the bill.
- There can be various other steps that may help improving the health care sector in the country, like
 - o Introducing **3 year diploma** for rural medical-care providers as practiced in India under **Licentiate Medical Practitioners (LMP) scheme** till 1946.
 - o **Encouraging inter-professional education** between medicine, nursing and allied health professional training to produce nurse practitioners, nurse anaesthetists, physician assistants etc.

- The bill should recognize the scope for **integrative medicine** but without mixing medical systems and practitioners through bridge courses.
- The bill is well intended but unless the it confronts reality and addresses it, keeping consumer interest paramount, the new law will make little difference to people's lives.
- Currently, Bill had been **referred to the Standing Committee** in the Lok Sabha which will provide an opportunity of engaging **with all stakeholders** and examining bill in a holistic and comprehensive manner.

1.2. ELECTORAL BONDS

Why in news?

 The government has recently notified the Electoral bonds scheme announced in budget 2017-18 to boost transparency in political funding.

Background

- According to an ADR (Association of Democratic Reforms) analysis, 69% of the total income of national and regional parties between 2004-05 and 2014-15 was contributed through funding from unknown sources.
- The 255th Law Commission Report on Electoral Reforms observed that opacity in political funding results in "lobbying and capture" of the government by big donors.
- Electoral bonds were announced in Union Budget 2017-18 and the required amendments in Reserve Bank of India Act, 1934 (Section 31(3)) and the Representation of People Act, 1951 were made through Section 133 to 136 of Finance Bill, 2017.

Pros of Electoral Bonds

- Tackling Black Money in Political Funding: As electoral bonds will be purchased through KYC compliance therefore it would induce funding through clean money.
- Increasing Transparency and Accountability -Filing of returns is a welcome step in evaluating the quantum of money received by political parties as donations.
- Anonymity Anonymity will help guard against India's "vindictive" political culture in which parties could penalise donors for funding rival political forces.
- POLITICAL FUNDING CLEAN-UP What Is An Electoral Bond An interest- free financial instrument for making anonymous donations to political parties; resembles a promissory note Who May Purchase These Bonds A Citizen of India or a body incorporated in the country **Bond Denominations** ₹1,000, ₹10,000, ₹100,000, ₹1 million, ₹10 million; can be purchased from selected branches of SBI When May Such Bonds Be Bought Redeemable in the designated account of a registered political party Which Political Parties Are Eligible To Receive Donations Through secured 1% votes in the last Lok Sabha or state assembly elections and are registered under Section 29A of the Representation of the People's Act, 1951 Other Details Political parties will be required to be eligible for exemption, provided returns are filed by the political party
- Short span of 15 days for redeeming the electoral bonds will prevent it from being a parallel currency.
- Stringent clause of eligibility will filter out political parties that are formed on the pretext of tax evasion.

Cons

• **Opacity** - The knowledge of the quantum of money donated, by whom and to which political party will only be known to certain entities again bringing an element of opacity for the public.

- Section 29C of RPA,1951 enjoins political parties to report on all contributions above Rs 20,000 to the EC. However, an amendment in finance bill kept electoral bonds out of the purview of this section. Therefore, parties will not have to submit records of electoral bonds received to the EC for scrutiny.
- Political parties are legally bound to submit their income tax returns annually under Section 13A of the Income Tax Act, 1961. However, finance bill also sought to exempt electoral bonds from IT Act. Thus, removing the need to maintain records of names, addresses of all donors who contributed even more than Rs 20,000.
- **Favours ruling party** SBI being a government owned bank will hold all the information of the donors which can be favourable to the party in power and also deter certain entities from donating to opposition due to fear of penalisation.

Unchecked Corporate Sector-

- Under the Companies Act, political donations by companies cannot be made without express approval of the board of directors through a resolution.
- Also, corporates could only contribute up to a maximum of 7.5% of its average net profit earned during the three immediately preceding financial years. However, this restriction has been done away with for electoral bond through Finance Act 2017.
- Amendments to the companies act will enable corporates to donate any quantum of money which may lead to unholy nexus with corporates with no regulatory oversight.
- o It may also lead to **emergence of shell companies** formed to make donations paving an alternative way to infuse black money in political funding.
- Companies also no longer have to share the name of the political party they have donated to. This will
 result in shareholders having no knowledge of where there money is going.
- o The corporate donor cannot be prohibited from reporting the donation informally to the donee party.

Way Forward

Various ways that may bring more transparency in political funding are-

- Switching to complete digital transactions.
- Donations above a certain limit be made public to break the corporate-politico nexus.
- Political parties should be brought under the ambit of RTI as followed in countries like Bhutan and Germany.
- Establish a **national electoral fund** where donors contribute and funds are distributed among different parties according to their respective performances in the last elections. This will also weed out black money as well as ensure anonymity to donors.
- State funding of elections, as proposed by Dinesh Goswami Committee (1990), with proper audit.

1.3. OFFICE OF PROFIT

Why in news?

Recently 20 MLA's in Delhi were disqualified by President for holding Office of profit.

More about the news

- In 2015 Delhi government appointed 21 of its legislators as parliamentary secretaries.
- It was followed by amendments to Delhi Members of Legislative Assembly (Removal of Disqualification) Act, 1997, with retrospective effect to exempt the post of parliamentary secretary from the definition of the "office of profit".

Article 102 (1) a: Disqualifications for membership

A person shall be disqualified as a Member of Parliament for

- a) Holding an office of profit under government of India or state government;
- b) Being of unsound mind;
- c) Being an undischarged insolvent;
- d) Not being an Indian citizen or for acquiring citizenship of another country.

Article 191 (1) (a)

Disqualification of members for the members of state assemblies for holding Office of Profit and other disqualifications mentioned above.

Section 15(1)(a)of Government of National Capital territory of Delhi (GNCTD) act, 1991,

A person shall be disqualified for being chosen as, and for being, a member of the legislative assembly if he holds any office of profit" under the government of India, a state or a union territory" other than an office protected by law.

- However, Lt. Governor's assent to the amendment bill was not given, requiring the disqualification of the MLAs.
- The Election Commission (ECI) recommended President for their disqualification because:
 - Their position as parliamentary secretaries was a government office.
 - The office had the potential to yield profit and it had executive functions akin to that of a minister
- The recommendations of ECI are binding on the President or Governor regarding the issues related to article 102 & article 191.

Parliamentary Secretary

- S/he is a member of the parliament who assists a more senior minister with his or her duties.
- They often hold the **rank of Minister of State** and have the same entitlements and is assigned to a government department.
- Manipur, HP, Mizoram, Assam, Rajasthan, Punjab, Goa are some of the states where MLAs have been appointed Parliament Secretaries by the Government.

What is Office of Profit?

- Articles 102(1) a and 191 (1) a mention disqualifications on the basis of Office of Profit but it is neither defined in the constitution nor under Representation of People's Act.
- Supreme Court in Pradyut Bordoloi vs Swapan Roy (2001), the Supreme Court outlined the following questions for the test for office of Profit:
 - Whether the government makes the appointment;
 - Whether the government has the right to remove or dismiss the holder;
 - Whether the government pays the remuneration;
 - o What are the functions of the holder and does he perform them for the government; and
 - o Does the government exercise any control over the performance of those functions
- Further in Jaya Bacchan v. Union of India case SC defined it as "an office which is capable of yielding a profit or pecuniary gain." thus it is not the actual 'receipt' of profit but the 'potential' for profit that is the deciding factor in an 'office of profit' case.

Arguments in favor of Disqualifications

- **Against Separation of Powers:** By Holding an Office of Profit a legislator cannot exercise his functions independent of executive of which he/she becomes a part.
- **Circumventing Constitutional Provisions:** Office of Parliamentary Secretaries or other such offices are used by state governments to circumvent the constitutional ceiling of 15 % (10% in case of Delhi) on the number of ministers they can appoint.
- Exercise of Power by Patronage:
 Parliamentary Secretaries participate in high-level meetings of the governments, have full time access to the Ministers and ministerial files and this access enable them to wield influence and power by way of patronage.
- They are also misused to secure political support and as alternatives to ministerial berths in era of Coalition Politics.
- Threat to Public Interest: Unlike ministers, the Parliamentary Secretaries are not administered under the Oath of Secrecy (Art 239 AA(4)), yet may be privy to such information which may threaten public interest, breed corruption or may even threaten national security.
- Other issues associated with Offices of Profit include arbitrary exercise of legislative power

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- Joint Committee on offices of profit
- It consists of 15 members drawn from both the houses of Parliament.
- It examines the composition and character of the Committees appointed by the Central and State Governments and recommends what offices should or should not disqualify a person for being, a member of either House of Parliament.
- It has defined Office of Profit as:
 - Whether the holder draws any remuneration, like sitting fee, honorarium, salary, etc. other than Compensatory allowance.
 - Whether the body in which an office is held, exercises executive, legislative or judicial powers or confers powers of disbursement of funds, allotments of lands, issue of licences, etc., or gives powers of appointment, grant of scholarship, etc.
 - Whether the body in which an office is held wields influence or power by way of patronage.

through amending laws, drain of public money due to oversized cabinet, political opportunism through arbitrary use of amendments and, thus, differing status across states.

Conclusion

- The office of profit is **inspired from U.K** but in U.K there is **no general theory of disqualifications** and specific list of such offices is provided under legislation. In India, on the other hand, there is **general disqualification** prescribed under the constitution while parliament specifies specific exemptions by law.
- As the Judicial pronouncements on Office of Profit have been varied, the matter **must be referred to Joint**Parliamentary Committee to determine which of the offices would attract disqualification.

1.4. TOTALIZER MACHINES

Why in news?

Recently, Attorney General and Election Commission opposed Central Government's stand against 'totalizing' of votes for counting after elections.

Background

- The first recommendation for amending the Election Rules to provide for the use of Totalizer Machine was put forward by Election Commission of India (ECI) in 2008.
- It was also recommended by Law Commission in its 255th Report of 2015.

Totalizer Machines

- It is an interface, to which a cluster of EVMs can be connected simultaneously and the consolidated result of the group of EVMs can be obtained without disclosing the votes polled by a candidate polling-station-wise.
- Counting of votes polling-station-wise reveals the voting trends in each polling station thus leaving the voter open to **pre and post poll intimidation**, harassment and victimization by the political parties (for e.g. delaying infrastructure developing or other welfare activities).
- It will add an **extra layer of security** to the voting process thus upholding the basic **principle of secret ballot** as the present EVMs do not provide any avenues for mixing of votes. Mixing of votes is analogous to physical mixing of votes as mandated under the **Rule no 59A of the Election Rules** which states "mixing of votes in cases where it is considered 'absolutely necessary'."
- However, it has been argued that it **camouflages the booth-wise performance** of candidates which is essential for parties to devise **"booth-management"** strategies (working at booth level to mobilise voters).

Way Ahead

- It can be incorporated by amending the Rule 66A of The Election Rules (dealing with counting of votes
 where electronic machines are being used) to empower the ECI to decide when and where to employ
 totalizer after taking into consideration the election context and any threats of intimidation or victimization.
- Further, Booth-management strategy which is of crucial importance to political parties could be even carried with the help of party workers instead of depending upon the poll results.

1.5. CRIMINAL JUSTICE SYSTEM

Why in News?

The government is considering revisiting the **Malimath Committee report** on reforms in the criminal justice system (CJS).

Criminal Justice System

- It refers to the agencies of government charged with enforcing law, adjudicating crime, and correcting criminal conduct.
- It is composed of three components: police, courts, and prisons which are seen as interrelated, interdependent, and striving to achieve a unified goal.

About the Committee

- In 2000, the government formed a panel headed by the former Chief Justice of Kerala and Karnataka, Justice V.S. Malimath to suggest reforms in the existing criminal justice system.
- It was the first time that the State constituted such a Committee for a thorough and comprehensive review of the entire Criminal Justice System in the country.
- The committee submitted its 158 recommendations in 2003.
- However, its recommendations were not brought to practice.

 The Indian Penal Code (IPC) 1860, the Code of Criminal Procedure (CrPC) 1973, along with parts of the Indian Evidence Act 1872, constitute Indian criminal law. A large number of special and local laws take care of various other antisocial activities.

Need to Review CJS

- Since the adoption of CrPC & IPC there have been numerous changes in the situations and the nature of crime in the country.
- There has been a visible **hike in the number of crimes** committed as well as reported in the country and there is apparent burden on police.
- Due to aspects like Bail Justice & Prison justice system, appx 60 percent of the arrests made every year are unnecessary and unjustifiable, as estimated by National Human Rights Commission.
- The current judicial system faces problems like **pendency of criminal cases**, very low rate of conviction, etc. which has gradually made the system an unreliable source of providing justice.
- Nowhere have the broad objectives of the Criminal Justice System been codified, though these can be inferred from different statutes, including the Constitution and judicial pronouncements.
- All this has led to inadequacy of the system which not only poses grave **challenge to the legitimacy of the system**, but also affects the social system adversely.
- Other issues include lack of coordination between investigation and prosecution, inadequate witness protection, insensitivity to the rights of the victim etc.

Some important recommendations of the Report

- Borrowing from inquisitorial system in countries such as Germany and France. Also, the courts be bestowed with powers to summon any person — whether or not listed as a witness — for examination, if it felt necessary.
- Right to silence- Article 20 (3) of the Constitution that protects
 the accused from being compelled to be a witness against
 himself/herself may be modified. The court be given freedom to
 question the accused to elicit information and draw an adverse
 inference against the accused in case the latter refuses to
 answer.

Inquisitorial System

- It is a legal system where the court or a part of the court is actively involved in investigating the facts of the case.
- This is opposed to an adversarial system, usually followed in India, where the role of the court is primarily that of an impartial referee between the prosecution and the defence.
- Rights of the accused- A schedule to the Code be brought out in all regional languages so that the accused knows his/her rights, as well as how to enforce them and whom to approach when there is a denial of those rights.
- Justice to victims of crime-
 - The victim should be allowed to participate in cases involving serious crimes and also be given adequate compensation.
 - If the victim is dead, the legal representative shall have the right to implead himself or herself as a party, in case of serious offences.
 - o The State should provide an **advocate of victim's choice** to plead on his/her behalf and the cost be borne by the State if the victim can't afford it.
 - Victim compensation is a State obligation in all serious crimes, whether the offender is apprehended or not, convicted or acquitted.
 - A Victim Compensation Fund can be created under the victim compensation law and the assets confiscated in organised crimes can be made part of the fund.
- Police investigation- To improve the quality of investigations National Security Commission and State Security Commissions may be constituted, an Addl. SP be appointed in each district to maintain crime data, organisation of specialised squads to deal with organised crime, etc.
- Courts and judges- It specified the need for more judges in the country.
 - Further, the higher courts have a separate criminal division consisting of judges who have specialised in criminal law.
 - National Judicial Commission be constituted and Article 124 be amended to make impeachment of judges easier.

- **Witness protection** The committee batted for a strong witness protection mechanism it said the judge should be ready to step in if the witness is harassed during cross-examination.
- Offences against women- It recommended various changes in regards to crime against women. For example- it favoured making section 498A (dowry harassment) as a bailable and compoundable offence.
- **Organised crime and terrorism** Though crime is a State subject, a central law must be enacted to deal with organised crime, federal crimes, and terrorism.
- **Periodic review** Presidential Commission for a periodical review of the functioning of the Criminal Justice System.

1.6. NATIONAL REGISTER OF CITIZEN

Why in news?

State of Assam published the first draft of updated National Register of Citizen (NRC).

About National Register of Citizen

- NRC contains the names of bona fide Indian Citizens (of Assam) that distinguish them from the foreigners. It is updated periodically.
- However, in Assam the updation could not be carried on since 1951 due to various political tensions such as Assam Movement of 1980s, the language movement and other ethnic movements.

Assam Agitation (1979-1985)

- It was a reactionary movement, led by All Assam Student Union (AASU), who were instigated by various cultural, political & economic threats (like loss of jobs in favor of the immigrants).
- After six years, a memorandum of settlement called Assam Accord was signed between Union Government and AASU.
- But after the Supreme Court judgment (2014), NRC is now being updated in a time bound manner to incorporate Assam Accord of 1985 in order to tackle the **issue of illegal immigration from Bangladesh**.
- The NRC will include names of person or their descendants whose name appear in NRC 1951 or any of the Electoral Rolls up to the midnight of 24th March 1971.

Significance of Updated NRC

- **Issue of identity** The move can solve the problem of identity crisis being faced by the local Assamese population due to influx of migrants from Bangladesh and Nepal.
- **Reducing pressure on resources** The identified illegal immigrants could then be deported back to their respective countries thus reducing the pressure on natural as well as economic resources of the state.
- **Political stability** The updated NRC would also resolve the issues raised by AASU and other groups further giving way to a peaceful political situation in the state.
- Security issues- Illegal migration also poses security issues which shall be resolved after the completion of the process of updation of NRC.

Challenges of updating the NRC

- **Complicated procedure-** The names of the people which do not appear will have to undergo a complicated process of document verification to establish nationality either through the legacy data or the documents mentioned in the list B.
- Section 6a of the Citizenship Act 1955 has been questioned on the grounds of inequality and discrimination. The judgment on the issue is still pending in the Supreme Court.
- Citizenship Amendment Bill makes the illegal migrants from Afghanistan, Pakistan and Bangladesh belonging to Hindu, Sikhs, Buddhists, Jain etc. eligible for Indian citizenship. This stands as an impediment to the fulfillment of the spirit of updating NRC and also in contravention to the demands of Assamese indigenous population.

Section 6a of the Citizenship Act 1955 was added after amending citizenship act in 1985 to accommodate the Assam Accord. It gave citizenship to all migrants from Bangladesh who came to Assam till the midnight of March 24, 1971, while the cut-off date for the rest of the country is July 19, 1948.

• Humanitarian Crisis- In the absence of Bangladesh's cooperation and a well-defined extradition policy deportation may create a humanitarian crisis since the migrants living in Assam for a long time have settled and expanded families. This may even fiddle with the contentious Indo-Bangla Relations.

• Question on the authenticity of process- The process of updation is raising questions of the authenticity of the whole process as the draft doesn't indicate the number of the illegal migrants. It also being doubted on the grounds of transparency and possible political gains that may be involved.

Way Ahead

- Till the **bilateral extradition policy** is formulated by both the countries, as a temporary alternate, those proven non-citizens should be provided work permit for a shorter duration of time.
- **Cooperation of the local politicians** and various party workers should be roped in to accommodate easy and hassle free document verification for those whose name do not appear in the first draft.
- Bangladesh Diplomats should be invited to verify the process and discuss the way ahead to avoid any humanitarian crisis and strains in bilateral relations.
- As a measure to **enhance security** of the border areas, **the process of border fencing** should be taken up. Physical fencing should be further supplemented by **the modern state of art electronic devices.**
- Measures such as giving permits and multipurpose identity to citizens of border areas in pursuance of trade and personal contacts should also be incorporated as has been adopted between India and Myanmar.



2. INTERNATIONAL RELATIONS

2.1. FOREIGN AID TO POOR

Why in News?

A paper "Does foreign aid target the poorest?" was recently published.

Trends in ODA

- In 1970, the United Nations agreed that economically advanced countries should provide 0.7% of their gross national income (GNI) as ODA.
 - such as food, health, infrastructure and transport.

 Loans and credits for military purposes are excluded.

It means financial or technical help given by one

country's government to another country to assist social

and economic development or to respond to a disaster in

It can involve providing financial grants or loans,

technical advice, training, equipment and commodities

What is Official Development Assistance (ODA)?

the receiving country.

- The commitment was further reiterated in the Millennium Development Goals (2000), and now in the Sustainable Development Goals (SDG1- End poverty in all its forms everywhere).
- Global ODA has grown from around US\$40 billion in the 1960s to US\$128 billion in 2012. Nearly two-thirds of ODA comes from five G8 countries that are consistently the largest donors by volume: the US, the UK, Germany, France and Japan.
- Sub-Saharan Africa receives the greatest proportion of ODA (35% in 2011), followed by South Asia (17%).

Need for Foreign Aid?

Developing countries need foreign aid mainly to fund their-

- Infrastructure roads, classrooms, basic sanitation etc.
- Humanitarian issues and natural disaster emergenciesbuilding emergency shelters providing counselling services etc
- National security- recipient countries can combat terrorism
 with the help of foreign aid as it decreases poverty, weak
 institutions and corruption and can help strengthen good
 governance, transparency and the economy.
- However, questions have been raised whether the aid really reaches the poor of the world.

Why it does not reach the poor?

- Foreign aid targets different goals and to be effective, some types of aid must be directed to relatively rich places who nevertheless are poor by global standards. For instance, aid to develop port facilities would go toward a coastal city, even if that city was already relatively prosperous.
- **Economic reasons:** It costs more to move supplies and equipment to a remote area, hence funds are often utilized in the vicinity of developed regions rather than in remote and impoverished regions.
- There have been instances where the aid was used to support despotic regimes. For example, in Zaire, Rwanda, Ethiopia, etc. where the donor seeks political favors in return or because it serves the purpose of the donor nation.
- In many cases aid is also given to **support the strategic allies**, the commercial interests or political beliefs, rather than the interests of the local people.
- Most recipient countries lack the right mechanisms to use aid effectively and efficiently to improve their economic conditions.
- **Corrupt governments** receiving a large portion of their budget revenue from foreign aid often do not work to promote economic growth and the well-being of their people.

Conclusion

The aid in itself is not a growth promoter. It needs to be supported by taking various steps like-

- The governments of the aid recipient countries need to be **held accountable** for the use of aid. The political will of the recipient government to reform their institutional structures and policies is a necessary condition for aid to be effective.
- The donor countries may adopt conditional aid policies or recipient countries may be punished if they fail
 to perform actions they have agreed with on the aid contracts, like cutting down the overall amount of aid
 which would push the governments to act.

• Donors can **bypass a bad government** in a recipient country by giving aid in terms of grants directly to development projects.

2.2. INDIA-ASEAN

Why in News?

Recently a summit was held to mark the 25th anniversary of Association of Southeast Asian Nations (ASEAN)-India Dialogue Relations and **Delhi Declaration** was signed.

Highlights of the Declaration

- On terrorism- Both sides, for the first time, explicitly mentioned cross-border terrorism with commitment of close cooperation in areas like terror financing, people smuggling, trafficking in persons etc.
- On Regional Comprehensive Economic Partnership- They agreed to target a swift conclusion to the comprehensive and mutually beneficial Regional Comprehensive Economic Partnership (RCEP) in 2018.
- Economic assistance- Both sides will work to "further strengthen ASEAN-India economic relations through the full utilisation and effective implementation of the ASEAN-India Free Trade Area.
 - Promotion of stable and sustainable growth for Micro, Small and Medium Enterprises (MSMEs) was also agreed upon.
- Physical and digital connectivity- They reaffirmed their commitment to enhance physical and digital connectivity in line with the Master Plan on ASEAN Connectivity 2025 and the ASEAN ICT Master plan (AIMS 2020).
- Cooperation in Maritime Transportation and encourage potential private sector participation in the development of seaports, maritime logistics network and maritime services.

RCEP

- It is a proposed free trade agreement between the members of the AEAN and the six states with which ASEAN has existing free trade agreements (Australia, People's Republic of China, India, Japan, Republic of Korea, and New Zealand).
- The negotiations were launched in November 2012 at the ASEAN Summit in Cambodia.

Master Plan on ASEAN Connectivity 2025

- It was adopted during Vientiane Declaration in 2016 with a vision to achieve a seamlessly and comprehensively connected ASEAN that will promote competitiveness, inclusiveness, and a greater sense of Community.
- It will focus on five strategic areas to achieve this vision-
 - Sustainable Infrastructure
 - Digital Innovation
 - Seamless logistics
 - Regulatory excellence
 - People Mobility

ASEAN ICT Masterplan

- Launched in 2015, it has a vision to propel ASEAN towards a digitally-enabled economy that is secure, sustainable, and transformative; and to enable an innovative, inclusive and integrated ASEAN Community.
- The 4th International Dharma-Dhamma Conference was recently held at Rajgir in Nalanda district, Bihar as a part of the commemorative events to mark ASEAN-India 25 years of dialogue partnership.
- The theme of the conference was "State and Social Order in Dharma-Dhamma Traditions"
- It has been organised by Nalanda University, in collaboration with the Centre for Study of Religion and Society, India Foundation, Ministry of External Affairs and the Vietnam Buddhist University.
- **Cooperation in aviation** under the ASEAN-India Aviation Cooperation Framework through cooperation on technical, economic and regulatory matters between ASEAN and India.
- Preserving Marine resources through their conservation and sustainable use in the Indian and Pacific
 Oceans and address threats to these resources including illegal, unreported and unregulated fishing, loss of
 coastal ecosystems, etc.
- Cooperation in outer space through ASEAN-India Space Cooperation Programme.

Issues between India & ASEAN

- There is an **imbalance between many ASEAN nations and India** because many of them are industrialised with manufacturing bases primed for exports, while India's export sector remains weak and the government's focus has shifted to boosting manufacturing domestically.
- While the ASEAN member states have been disappointed that India does not take a proactive role in the region, India's expectations regarding a more robust support for its regional outreach too have not been met.

- India continues to privilege bilateral partnership rather than pursuing ASEAN as a multilateral forum.
- India's capacity to provide development assistance, market access and security guarantees remains limited and ASEAN's inclination to harness India for regional stability remains circumscribed by its sensitivities to other powers specially China.

What India needs to do for better engagement in the region?

- **Service & Manufacturing** can be worked upon to balance trade and investment relationship by drawing on each other's inherent strength
 - o ASEAN nations like Vietnam are well-integrated with global value chains which India can use to give its own manufacturing sector a boost.
 - o India can facilitate greater Indian service sector exports to ASEAN as well as supporting freer movement of people.
- **Digital technologies** Given the reluctance of ASEAN states to take help from Chinese giants in the field (due to concerns regarding china's ability to own data), Indian IT sector may take some advantage.
- Effective delivery of projects- India needs to focus on more effective delivery of projects it is already committed to. Example India-Myanmar-Thailand Trilateral Highway (The plan is to extend this highway to Cambodia, Laos and Vietnam in an attempt to project India's role in the emerging transportation architecture.)
- Improving Connectivity- With China having three times more commercial flights than India to Southeast Asia, improving air connectivity between India and ASEAN countries should also be high on the agenda. Besides, the Bay of Bengal can be used as an exploratory ground for the development of an India-ASEAN maritime framework.
- **Strengthening cultural connect**-Tourism too can be further encouraged between India and the ASEAN with some creative branding by the two sides.

2.3. INDIA GETS ENTRY INTO AUSTRALIA GROUP

Why in news?

India has been admitted as 43rd member to Australia group.

What is Australia Group (AG)?

- It was formed in 1985 in response to use of chemical weapons by Iraq in Iran-Iraq war of 1984.
- It is a **Multilateral Export control Regime** and an informal forum of 43 countries (Including EU) which, through the harmonisation of export controls, seeks to ensure that **exports do not contribute to the development of chemical or biological weapons**.
- Coordination of national export control measures also assists member countries to fulfil their obligations under the **Chemical Weapons Convention** and the **Biological and Toxin Weapons Convention**.
- It issues **Australia group Common Control Lists** related to chemical weapon precursors, Dual- Use chemical and biological related technologies, Human and Animal pathogens etc.

Chemical Weapons Convention (CWC)

- It is a multilateral treaty that bans chemical weapons and requires their destruction within a specified period of time.
- It was adopted in 1992 by UN Conference on Disarmament and came into force in 1997
- It is implemented by the Organization for the Prohibition of Chemical Weapons (OPCW) headquartered in Hague.
- India is a signatory to CWC since 1993 and destroyed its stockpile of Chemical weapons by 2009 becoming third country (after South Korea and Albania) in the world to do so.
- Egypt, North Korea, Palestine and Sudan are the only countries that have not signed to the convention.
- CWC prohibits:
 - o Developing, producing, acquiring, stockpiling, or retaining chemical weapons.
 - The direct or indirect transfer of chemical weapons.
 - Chemical weapons use or military preparation for use.
 - Assisting, encouraging, or inducing other states to engage in CWC-prohibited activity.
 - o The use of riot control agents "as a method of warfare."

Biological and Toxin Weapons Convention (BTWC or BWC)

• It is a **legally binding treaty** that outlaws biological arms.

- It was adopted by UN in 1972 and came into force in 1975.
- It hans
 - The development, stockpiling, acquisition, retention, and production of
 - ✓ Biological agents and toxins "of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;"
 - ✓ Weapons, equipment, and delivery vehicles "designed to use such agents or toxins for hostile purposes or in armed conflict."
 - The transfer of or assistance with acquiring the agents, toxins, weapons, equipment, and delivery vehicles described above.
- India signed the convention in 1973 and ratified it in 1974.

Implication for India

- Improves India's position- With entry into Australia group India has become a member of 3 out of 4
 Multilateral Export Control Regimes (the Missile Technology Control Regime and the Wassenaar
 Arrangement) which will strengthen India's position vis a vis China (which is member of Nuclear Suppliers
 Group only).
- **Boost to membership of other groups-** India's entry into Australia Group will give it the necessary leverage to get admission into the Nuclear Suppliers Group UN Security Council.
- **Improving supply chain security** It will help in strengthening supply chain security in the dynamic industry fields of biotechnology and chemicals.
- India's Credibility- it is an international acceptance for the fact that our export controls and safeguards for biological and chemical agents, equipment's and technologies meet the benchmarks established by the international community.

2.4. INDIA ISRAEL

Why in News?

Israel's Prime Minister Benjamin Netanyahu recently visited India.

Background

- Both countries gained their independence from the UK within months of each other, but they headed in different directions for nearly four decades - India as a leader in the NAM maintained close relations to the Arab world and the Soviet Union; Israel established close ties with the US and Western Europe.
- Although India publicly kept a distance from Israel until the late 1980's, there was in fact a great deal of bilateral activities between the two countries in the preceding years.
- Since the upgradation of relations in 1992, defence and agriculture have been the main pillars of bilateral engagement.
- The two countries recently completed 25 years of diplomatic ties and this is only the second visit by an Israeli prime minister after a gap of 15 years since Ariel Sharon in 2003.

INDIA-ISRAEL AGREEMENTS



To develop and promote cooperation in HRD through training programmes, skill development & simulator-based hands-on training

COOPERATION

Envisages collaboration in cyber security resilience, promoting B2B cooperation and facilitating industrial summits

ENERGY COOPERATION

To explore long-term cooperative relationship and joint economic projects to enhance engagements in oil & gas, including collaboration in upstream sector activities & R&E To promote institutional linkages between universities and start-ups

AIR TRANSPORT AGREEMENT

Envisages cooperative marketing arrangements, such as code share, bloc space or any other JV agreement for operating the agreed services on specified routes

FILM CO-PRODUCTION

Envisages a framework for encouraging all audio-Visual medial output, especially co-production of movies To contribute to economic growth of film, TV, video and new media production

MEDICINE MoU

Mou between the Central Council for Research in Homeopathy, Ministry of AYUSH & the Centre for Integrative Complementary Medicine, Israel

SPACE SCIENCE MoU

MoU between Indian Institute of Space Science and Technology and the Technion-Israel Institute of Technology

INVEST INDIA AND INVEST IN ISRAEL DEAL

Will support and develop coop through exchange of info on investment opportunities, laws and regulations, policies and govt initiatives

India-Israel Relations

• **Economic and Commercial Relations**- Bilateral trade between the two countries has increased from \$200 million to more than \$4 billion (excluding defence) in last 25 years making India Israel's 10th largest trading partner.

- Major exports from India to Israel include precious stones and metals, chemical products, textiles and textile articles, plants and vegetable products, and mineral products.
- Major imports by India from Israel include precious stones and metals, chemicals (mainly potash) and mineral products, base metals and machinery and transport equipment.
- Agriculture- Both have a bilateral agreement for cooperation in agriculture (India-Israel Agriculture Project).
 - o **Bilateral action plan (2015-18**) aims to expand cooperation into new sectors such as dairy and water.
 - India has benefited from Israeli expertise and technologies in horticulture mechanization, protected cultivation, orchard and canopy management, nursery management, micro-irrigation and post-harvest management particularly in Haryana and Maharashtra.
 - o Israeli drip irrigation technologies and products are now widely used in India.

Defence & Security-

- o Israel is the third largest supplier of arms to India after Russia and the U.S
- o India imports critical defence technologies from Israel. There are regular exchanges between the armed forces and defence personnel.
- Science & Technology- There are various MoUs between the two in various fields of Science and Tech (eg, space technology).
 - o In January 2014, India and Israel held extensive discussions to establish an **India-Israel Cooperation Fund** aimed at promoting innovations through joint scientific and technological collaborations.

Grounds of Cooperation

- Israel's flexible export policy meets
 Indian demands for technological
 transfer that have recently been an
 important part of governments
 overall developmental agenda.
- Israel's technological prowess remains unmatched in areas as diverse as waste management and reprocessing, desalination, agriculture, waste water recycling, health, biotechnology, and nanotechnology.
- With Russian economy and its
 defence industry in shambles and US and Europe's scepticism to supply India with defence weapons (given
 India's refusal to sign NPT), Israel has gained importance since both are nuclear powers who have not signed
 the NPT.
- India-Israel counterterrorism cooperation is quite robust and has been scaled up gradually over the last few years through a joint working group on terrorism. Intelligence-sharing in this realm has been the most important element of this partnership.
- India could also benefit from Israel's close relationship with US.
- Tourism is also a growing aspect of bilateral relationship. Every year 30-35 thousand Israelis visit India for tourism business and other purposes and about 40,000 Indians visit Israel every year mostly for pilgrimage.

Differences

- **Difference in terms of Iran** Where on one hand Israel considers Iran an existential threat, India, on the other, has a historical relationship, and finds the cooperation useful for energy supplies, and an alternative route through Chabahar port to Afghanistan and Central Asia.
- **Different approach towards Arab world** While Israel has inherent differences with Arab countries, India has significant stakes there and India's recent vote at the UN against America's move on Jerusalem was a reflection of that underlying reality.
- **Stand on China** China is Israel's largest trading partner in Asia, there are strong technology and investment linkages.

De-hyphenation of relation-

De-hyphenation means delink two entities and consider them as individuals.

- Now India's relationship with Israel would stand on its own merits, independent and separate from India's relationship with the Palestinians.
- This has bolstered the scope for addressing **India's national interests** effectively and diversified **access to new markets** and technologies.
- The hyphenation was a compulsion during the Cold War era, but it continued to underpin India's approach even in the subsequent period, probably out of the fear of antagonising the Arab.
- However, due to disturbances among the Arab states they were left incapable of pursuing a strong foreign policy that made it easier for India to pursue its relation with Israel.

- In terms of Pakistan, Israel's interest lies in keeping open the possibility of relations, while there are serious tensions among India and Pakistan.
- **Differences in terms of technology transfer-** There exist differences between India and Israel over issues related to technology transfer, end-user agreements and a proposed free trade agreement, more so given India's policy of 'Make in India'.
- The **free trade agreement (FTA)** is stuck because of the concerns from the Indian domestic industry.

Conclusion

- Indo-Israeli bilateral ties will increasingly be shaped by the rapidly evolving geopolitical realities in Asia and the Middle East. Israel will have to figure out its own response to this Asian flux.
- Further though the breadth and depth of India-Israel ties is no match as of now for the Sino-Israeli one, which is largely driven by trade and commerce, New Delhi should be aware that Chinese influence will only grow in the coming years. Prioritizing economic and trade ties in India-Israel ties should be viewed as a priority.

2.5. INDIA-MYANMAR

Why in news?

The government has approved the agreement between India and Myanmar on Land Border Crossing.

India- Myanmar Relations

- Bilateral Cooperation in Regional/ Sub-regional context: Myanmar's membership of ASEAN, BIMSTEC and Mekong Ganga Cooperation has introduced a regional/sub-regional dimension to bilateral relations and imparted an additional significance in the context of our
 - "Act East" policy.
 - While Myanmar has been supportive of India's stand to various international organizations India has also supported Myanmar's association with SAARC as an observer.
- Commercial Cooperation- India is the fifth largest trading partner of Myanmar.
 - India is presently the tenth largest investor with major investments in oil & gas sector.
- Development Cooperation: India has provided grant in aid assistance including support for the Kaladan Multimodal Transit Transport Project; the Trilateral Highway Project; the Rhi-Tiddim road; supply of Bailey bridges, etc.

Significance of Myanmar for India

- Myanmar is expected to act as the bridge between India and ASEAN, has risen in much significance in the context of India's Act East Policy, and good neighbourhood policy.
- Better relations with Myanmar have become crucial for India with China gradually gaining confidence of countries in the region.
- India's completion of the projects with Myanmar (as mentioned above) would also prove India to be a responsible regional player, thus improving its reliability.
- In terms of security and strategic partnership, several deep sea ports of Myanmar, including Yangon and Dawei, can be crucial for India like Chabahar port in the west.
- **Defence & Security Cooperation** Various MoUs on Border Cooperation, training, Army, Air Force and Naval Staff Talks have been signed.
- **Disaster Relief**: India has responded promptly and effectively to assist Myanmar in humanitarian relief operations following natural calamities along with financial assistance for relief and reconstruction work.

Significance of the Agreement

Geographically India's four states share border with Myanmar (viz. Arunachal Pradesh, Nagaland, Manipur and Mizoram) which makes the agreement important for both the nation in following respects-

- It will **facilitate regulation and harmonization** of already existing free movement rights for people ordinarily residing in the border areas of both countries increasing connectivity and interaction among the people.
- It will also **facilitate movement of people on the basis of valid passports** and visas which will enhance economic and social interaction between the two countries.
- It would allow India to leverage its geographical connections with Myanmar to **boost trade and economy of the North-East.**

The Agreement will safeguard the traditional rights of the largely tribal communities residing along the border which are accustomed to free movement across the land border.

2.6. POLAR SILK ROAD

Why in News?

Recently, China has released its first official Arctic policy white paper, outlining its ambition for a Polar Silk Road.

Important aspects of the Policy

- Development of Arctic shipping routes which are likely to become important transport routes for international trade. It is referred to as "Polar Silk Road".
 - It is being termed as an expansion of "Belt and Road Initiative" (a trade and infrastructure strategy spanning Asia, Africa, Europe and now Latin America).
- China aims to participate in the exploration for and exploitation of oil, gas, mineral and other non-living resources in the Arctic as the region has an abundance of geothermal, wind, and other clean energy resources.
- China will start to utilize fisheries and other living resources and participate in conservation as the Arctic has the potential to become a new fishing ground in the future.
- China will support and encourage "its enterprises to cooperate with Arctic States in developing tourism in the region which is described as an "emerging Industry".

Concern

China is not a member of Arctic Council that governs the matters of the region. China's increasing prominence in the region has prompted concerns from Arctic states over its long-term

Arctic Council

- Established in 1966, as an intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States.
- The Arctic Council is a high-level intergovernmental forum which addresses issues faced by the Arctic governments and people living in the Arctic region.
- Member: Canada, the Kingdom of Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States.

strategic objectives, including possible military deployment.

2.7. IRANIAN PROTESTS

Why in news?

Recently there have been massive protests in Iranians across several cities.

Causes of the protests

Economic

Iran's economy has not been able to diversify its economy (which is heavily dependent on oil exports) and promote entrepreneurship causing consistent rise of unemployment, inflation and decline in per capita income.

Political

- Iran has a complex structure of government and only few parts of it, like the legislature and the presidency, are elected. Fundamental authority rests with Supreme Leader Khamenei, an unelected cleric.
- Basic rights to free expression and protest are tightly controlled, and candidates who are seen as too subversive are barred from running for public office. Moreover there is political non-transparency and numerous cases of corruption.
- People specially youths look up for modern life style, more freedom and opportunities in place of conservative Islamic rule.
- There is a palpable disenchantment with Iran's heavy military expenditure in Syria and Yemen while Iran itself facing economic crisis at home.

India and Iran

Iran holds a key position in India's foreign policy for various reasons:

- **Geopolitical:** access to Afghanistan and other central Asian countries, securing sea lane of communication, fighting terrorism, maintaining balance in the Middle East between Shia-Sunni and Arab-Israel conflicts.
- **Economic**: Iran is the third largest exporter of energy to India, India is pursuing ambitious Iran-Pakistan-India (IPI) gas- pipeline and investment in Frazad-b gas field, India is also developing Chahabahar port of Iran which has major economic and geopolitical significance.
- **Cultural**: India and Iran has historical cultural ties. India has second largest Shia population which could be leveraged to strengthen better people to people contacts.

2.8. US SPECIAL WATCH LIST

Why in news?

- US recently has placed Pakistan on a 'Special Watch List' while also withholding USD 1.15 billion military aid.
- US also announced re-designation of 10 countries as 'Countries of Particular Concern' (CPC).

Implications for India

- Vindication of India's stand that Pakistan harbours terrorism on its soil. It would give India a leverage to isolate Pakistan on international forums for using terrorism as a tool for nonconventional warfare.
- The vacuum created by US could be readily occupied by China. This is a cause of concern as China has already started investing heavily in projects like Gwadar Port development and China Pakistan Economic Corridor (CPEC) that passes through POK region.

About Special watch list.

It is for countries that engage in or tolerate severe violations of religious freedom but may not rise to the level of the 'Countries of Particular Concern' (CPC).

About CPC:

- A country is labeled as a CPC after it engages in or tolerats systemic, ongoing, and egregious violations of religious liberty. It is in accordance with the International Religious Freedom Act of 1998.
- The list includes Burma, China, Eritrea, Iran, North Korea, Sudan, Saudi Arabia, Tajikistan, Turkmenistan, and Uzbekistan.
- However, India should not over calculate the positive implications of this withhold of military assistance to
 Pakistan by US as it is not cancellation but done temporarily to incentivise Pakistan to take action against
 terrorism. Also is only concerned about the terrorism taking place in the western border of Pakistan. Its
 position is still unclear on the anti-India groups like Lashkar-e Tayyiba and Jaish-e Mohammed that Pakistan
 operate in the eastern border.

2.9. NATIONAL KNOWLEDGE NETWORK

Why in News?

India has excluded Pakistan from the list of SAARC member countries with which it will be connecting its National Knowledge Network (NKN).

About NKN

- Launched in 2010 with **National Informatics Centre** (NIC) as the implementing agency.
- It aims to interconnect all institutions of higher learning and research with a high speed data communication network to facilitate knowledge sharing and collaborative research.
- NKN will **facilitate advanced distance education** in specialized fields like engineering, science, medicine etc. as well as enable an ultra-high speed e-Governance backbone.
- It will bridge the existing knowledge gap in the country and help the country evolve as a Knowledge Society and also spur economic activities in the Knowledge domain.
- It enables collaboration among researchers from international educational networks like TEIN4 and organizations such as CERN.

2.10. RAISINA DIALOGUE

Why in news?

Recently, Israel's Prime Minister, Benjamin Netanyahu, inaugurated the **third edition of the Raisina Dialogue in New Delhi.**

About Raisina Dialogue

- It is a multilateral conference committed to addressing the most challenging issues facing the global community, held annually in New Delhi since 2016. It has emerged as India's flagship conference on geopolitics and geo-economics.
- Being a multilateral conference, it brings together global leaders in policy, business, media, civil society, defense and foreign policy.
- The conference is hosted by the **Observer Research Foundation**, an independent think tank, in collaboration with the **Ministry of External Affairs of India**.
- This year's theme is Managing Disruptive Transitions: Ideas, Institutions and Idioms.



3. ECONOMY

3.1. BANKING REFORMS ROADMAP

Why in news?

- The Government of India has unveiled details of the bank recapitalisation plan for Public Sector Banks (PSBs) announced earlier in October, 2017.
- It has been accompanied by an overarching framework for the reforms agenda - "Responsive and Responsible PSBs" to ensure that this capital is effectively utilized towards faster economic growth

Banking Reforms Roadmap

The reform agenda, aimed at **EASE** – Enhanced Access and Service Excellence, is based on six themes. Capital infusion is dependent on PSB performance on these reform themes

Theme 1: Customer Responsiveness

- EASE for customer comfort through promotion of digital banking and progressively making brick-andmortar branch visits redundant, simplification of forms, providing one-stop access of financial services to customers including banking-plus services (insurance & investment), pleasing ambience with courteous staff and basic customer amenities.
- EASE in Grievance redressal through enabling realtime complaint status tracking by complainant with feedback from them to check the quality of redressal and analyzing & taking effective action on common grievances to avoid recurrence.
- **EASE for Senior citizens and differently abled** through doorstep banking, dedicated counters or giving preference in service, digitization and proactive services to minimize the visits required.
- Annual EASE ranking index on customer EASE to measure bank's customer responsiveness and performance on all EASE items

Theme 2: Responsible Banking

- Clean lending and prudent asset management through creation of Stressed Asset Management Vertical (SAMV) for focused recovery efforts of identified Stressed Assets, tie-up with agencies for specialized monitoring (ASMs) for clean & effective post-sanction follow-up, Institute efficient practices for effective coordination in large consortium loans, strict segregation of pre- and post-sanction roles & responsibilities, differentiated banking strategy etc.
- Furthering financial stability by checking aggressive and imprudent lending through proactive, dynamic and systemic risk management, monetizing realizable value from sale of non-core assets and rationalizing overseas operations
- Improving governance for ensuring outcomes It involves following a board-approved strategic vision & business focus plan, evaluation of performance of Bank's Whole Time Directors by boards and strengthening & empowerment of boards.

Theme 3: Credit Off-take

• EASE for the borrower & pro-active delivery of credit- through online application facility for loans, digitalizing non-retail credit appraisal process, development of differentiated products and services for industry-based market segments.

Recapitalisation of Public Sector Banks

In October 2017, the government committed to infuse capital in PSBs to the tune of Rs. 2 Lakh 11 thousand crores. Keeping its commitment intact, the government decided to infuse capital of around Rs 1 lakh crore via three modes:

- Gross Budgetary Support (GBS): Rs 8,139 crore
- Recap Bonds: Rs 80,000 crore
- Market Raising: Rs 10,312 crore

The government divided banks into two catergories viz Non PCA banks and PCA banks to infuse capital.

'Prompt corrective action' (PCA) framework:

PCA framework is a supervisory tool, which involves monitoring of certain performance indicators of the banks as an early warning exercise.

Its objective is to facilitate the banks to take corrective measures including those prescribed by the Reserve Bank, in a timely manner, in order to restore their financial health.

The framework also provides an opportunity to the Reserve Bank to pay focussed attention on such banks by engaging with the management more closely in those areas.

Theme 4: PSBs as UdyamiMitra

- EASE of bill realization for MSMEs by registration of all banks on TReDS platform for faster bill discounting
- EASE of financing for MSMEs through steps such as board-approved policy for enhanced working capital to GST-registered MSMEs, enabling MSME financing through cluster-based financing & FinTech, time-bound and automated processing of MSME loan proposals
- Single-point MSME Relationship Officers for top-20 MSME accounts in every MSME-Specialised Branch
- Revival Framework for stressed MSMEs after identifying all SMA-1/2 MSME accounts.

Theme 5: Deepening Financial Inclusion & Digitalisation: micro-insurance, digitalisation

- **EASE through near-home banking** by establishing banking outlets within 5 Kms of every village, providing services through Bank Mitras for branchless banking and mobile ATM in every under-served district
- **Social security through micro-insurance** through massive expansion of coverage under PM Suraksha Bima Yojana and PM Jeevan Jyoti Bima Yojana
- EASE through digital payments by issuing RuPay debit card to all Pradhan Mantri Jan Dhan Yojana Accountholders, Aadhaar seeding all operative current & savings account, massively expanding Aadhaarenabled payment Points of Sale
- Customer protection against cyber-frauds by taking steps such as ensuring refund against unauthorised debit in electronic transaction within 10 working days of notification by customer, real-time alerts for customer protection, free customer-level security updates for apps & Internet-based utilities

Theme 6: Ensuring outcomes: Governance/HR

 Developing personnel for Brand PSB by rewarding select top-performers identified through a Performance Management System (PMS), specialisation through job families, making mandatory annual role-based elearning programme for all officers.

3.2. AGRICULTURAL NPAS SPIKE

Why in news?

According to RBI data, agriculture NPAs rose over
 23 per cent from Rs 48,800 crore in 2016 to Rs
 60,200 crore in 2017.

Important Stats

- Farm sector bad loans constitute 8.3 per cent of the total banking sector NPAs of March 2017.
 However, it is fairly less than compared to nonpriority sector with accounts for 76.7% of total NPAs
- Compared to non-priority sector credit where borrowers have defaulted 20.83 percent of the credit, farmers have defaulted only 6 percent of their total credit.

Reasons for growing NPAs in Agriculture Sector

 Dependence of Monsoon – Farm outputs were heavily affected by successive droughts of 2014 and 2015. Although it was followed by a normal monsoon in 2016, however 2017 again witnessed uneven monsoon. This has led to harvest losses. Farm credit, which forms part of priority sector lending, includes short-term crop loans and medium-term or long-term credit to farmers.

Short-term crop loans are basically borrowings by farmers for six months or a maximum one year to help them raise money before and after harvest.

Calculation of Agricultural NPAs

In general, principal or interest due for over 90 days is considered NPA. However, this is not applicable for agricultural loans.

A loan granted for short duration will be treated as NPA if the installment of principal or interest thereon remains overdue for two crop seasons. For longer duration crops, it is one crop season. Long duration crops here are those that have crop seasons longer than one year.

Is Farm Loan Waiver a Viable Option to Solve Agricultural NPAs?

Economists regard farm loan waiver as bad economics and a populist measure. It was first used in India in 1990s and was recently brought back in the forefront after the drought in 2009-10.

- Farm loan waivers have an adverse impact on the balance sheet of the lending institutions as well as on the finances of the states.
- It impacts credit discipline and dis-incentivises future borrowers to repay thereby creating the problem of moral hazard.
- It can also affect the flow of credit as bank lending tends to move away from areas with greater exposure to such schemes.
- Government borrowings go up and yields on government bonds are impacted which can in turn lead to crowding out of private borrowers as higher government borrowing increases the cost of borrowing for others.

- Increasing Rural Distress Recent government data shows that there has been a decline in rural wages, fluctuation in prices and decline in crop sowing. Average all-India annual rural wage growth declined from 6.8 to 4.9 per cent between July and October and the decline is sharper for agricultural than for non-agricultural occupations.
- **Decreasing Landholding** Decreasing landholding has led to successive losses and farmers are unable to reap the benefits of economies of scale.
- Implications of Farm Loan Waiver Expectations of loan waiver prompt farmers to default on loans. Moreover, it has a domino effect such that farmers from different states demand loan waivers.
- Using Loan Amount for Non-farming Purposes Farmers take loans through channels like Kisan Credit Card and using it for other non-farm activity including consumption.
- **Depressed global prices for farm commodities** This has rendered agri-exports from the country relatively uncompetitive, while also exposing farmers to the threat of increased imports.

Way Forward

- Expand the scope of irrigation to increase crop intensity, improve access to irrigation, enhance the seed replacement rate and encourage the balanced use of fertilizers.
- Adopting precision farming and related new technologies that allow highly efficient farming and conserve resources. Schemes like Rashtriya Krishi Vikas Yojana can contribute to such initiatives.
- Better leasing laws to solve the problem of informal tenancies.

Some steps taken by govt to resolve rural distress

- Construction of 51 lakh pucca houses in 2017-18 under PMAY-G. It also helps neutralize agrarian discontent.
- Additional monetary support to beneficiaries for building toilets through the Swachh Bharat Mission-Gramin scheme and 90 days of wages under MGNREGA.
- Convergence is being sought with the Pradhan Mantri "Ujjwala" and "Saubhagya" schemes with free LPG and electricity connections specifically directed at PMAY-G beneficiaries.
- Encouraging farm related activities and non-farming activities to address the problem of rural distress and agrarian price glut.
- Establishing an Agriculture Risk fund to provide relief in natural calamities as was recommended by the M. S Swaminathan Committee.
- Better assessment of risk on part of banks to minimize defaulting of loans.

3.3. REPORT OF THE COMMITTEE ON DOUBLING FARMERS' INCOME

Why in news?

Recently Ashok Dalwai committee, on doubling farmers' incomes (DFI), has proposed major reforms in its report titled *Structural Reforms and Governance Framework*.

Major recommendations in the report

- Improve Institutional Arrangement/Overhaul of the Union agriculture ministry: through steps such as
 - o *reorganizing some of the divisions* of ministry to bring into focus new aspects like agri-logistics, investments for capital formation, primary processing etc.
 - o setting up a *three-tier planning and review mechanism* through district, state and national level committees
 - o establishing a *national level policy and planning committee* to review the policy framework and progress in doubling farmer's incomes, review trade policy, budgetary allocations and status of farmers' welfare
- Liberalize the definition of a 'farmer' to include cultivators, lessee farmers and sharecroppers and developing an online and annually authenticated database to identify a farmer and render him/her eligible to avail benefits of agriculture related support-system of government.
- **Undertake land reforms** such as incentivizing land pooling through legislating the Model Land Leasing Act 2016, draft a Model Contract Farming Act, encouraging Farmer producer organisations and comprehensive digitisation of land records.
- Reduce production risks and market unpredictability: through restructuring of Directorate of Marketing &
 Inspection to take onus for market intelligence and undertake price and demand forecasting, comprehensive
 drought-proofing of highly vulnerable districts, improving post-harvest management capacity of farmers,
 deployment of technologies to improve estimates and resource use efficiency.

- Improve trade regime through adjusting imports according to pre-set triggers to correct price fluctuations, promoting exports to allow agricultural growth and steady access to international demand
- Liberalize and simplify agriculture policies such as ensuring greater choice of inputs to farmers at right
 quality and rational costs, liberalizing seed chain, revisiting fertilizer sector policies, rationalizing pesticide
 regulations, liberalising output market environment to invite private sector participants and modernizing
 agricultural market architecture and legislate the Model Agricultural Produce and Livestock Marketing Act
 2017
- Remove Infrastructure constraints by setting up a dedicated division for investment and enterprises in the Ministry of Agriculture & Farmers' Welfare.
- Tackle climate change: through rigorous monitoring, deploying technologies to mitigate adverse impact, preparing farmers for possible shifts in practices and habits, bringing changes in cropping system, crop selection and livestock care.
- **Improve grassroot level participation** by making Gram Panchayats responsible for agricultural development and preparing village level action plans at Gram Panchayat level.
- **Improve support tools** to help measure the farm income, monitor performance in real time and forecast demand and price for an array of agri-commodities. It may be used to conduct an annual ease of doing agribusiness survey.

3.4. PRICE DEFICIENCY PAYMENT (PDP) SCHEME

Why in news?

Various state governments have launched Price deficiency payment (PDP) schemes to cover farmers' losses.

About Price deficiency payment (PDP) scheme

- Under this, government support to producers does not involve direct market intervention. The market is, instead, allowed to set prices based on normal supply and demand forces while the government simply pays the difference between the MSP and the market-determined price.
- NITI Aayog in its three-year agenda has also suggested this system to address the gaps in Minimum Support Price (MSP) based procurement of crops.

Benefits

- The scheme provides an alternative to physical procurement of commodities at minimum support prices (MSPs).
- This scheme may be more effecting in ensuring that cropping pattern is not skewed in the favor of crops with assured procurement under MSP & it responds to consumer needs.
- Farmers receive the difference between average sale price (ASP) and MSP directly into their bank accounts thereby doing away with the costs of handling and storage. Thus, it may help in keeping India's food subsidies bill under check & complying with WTO subsidy restriction.

Various PDP schemes of states

- Bhavantar Bhugtan Yojana (BBY) by MP: It applies to eight kharif crops — soybean, til, maize, urad, tur, moong, groundnut, ramtil
- The Haryana government has announced a somewhat similar scheme for 4 vegetables
 potatoes, onions, tomatoes, cauliflower.
- **Karnataka** is giving a Rs 5-per-litre incentive to milk farmers over and above the rate that dairies are paying.

Telangana's input support scheme (ISS)

- **Objective:** To relieve farmers from taking loans from moneylenders by giving them Rs 4,000 per acre for the kharif and rabi seasons. It is envisaged that the farmer will use this money for purchase of inputs ranging from seeds to fertilisers to machinery and hired labour.
- It does not require the farmer to register his cultivated area and crops.
- The farmer is free to grow a crop of his choice and sell it anytime in a mandi of his choice. This model is crop-neutral, more equitable, more transparent, and gives farmers the freedom to choose.
- Incidentally, China has a similar scheme: It gives aggregate input subsidy support on a per acre basis. The scheme does not distort markets and is worth following.

Problems

• **Non-applicability to non-registered farmers** – For e.g. – in MP, the farmers who are not registered on the portal have been selling their produce at huge losses without any compensation.

- Less compensation As the prices are fixed by the government, the compensation does not even cover the full cost of production at times. Eg: Haryana
- Less coverage Although there is potential of covering all the production, yet the actual percentage of production which benefitted from this scheme was low. For e.g. only 32% of Urad and 18% of Soyabeen production in MP was covered.
- **Involves too much micromanagement** by government officials in terms of calculating the produce, average sale price in the state for that crop etc.

3.5. CAG REPORT ON FSSAI

Why in news?

Recently CAG released a performance audit report of FSSAI.

Highlights of the report

- No proper guideline: Ministry of Health and Family Welfare and the FSSAI are yet to frame regulations governing various procedures, guidelines and mechanisms as prescribed in the Food Act.
- Monitoring lapses: It has also failed to monitor and cancel licenses issued under the product approval system declared unlawful by the Supreme Court in 2015, due to which market is still flooded with unsafe food.
- Arbitrary functioning: FSSAI issued licences to food

Food Safety and Standards Act, 2006 was enacted to:

- Consolidate multiple laws in the country relating to food safety.
- Establish a single point reference system.
- Establish the **Food Safety and Standards Authority of India (FSSAI)** which formulates standards for food and regulates their manufacture, storage, and distribution, among others.
- Ministry of Health & Family Welfare (MoHFW) is the administrative Ministry for the implementation of FSSAI.
- The FSSAI along with the State Food Safety Authorities is responsible for monitoring and verifying the relevant requirements under the Act and its enforcement.
- The Act provides for the appointment of a Commissioner of Food Safety at state level and local Food Safety Officers for efficient implementation of food safety.
- It requires food firms to provide scientific evidence that their product is safe
- The Act does not apply to any farmer, fisherman, farming operations, crops, livestock, aquaculture, supplies used/produced in farming, products of crops produced by a farmer/fisherman at initial production level.
- business operators without complete documents. It also does not have any documented policies and procedures for risk based inspections which allowed the sale of more than 800 processed foods with new formulations without assessing their safety.
- Lack of data: FSSAI does not have a database on food businesses in the country as FSSAI and state food safety authorities did not conduct any surveys for enforcement and administration of the Act.
- **Human resource shortage**: There is an acute shortage of licensing and enforcement officers in the states which severely affected food safety measures. It also noted that **contractual employees** were performing routine functions, defeating the intention of appointing contractual employees only for specific tasks of defined duration.
- **Poor Testing Labs**: Quality of testing by the laboratories cannot be assured due to lack of quality equipment, lack of trained human resource as **65 out of the 72 state food laboratories** to which FSSAI and state food
 - safety authorities sent food samples for testing do not possess National Accreditation Board for Testing and Calibration Laboratories (NABL) accreditation.
- It has failed to adhere to regulations in case of renewal of the license and failed to collect significant amount of penalties imposed for non-adherence.

About NABL

- It is a Constituent Board of Quality Council of India.
- Objective: Providing Government, Industry Associations and Industry in general with a scheme of Conformity Assessment Body's accreditation which involves thirdparty assessment of the technical competence of testing including medical and calibration laboratories, proficiency testing providers and reference material producers.
- It has also failed to curb the import of unsafe foods in the country.

Way Forward

CAG recommendations on FSSAI

- ✓ It should expedite the notification of regulation on areas that have been specified in the Food Act, but are yet not covered.
- ✓ Ensure all licenses issued are reviewed and approved by the MoHFW.
- ✓ Conduct surveys of food business activity, to ensure a comprehensive and reliable database of Food Based Organisations and ensure better enforcement and administration of the Act.
- ✓ MoHFW should ensure accreditation of all state food laboratories, pertaining to equipment and functionality of the lab.
- ✓ To frame recruitment regulations to fill up vacancies.
- Adopting best practices: Reviewing the Food Safety and Standards Act, 2006 by benchmarking it with similar laws in other parts of the world.
- "One Nation, One Food Law" should be the guiding philosophy to provide an enabling regulatory environment for investment in the food sector.

3.6. ORGANIC FOOD

Why in news?

Recently, FSSAI issued regulation on organic food in country.

Provisions of the guideline

- **Definition:** FSSAI has defined
 - ✓ Organic Agriculture: A system of farm design and management to create an eco-system of agriculture production without the use of synthetic external inputs such as chemicals, fertilisers, pesticides and synthetic hormones or genetically modified organisms.
 - ✓ **Organic Farm Produce**: the produce obtained from organic agriculture.
 - ✓ Organic Food Means: Food products that have been produced in accordance with specified standards for organic production.
- Mandatory labeling of Organic food from July, 2018 which should convey full and accurate information on the organic status of the product.
- There will be penalties on non-compliance of regulation.
- Approval authority: Organic food products should carry a certification mark or a quality assurance mark given by
 - ✓ National Programme for Organic Production (NPOP)
 - ✓ Participatory Guarantee System for India (PGS-India)
 - ✓ Voluntary logo from the FSSAI that marked its produce as 'organic.'

GROW and EAT HEAL A look at the status of organic farming, which is catching up in India of cultivable land certified under National Programme for Organic Production in 2015-16 mh Certified organic products are produced in India. A Fifth of the total produce was exported ■ 5,85,200 farmers were engaged in Only 1.7% of organic farming in india's cultivated 2015, more than area is under any other country organic farming and a quarter of the world WHAT IS AN ORGANIC PRODUCT? fruits, vegetables, fibre and animals products sourced or grown in an

environment free of chemical pesticide, fertilizers, genetically -

HOW CAN YOU IDENTIFY AN ORGANIC PRODUCT?

There are special logos on packaging of foods that are used to

mh: Million hectares, mt:Million tonne

identify foods as organic. The FSSAI had recently introduced

modified organisms and induced hormones

'Jaivik Bharat' logo

Significance

- It will help in curbing fraudulence and malpractices prevalent in organic market sector where inorganic products are being sold as organic.
- Impetus to Growth: A study by Indian Council for Research on International Economic Relations (ICRIER) in 2017 found that organic food market is expected to grow at 20% in the next five years if supported with right policies providing the necessary impetus.
- **Empowering consumers** who can now check the authenticity of organic food products.
- **Empowering Farmer:** Organic certification will also help farmer to earn a premium for their produce.
- Proper guideline will help in integrating organic product with global value chain and also in deepening domestic market.
- Health benefits: Increasing consumption of organic food will keep humans away from the effect of pesticide, fertilizer and growth hormone used in the inorganic farming.

Concern

- Issue with dual certification system – There is no linkage between the two certification systems (see infographic).
- PGS also fails to have a transformational impact as consumers don't believe PGS due to its self-certification character.
- Lack of interest by big retail player in promoting organic produce as a lot of time is spent on authenticating the source of product.
- Expensive product as compared to the alternative present in market.

Way Forward

- Single Nodal Agency could be formed for streamlining of process and administrative cost.
- Integrating small and marginal growers to the market for organic produce following global standards will open up opportunities for agribusinesses.
- Develop infrastructure like cold storage, transportation etc. to

 increase the positional control

increase its availability and competitiveness.

CERTIFICATION CONFUSION

For any food to be sold as organic in India, whether fresh produce or packaged product, it must be certified via one of two systems. That road can be long, winding and often expensive.

NATIONAL PROGRAMME FOR ORGANIC PRODUCTION (NPOP)



Adopted in 2001 and administered by the Ministry of Commerce & Industry, it was originally meant for exports



Under this programme, one of 28 third-party certifiers must check that a farm is free of manufactured chemicals (fertilizers, insecticides, herbicides hormones and pesticides).



In case of processed food, the certifier checks that the produce came from an NPOP - certified farm and was processed by a NPOP - certified processor.



Certified foods carry the India Organic logo. The standards are recognized by the European Commission, America's USDA, and Switzerland.

THE CATCH

- Third-party certification is expensive and must be renewed annually.
- So the programme is restricted to big companies, ones that work with farmers over thousands of acres, and earn revenues largely from exporting non-perishables oilseeds, processed food, cereals, tea, spices and pulses.

PARTICIPATORY GUARANTEE SYSTEM FOR INDIA (PGS-INDIA)



Practised in 38 countries and recognized by the Union Ministry of Agriculture & Farmers Welfare since 2018, it certifies clusters of small farmer (two and five acres each)



Five or more growers who live close to each other form a group and get trained in organic farming under a government scheme.



Then, with help from Regional Councils (India now has 562), farmers inspect each other's holdings, Should a grower violate any norms, their produce is not sold through the group.



India now has 6,646 PGS groups, covering about 2.1 lakh farmers.

THE CATCH

- The system is poorly founded, farmers are often trained badly and the system does little to create a long-team market for organic produce.
- The PGS is not recognized by the US and European Union, two big markets for organic food, So small farmers still cannot sell their produce abroad.
- They can't sell their food to NPOP - certified processors either, This means they often have little incentive to stay organic

3.7. NATIONAL YEAR OF MILLETS

Why in News?

• Recently, government has approved 2018 as the 'National Year of Millets' to boost the agro-industry and production of the cereal.

Background

- India is the largest producer of millets followed by the African countries of Nigeria and Niger.
- Approximately 60 million acres of land in India is under millet cultivation.

Four Dimensional benefits of Millets

Farming and Food Security perspective

- Less water requirement as compared to other crops due to an efficient root system.
- The short growing period assist in meeting the food demand.
- Less affected by diseases and pests, thus minimum requirement of pesticides.
- Used as food and fodder—in mixed farming systems.
- Intercropped with wide variety of vital crops.
- It can be alternative to major crop under the pretext of rising temperature and climate change.

Cultural and Poverty perspective

- Traditionally associated with cultivation practice of tribal e.g. Karnataka Ragi Habba (Festival).
- o Does not require high mechanization and it can withstand drought,
- Gives more output with less input cost.

• Nutrition Perspective

- Millets are rich in vitamins, calcium, iron, potassium, magnesium, zinc, and has low-GI (Glycemic index)
 which can reduce the malnourishment and hunger problem in India.
- Beneficial to gluten intolerant and high diabetic people.

• Environmental Perspective

- o It has good ability to sequester carbon and assist in climate adaptation.
- o It utilizes mainly organic fertilizer, thereby, reducing both the economic and environmental cost associated with chemical fertilizers.

Challenges

- **Unfavorable agricultural Policy-** Crop loan, subsidies, Public Distribution System (PDS) are favourable for crops such as Rice, Wheat etc. which acts as a disincentive towards the cultivation of Millets.
- **Focus on Specific Millets** most of the states usually focus on sorghum, pearl millet and finger millet and leave out many of the small millets while implementing these schemes.
- **Dietary Habits-** Due to increasing urbanization and industrialization, people are converging towards the consumption of Rice and Wheat (India Council of Agricultural Research 2014.)
- Lack of Awareness- about the socio-economic and nutrition benefits of Millets distorts its demand and supply. Moreover, Millets have a tag of 'a poor man's food' which further reduce its consumption.

Way Forward

- **Integrated Millet Development strategy-** A holistic production-distribution strategy encompassing soil health, seed availability, mechanization and awareness generation is need of the hour.
- **Policy action** In order to encourage famers to cultivate millets, government should generate demand by including the wide range of Millets varieties under Mid-Day Meal and Public Distribution (PDS).

About Millets

- Millets are a group of small-seeded grasses, grow as cereal crops/ grains.
- It includes Jowar, Ragi, Korra, Arke, Sama, Bajra, Chena/Barr and Sanwa.
- Agro-Climatic Condition- grows well on well-drained loamy soils, arid and semi-arid such as in Rajasthan, Karnataka, Madhya Pradesh, etc.

Government Initiatives for Millets

- Integrated Cereals Development Programmes in Coarse Cereals based Cropping Systems Areas (ICDP-CC).
- Initiative for Nutritional Security through Intensive Millets Promotion (INSIMP)- aimed to bring 0.5 million hectare under Millets Cultivation, supply hybrid seed, establish composite millets processing units.
- Extension under Public Distribution System- under the National food security Act 2013, millets has been include under the PDS basket.

- **Customized approach-** Millet cropping systems are part of diverse rain-fed ecosystems. Thus, they need custom-made location specific approaches.
- Special initiatives for backward and tribal regions- covering demand-supply gaps and ground level research are needed.

3.8. PINK BOLLWORM ATTACK ON COTTON

Why in news?

Cotton plantations in various parts of the country have been hit due to infestation of Pink Bollworm (PBW).

More about the News

- It has majorly affected cotton plantations in Maharashtra, Telangana, Andhra Pradesh, Karnataka and Gujarat.
- One of the worst hit states is Maharashtra because farmers there had planted a record 42 lakh plus hectares under cotton encouraged by previous year's remunerative realisations.
- Gujarat on the other hand is comparatively less damaged as infestation happened at later stages due to better crop management by farmers, government agencies and seed companies.
- The drop in output could lead to rise in local prices and reduction in exports from India.

Causes of Pink Bollworm Infestation

- Absence of Crop Rotation encourages breeding of the pest. Large hybrids, over a thousand different varieties, with varying flowering and fruiting periods ensure continuous food availability to pests.
- Quality of Seeds: Moreover, this year, herbicide-tolerant hybrids not approved for cultivation have been sown. There are also cases of seed companies selling non-Bt cotton as Bt.
- Resistance to Bt cotton in pink bollworm due to longer duration crop (> 120 days) & continuous cropping.
- Farmers do not follow Standard Protocols along with planting Bt cotton to prevent infestation due to underinformation or ignorance in following the rules.

Solutions

- Refugia crop: Planting non-Bt cotton as 'refugia' in the vicinity of the main Bt-cotton. Non-Bt cotton can act as a host for PBW and deter it to develop resistance to Bt toxins. It can be enforced by supplying the seeds in the same bags that contain Bt seeds.
- Using Original Bt cotton: Only recommended hybrids/varieties from companies with established R&D facilities which can vouch for the trait purity of the Bt cotton should be supplied.
- **Pre-cultivation measures** to prevent the carry-over of pink bollworm to the next cotton season such as selection of varieties with early maturity, drying of seeds under sun for 6-8 hours sowing of acid delinted seeds, two deep ploughings etc.
- Post-harvest Measures such as pheromone traps near cotton godowns to attract post-season moths, allowing cattle grazing of the left over green balls on the plant, destruction of cotton stubbles immediate to harvest, educating farmers and promotion of proper scientific methods etc.

3.9. THE PROBLEM OF LAND HOARDING

Why in news?

As per a recent report, the Centre does not know exactly how much property it owns creating a problem of land hoarding.

Facts

- India is the largest cotton producing and second largest exporting country according to a report published by the International **Cotton Advisory Committee** in March 2017.
- Gujarat is the largest cotton producer in India followed by Maharashtra.

Government Initiatives: Pradhan Mantri Fasal Bima Yojana

It was launched in 2016. It is a yield based insurance scheme. It replaced the National Agricultural Insurance Scheme (NAIS) and Modified National Agricultural Insurance Scheme (MNAIS).

It covers yield loss due to non-preventable risks viz. natural fire, lightening, cyclone, flood, landslide, pests/diseases etc.

Government Land Information System (GLIS)

- It is a first-of-its-kind centralised database created by the Ministry of electronics and information technology and monitored by the Prime Minister's Office (PMO).
- It records total area, geo-positioning maps, and details such as ownership rights.
- According to the portal, the railways is the biggest landowner among Union ministries. The defence ministry, which owns a large share of the government's land holding, has given only partial details citing security concerns.

Details

- As per the information provided by the Government Land Information System (GLIS), various Central Ministries admit to owning only about 13,50,500 hectares of land. Whereas, disparate official sources suggest that the correct figure is several times more than what is disclosed.
- The situation is worsened by the fact that a large proportion of government land lies unused.

Impact

- Lack of productive use: A large part of the unused land is high-value property in prime areas in major cities. Lack of database means that these cannot be developed and used and is prone to encroachment.
- Artificial scarcity & high prices: It has created artificial scarcity and is one of the main drivers of skyrocketing urban real estate prices. This leads to unaffordable housing and reduced competitiveness of industrial & development projects.
- **Corruption in allocation of this land** Scams involving the Adarsh Cooperative Housing Society, the Srinagar airfield project and the Kandla Port Trust are a few of the many such examples to misuse government land.
- **Inadequate ownership records:** For e.g.- 13 major ports have failed to produce title deeds for as much as 45% of their land holdings. This makes squatters difficult to evict & therefore they gravitate to these areas.
- Land amassed by private developers/ SEZ: Another report by the CAG on Special Economic Zones shows that as much as 31,886 hectares, or 53% of the total land acquired by the government for these zones, remains unused land which could have been put to more productive use by its original owners.

Suggestions

- Furnish details about usage of acquired land: People have the right to know about usage of land acquired by government by way of compensation. For e.g.- in Britain, the government has pledged to provide details of ownership, location and intended use for all properties. Also citizens are invited to contest official land use and suggest alternatives under a 'right to contest'.
- Comprehensive inventory of land resources and usage patterns: A comprehensive inventory of land resources and usage patterns should be made with information on the location of each property, its dimensions, legal title, current & planned use etc. to enable effective identification of land usage pattern.
- **Use of surplus land:**_Surplus land should be utilised to meet the growing demands for services such as water and waste disposal, housing and transportation projects etc. and land intended for future use should be rented out, through a transparent bidding process, till such time it is needed.

3.10. FLOOR SPACE INDEX

Why in news?

The ministry of state for housing and urban affairs has set up a committee to look at a higher floor space index (FSI) to make our cities taller.

Background

- In Indian cities, FSI is generally about 1.50, which is said to be on the lower side given the needs of rapid urbanization. FSI in India (and FAR (Floor Area Ratio) everywhere else in the world), is the ratio of a building's total floor area to the size of the piece of the land on which it is built.
- Most of the cities have low FSI as they have grown horizontally. This has put onerous demands on the
 amount of land that cities had to gobble up to accommodate the teeming millions. As per Census 2011, 377
 million people lived in urban areas which are expected to increase to approximately 590 million people by
 2030, according to a McKinsey report 2010.

Benefits of vertical growth of cities

- Reduced cost of real estate because the share of land cost in real estate comes down.
- **Facilitates mass transport** because greater density makes it much more viable and affordable. This, in turn, reduces the massive dependence on personal cars that are effectively choking roads across most cities.
- **Push to planned urban development** For ex: increasing the availability of land in urban areas is critical to meet the demand for affordable housing under Pradhan Mantri Awas Yojana (Urban).

Drawbacks of raising FSI

- **Infrastructure deficit** Pressing for a major upward revision of FSI without a corresponding improvement in infrastructure, particularly transport to deal with crowding will pose more problems.
- **High maintenance cost** High FSI will allow sky scrapers where day-to-day management of building requires a high cost. It will house the rich and may not be able to address the shortage in affordable housing category.
- One size fits all Cities are contextual, what applies in one city might not hold good in another. Thus, each city needs to decide what kind of growth they can facilitate rather than centre giving a broad overarching national recommendation.

3.11. INCLUSIVE DEVELOPMENT INDEX

Why in news?

India was ranked 62nd among 74 emerging economies on World Economic Forum's Inclusive Development Index.

About the Inclusive Development Index (IDI) 2018

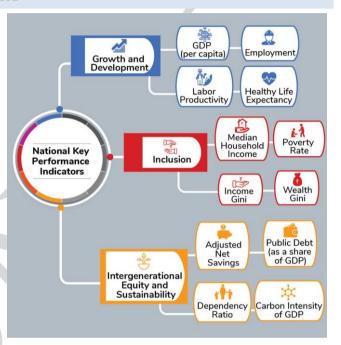
- The 2018 index measures progress of 103 economies on eleven dimensions of economic progress in addition to GDP.
- The 2018 index also takes into account the "living standards, environmental sustainability and protection of future generations from further indebtedness"
- The index presents an alternative to GDP as GDP measures current production of goods and services rather than the extent to which it contributes to broad socio-economic progress as manifested in median household income, employment opportunity, economic security and quality of life.

Some Key Observations

- Lithuania is ranked the world's most inclusive emerging economy, while Norway tops the advanced economy list.
- Globally 64% of the 103 economies have seen their IDI scores improve over the past five years due to efforts of policymakers to broaden socioeconomic progress.
- Performance among BRICS economies is mixed with the Russian Federation (19) ahead of China (26), Brazil (37), India (62), and South Africa (69).
- Socio-Political Implications: Slow progress in living standards and widening inequality has contributed to political polarization and erosion of social cohesion in many advanced and emerging economies.
- WEF also said that rich and poor countries alike are struggling to protect future generations and cautioned that higher growth may not be a panacea for the social frustrations, including those of younger generations.

Performance of India

- India has an **improving trend with rank 62nd out of 74 emerging economies**. Of the three pillars, India ranks decent on inclusion, growth & development and inter-generational equity.
- Though the **incidence of poverty** has declined in India over the past five years, 6 out of 10 Indians still live on less than \$3.20 per day. Thus, there is substantial scope for improvement for India in this aspect.



Facts related to Inequality from Oxfam report

- Oxfam, in its report titled 'Reward Work, Not Wealth, noted that the richest 1% in India cornered 73% of the wealth generated in 2017 while bottom 67 crore Indians saw their wealth rise by just 1%
- Globally richest 1% took 82% of all growth in global wealth last year while bottom half saw 0% increase in wealth.
- It also pointed out to gender inequality in billionaires stating that globally 9 out of 10 billionaires are men.

3.12. WORLD EMPLOYMENT AND SOCIAL OUTLOOK 2018

Why in News?

Recently, International Labor Organization has released its
 World Employment and Social outlook trend 2018.

Highlights of the global trends in report

- Global unemployment rate It is expected to fall slightly to 5.5% in 2018 (from 5.6% in 2017). However, with growing number of people entering the labour market, global employment will remain elevated at more than 190 million.
- Vulnerable employment- The number of workers in vulnerable forms of employment (own-account workers and contributing family workers) is likely to increase by 17 million per year in 2018 and 2019.
- Working poverty— The global progress is weak in working poverty reduction where extreme working poverty is expected to exceed 114 million in 2018, or 40% of all employed people.
- Inequalities in Labor Market- women face segregation in terms of the sector, occupation and type of employment relationship. Similarly, global youth unemployment rate is standing at 13 per cent.
- Structural shifts to service sector- There is an increasing trend of employment under service sector, whereas manufacturing sector continues to have declining trend of employment rate which confirms the ongoing trend of "premature deindustrialisation".
- reach 11.7 per cent of total population in 2030, up from 9.3 per cent in 2017. This may result into slowdown in labour force growth destabilizing the capital—labor ratio and increased fiscal responsibility of government to support older population.

International Labour Organisation

- **Established in** 1919, it became first affiliated specialized agency of the United Nations in 1946.
- It has total 187 member nation including India is the member to it
- It is the only organisation of UN having tripartite governing structure, representing Workers, Employers and Government.
- It sets labor standards, develops policies and devises programmes promoting decent work for all women and men.

Trends with respect to India

- Unemployment in India is estimated to be raised to 18.3 million in 2017 from an earlier estimate of 17.8 million.
- In India, the share of informal employment has risen within almost all manufacturing industries, partly as a result of labour market rigidities preventing modern manufacturing from creating employment opportunities.

In some ICT-intensive services with

strong job creation over the past couple of decades, have been mainly in traditional low value added services, where informality and vulnerable forms of employment are often dominant.

3.13. GLOBAL TALENT COMPETITIVENESS INDEX

Why in news?

Recently, Global Talent Competitiveness Index (GTCI) was released by INSEAD combined with Adecco group and Tata communications.

More about GTCI

- It is an annual benchmarking report that measures and ranks 119 countries and 90 cities based on their ability to grow, attract and retain talent. It was launched in 2013 and the present report is fifth edition.
- GTCI 2018 is themed "Diversity for Competitiveness".
- It has been developed on an Input-Output model which combines an

Diversity for Competitiveness

Diversity can be defined as collaboration between people with different personalities, knowledge sets, experiences and perspective problem solving. The report points towards three types of Diversity:

- **Cognitive diversity** diversity of knowledge, experience and perspective or way of tackling problems. It leads to innovation and outstanding performance.
- Identity diversity it includes visible demographic categorization such as gender, ethnicity, religious belief, sexual preference, nationality and age.
- **Preference diversity** it refers to the differences in fundamental interests and values that may exist among the individuals, organizations, cities and nations.

In today's economy disruption is normal as the business environment is volatile, uncertain, complex and ambiguous. Therefore staying competitive requires agility, problem solving and innovation.

This point to the fact that talent alone is not enough therefore diversity in talent is key to driving growth and competitiveness. For e.g. the firms in US which have gender and ethical diversity have higher sales, more customers and greater relative profits.

assessment of what countries do to produce and acquire talents (Inputs) and the kind of skills that are available to them as a result(Output).

Important findings of the GTCI

- The list is dominated by developed and high income European countries with 15 of 25 places. Switzerland has topped the list followed by Singapore and United States.
- The common features of the top countries are educational system based on employability, flexible regulatory and business landscape, employment policies combining flexibility and social protection and external and internal openness
- In terms of cities Zurich (Switzerland), Stockholm (Sweden) and Oslo (Norway) secured the top three positions on GTCI.
- Despite the slowing growth in emerging markets. BRICS nations have done fairly well - Brazil (73), Russia (53), China (43) and South Africa (63). However, India is the worst performing country even though it has improved its ranking from 92nd to 81st.
- India has scored average in the field of Formal Education (67), Lifelong Learning (37) and General Knowledge Skills (63).
- But India faces serious risk of worsening brain drain as the report shows that it lacks in attracting the talented diaspora (ranked 98th) and retaining the its own talent (ranked 99th).

Input pillars are -

- Attract This component needs to be viewed in terms of luring foreign valuable resources while internal attraction is focussed on removing barriers to entering the talent pool for groups such as underprivileged and vulnerable section.
- **Grow** This pillar focuses on education and broadly includes apprenticeship, training and continuous education as well as experience and access to growth opportunities.
- Retain the regulatory provisions, market, business and labour landscape within a country facilitate or impede talent attraction and growth thus retaining the talent.
- Enable together the above pillars are classified as part of Enable pillar of GTCI.

3.14. GLOBAL MANUFACTURING INDEX

- World Economic Forum released its **Global Manufacturing Index** and placed India on the 30th position.
- India manufacturing sector has grown by over 7 per cent per year on average in the past three decades and accounts for 16-20 % of India's GDP.
- India has room for improvement across the drivers of production except for demand environment where it is ranked in top 5.
- The report took note of the 'Make in India' initiative to transform India into a manufacturing hub and moving towards a more connected economy with an \$59 billion announcement of a investment in infrastructure in 2017.
- Areas where India is ranked poorly (90th even lower) include female participation in labour force, trade regulatory tariffs, efficiency sustainable resources.

India's Performance vis-à-vis other Important Countries

- Japan is ranked first in the index.
- China figures among 'leading countries', while Brazil and South Africa are in 'nascent' ones.
- Among BRICS nations, Russia is ranked 35th, Brazil 41st and South Africa at 45th place.
- Overall, India is ranked better than its neighbours Sri Lanka (66th), Pakistan (74th) and Bangladesh (80th).
- India has been placed in the 'Legacy' group along with Hungary, Mexico, Philippines, Russia, Thailand and Turkey, among others.

Categorisation of 100 countries in four major groups by report:

- **Leading** (strong current base, high level of readiness for future)
- **High Potential** (limited current base, high potential for future)
- **Legacy** (strong current base, at risk for future)
- Nascent (limited current base, low level of readiness for future)

The report listed human capital and sustainable resources as two key challenges for India.

3.15. ELECTRONICS MANUFACTURING IN INDIA

Why in news?

India's electronics manufacturing has been unable to respond to the rising demand thereby increasing the import bill and losing an opportunity to create employment for millions.

What is electronics industry or Electronic System Design & Manufacturing (ESDM)?

The electronics sector or Electronic System Design & Manufacturing (ESDM) industry produces electronic equipment for industries and consumer electronics products, such as computers, televisions and circuit boards. Electronics sector industries includes following segments

- Electronic Product Markets
- Electronic Manufacturing Services (EMS) markets
- Component Market
- Semiconductor Design Market

The electronic product market dominates with approximately 81% share in the ESDM industry in 2017, whereas component and Electronic Manufacturing Services (EMS) markets are expected to witness high growth rates between 2014 and 2020.

Market size

- The demand for electronics hardware in the country is projected to increase from USD 75 billion in 2015 to USD 400 billion by 2020. The estimated production will reach USD 104 billion by the year 2020, creating a gap of USD 296 billion in demand and production.
- India's share in the global electronics market was a minuscule 1.6% of the market in 2015 that is currently valued over \$1.75 trillion.

SWOT Analysis of ESDM Industry



Recent trend

- Of the country's total demand for electronics, between 50-60% of the products and 70-80% of the components are imported. If the situation doesn't change, expenses on electronics imports could surpass those on oil imports by 2020.
- Business-friendly policies of the Government of India, stable political leadership, and turmoil in certain economies around the globe have together created a conducive investment climate in India, further boosting the domestic manufacturing.

Reasons for low export share of India

- **Inverted tax structure for electronic goods:** Due to a limited base of local component suppliers, manufacturers are dependent on importing parts.
- Foreign direct investment (FDI) in electronics is less than 1% of the total FDI inflow because of onerous labour laws, delays in land-acquisition and the uncertain tax regime have kept investors at bay.
- The procedures for cross-border trade work against the competitiveness of Indian producers as shown by the Doing Business rankings—India ranks 146 in the category of trading across borders due to the high costs of compliance.

Government initiatives

- The Government has approved National Policy on Electronics (NPE).
- The government has listed the electronics industry as a priority sector under its Make in India campaign.
- Modified Special Incentive Package Scheme (MSIPs) provides subsidy of 25% of capital expenditure (20% in SEZs).
- Scheme provides 50% of the cost for development of infrastructure and common facilities in Greenfield clusters (undeveloped or underdeveloped area from electronic manufacturing point of view) and 75% of the cost for Brownfield clusters (area where a significant number of existing EMC exists). Currently around 30 Electronic Manufacturing clusters are notified and GoI is targeting for

National Policy on Electronics (NPE) 2012

Vision: To create a globally competitive electronics design and manufacturing industry to meet the country's need and serve international market.

NPE Goals of 2020

- To achieve a turnover of about USD 400 Billion by 2020
- Investment of about USD 100 Billion and
- Providing employment to around 28 million by 2020.
- Achieving a turnover of USD 55 Billion of chip design and embedded software industry, USD 80 Billion of exports in the sector.
- Setting up of over 200 Electronic Manufacturing Clusters.
- Significantly upscale high-end human resource creation to 2500 PhDs annually by 2020 in the sector.
- 200 Electronic Manufacturing clusters by 2020.
- **Preference to domestically manufactured goods** in Government procurement. Extent of government procurement will not be less than 30%.
- **Electronic Development Funds** for Research & Development and Innovation in Electronics sector is under active consideration to support start-ups in electronics and IP generation in the area of electronics.
- Department has accorded approval for setting up of two semiconductor wafer fabrication manufacturing facilities in the country.
- To promote greater research in electronics and IT, Government of India will fund PhD students in Universities across the country for research in industry specific needs.
- Under the scheme for providing support for skill development, Government of India provides 75% to 100% of training cost for industry specific skills for skilled and semi-skilled workers.
- Opportunities for investment in testing laboratory infrastructure under the mandatory standards regime brought in force.
- Several State Governments, including Andhra Pradesh and Karnataka have already announced complementary incentives as part of their State Electronic Policies. Electronic Manufacturing Clusters have been announced by states of Madhya Pradesh, Andhra Pradesh, Punjab, and Kerala.
- In addition, to recognize and motivate the Micro Small and Medium Scale Enterprises (MSMEs) in the Electronic System Design & Manufacturing (ESDM) sector, the Government of India (GoI) has announced a national scheme for the sector.

Comparison with China

Manufacturing Competitiveness in China

- Stable and substantial supply chain in China with large economies of scale helped China maintain low costs and high margins production of electronic goods in the last two decades.
- Its dominance in electronic manufacturing arises from incredible government support the stakeholders receive primarily in the form of capital subsidy and relaxation of taxes.
- The economy transformed into an export destination for global electronic giants as the country supplied large qualified workers at low wages.
- As China's economy slows down, it struggles with currency devaluation and rising labor wages, the 'lowcost manufacturing' tag has started to lose its sheen,

Manufacturing Competitiveness in India

- On the other hand, India's manufacturing competitiveness is set to soar further as the economy is on growth trajectory.
- Huge electronics domestic demand will be a key driver necessitating the development of local ecosystem.
- Growing investment and increasing local value addition levels will also see manifold jump as more OEMs look toward localization of their products from India.
- Regulatory framework made more investment and business friendly to attract investment through foreign and domestic investors.
- India possesses superior design capabilities and availability of talented workforce at approximately 150% lower wages than China, which strengthens its position

making other emerging economies, such as India, Vietnam, and Malaysia, more attractive for investment.

as a futuristic domestic-cum-export-oriented manufacturing destination for the globe.

3.16. GOVERNMENT E-MARKETPLACE (GEM) 3.0

Why in news?

Government has announced launching of GeM 3.0.

More about the news

- Government e Marketplace (GeM) initially launched in 2016 is an Online Market platform to facilitate
 procurement of goods and services by various Ministries and agencies of the Government and till date, 17
 states have signed an MoU to be part of the GeM.
- It has been envisaged by Government of India as the National Procurement Portal of India.
- It is directly monitored by the PMO office and is expected to touch Rs 50,000 crore transactions in a year and aims to reach Rs2 lakh crore in transactions in the next four to five years
- GeM 3.0 would offer standardised and enriched catalogue management, powerful search engine, real time price comparison, user rating, advanced MIS and analytics.
- A Special Purpose vehicle for Government e-Marketplace (GeM SPV) was also formed under Section 8 of the Companies Act, 2013, for providing procurement of goods & services required by Central & State Government organizations
- National Sellers On-boarding Campaign has also been launched to train sellers/ service providers for transition from GeM 2.0 to GeM 3.0.
- GeM makes the process more transparent and efficient with complete security features due to e-sign at various stages. It also enables the government buyers to procure make in India and small scale industries goods very easily.

3.17. GST E-WAY BILL

Why in news?

- The E-way Bills, aimed at tracking movements of goods under GST, were to be made mandatory for interstate trade from February 1, 2018.
- However, in view of difficulties faced in generating e-way bill due to initial technological glitches, the govt has decided to extend the trial phase for generation of e-way bill, both for inter and intra state movement of goods. It will be applicable from a date to be notified.

What is an E-way bill?

 The E-way bill is a document required to be carried by a person in charge of the conveyance carrying any consignment of goods of value exceeding Rs 50,000.

| Single e-way bill for hassle-free movement of goods throughout the Country | | No need of separate transit pass in each State for movement of good | | Shift from depatmental-policing model to self-declaration model for movement of goods | | BENEFITS | | Taxpayers/ transporters need not visit any Tax Officers/checkpost for generation of e-way bill/movement of goods across States | | No waiting time at checkposts & faster movement of goods thereby optimum use of vehicles/resources, since there are no checkposts in GST regime | | User-friendly e-way bill system | | Easy and quick generation of e-way bill | | Check and balances for smooth tax administration and process simplification for easier Verification of e-way bill by Tax Officers

of goods of value exceeding Rs. 50,000 for sales beyond 10 km in the new Goods and Services Tax (GST) regime, as mandated by the Government in terms of section 68 of the GST Act.

• It is generated from the GST Common Portal by the registered persons or transporters before commencement of movement of goods of consignment.

Validity

- Validity of the e-way bill or consolidated e-way bill depends upon the distance the goods have to be transported.
- The validity is one day upto 100 km and for every 100 km or part thereafter it is one additional day.

Exemptions

- Goods with value less than Rs 50000
- Goods transported from international ports to hinterland ports for clearance by customs
- Interstate movement within a specific area as decided by centre and states
- if goods are transported by non-motorised conveyances.
- A list of more than 150 items as approved by GST Council which includes domesticated animals, fruits and vegetables, fresh milk, khadi, earthen pot, human blood etc.

Challenges with e-way bill

- Ensuring that every transporter especially in the smaller towns knows how to use the GSTN portal
- Internet connectivity in India: there is no guarantee that transporters will be able to use the GSTN portal to address their grievances (If any) while on the road.
- Use of RFIDs and RFID readers: The idea of an automatic mode of verification for transport vehicles at major checkpoints seems very ideal, but ensuring this may be difficult.
- Strict timelines for validity of e-way bills: The validity has been calculated according to the distance travelled and some industry leaders find it unrealistic.

Other features of E-way bill

- Reduction in detention time In case vehicle is detained for more than 30 minutes, transporter can raise a
 complaint
- Facilitates GSTR-1 filing Relevant detail in GST return form gets auto-populated bases on the details furnished in the e-way generation process
- **Prevents double checking** Tax officials will have the power to scrutinise the e-way bill at any point during transit to check tax evasion. However, once verified, e-way bill will not be checked again during movement
- Easy tracking through a unique e-way bill number (EBN) as well as a QR code
- Multiple modes for e-way bill generation such as via SMS/Android apps/web browser on laptop, desktop or phone/third party based system of Suvidha providers etc. for ease of use
- Requirement of consignee's acceptance within 72 hours of generation
- **Provision of cancellation of e-way bill –** within 24 hours of its generation

Way forward

- Take care of the technological aspects such as internet coverage and e-literacy.
- Generate awareness to the assesses about the new arrangement. Adequate training should be given to traders, manufacturers, transporters and other stakeholders.
- The government will also have to factor in unavoidable delays (say due to natural or man-made calamities) and list out the rules for expired e-way bills in such cases.

3.18. MODEL CONCESSION AGREEMENT FOR PORT DEVELOPMENT

Why in news?

Union Cabinet recently approved changes in the model concession agreement (MCA) for public-private partnership projects (PPP) in major ports conceived under Sagarmala programme.

Background

- India has a 7,500 km long coastline and 14,500 km of potentially navigable waterways.
- 12 major and 200 non-major ports are located along the Western and Eastern coastlines have so far been responsible for 90% of India's trade by volume.
- Port development in India is a **concurrent subject.** Major ports are regulated by central government under Major Ports Act, 1963 and non-major ports governed by state governments under the Indian Ports Act 1908.
- PPP projects in Major ports operate on **Revenue Sharing model** and are regulated by **Tariff Authority for Major ports (TAMP).**

Issues related to PPPs in Port development Sector

There have been various challenges that have inhibited private sector participation in port development in India.

- **Inadequacies in Infrastructure:** Existing ports have poor road network within port area, inadequate cargo-handling equipment and insufficient machinery, navigational aids, dredging capacity and lack of technical expertise for port development
- Sharing of project risks: The risks related to logistics sector or government policies are currently born solely by concessionaire which warrants an urgent intervention.
- Financial Unviability: Greenfield port projects in India are usually in remote locations requiring government support for basic infrastructure and access to the site.
- Lack of Market determined tariffs: Currently tariffs for Major ports are fixed by Tariff

Sagarmala Initiative

- It is an initiative Ministry of Shipping and has 4 Pillars:
 - Port modernization & new port development
 - Port connectivity enhancement through rail corridors, freight-friendly expressways and inland waterways
 - o Port-linked industrialization through CEZs, SEZs and Manufacturing Clusters and
 - Coastal Community development
- It is estimated that Sagarmala could boost India's merchandise exports to \$110 billion by 2025 and create an estimated 10 million new jobs.

Other Steps taken by government

- Permitting 100 per cent Foreign Direct Investment (FDI) under the automatic route
- Allowing income tax incentives under the Income Tax Act, 1961
- Formation of joint ventures between major ports and foreign ports, non-major ports and private companies
- Proposal for replacement of the Major Port Trusts Act. 1963 with the Major Port Authorities Bill, 2016
- Standardisation of bidding documents.

Authority of Major Ports (TAMP) which has no standard methodology in applying tariff regulations to major ports and terminals.

- Absence of a grievance redressal mechanism: The current MCA does not have provisions for a grievance redressal mechanism thus parties end up in litigations which lingers the issues for years and reduce efficiency.
- Dominance of Public Sector: The public sector has maintained dominance in the sector and excessive regulation of sector has inhibited competition.
- Labour Issues: Most of the major ports are overstaffed with unskilled and untrained labour and the development of such ports suffer due to frequent labour strikes, inefficiency and low labour productivity

Key Provisions of Revised MCA

- Exit clause: It provides an exit route to developers where they can divest their equity up to 100 per cent after completion of two years from the Commercial Operation Date (COD).
- Changes in Royalty arrangements: The royalty to the developer will be charged on basis of per million tonne of cargo handled and will be linked to wholesale price index thus reducing discretion of tariff setting by TAMP.
- Lower Land Charges: Land rent has been reduced from 200% to 120% for additional land.
- Mechanism for Grievance redressal: MCA envisage constitution of the Society for Affordable Redressal of Disputes - Ports (SAROD-PORTS) as dispute resolution mechanism.
- Enabling Capacity expansion: The concessionaire would be free to deploy higher capacity equipment, facilities, technology and carry out value engineering for higher productivity and cost saving.
- New definition of "Change in Law" to provide for compensation to concessionaire in case of changes in TAMP guidelines, labour laws or environmental laws.
- A complaint portal for port users and a monitoring arrangement has also been introduced for keeping periodical status report of the project.

Implications

- The revised Model Concession Agreement will attract investment for port development.
- Easier exit norms will simplify the route for mergers and acquisitions in Port sector.
- It will also result in better utilisation of physical assets by private developers as they can start operations before getting all certifications.

• It will also bring the provisions of MCA in line with **Major Ports Authority Bill, 2016** which had provided that concessionaire will be free to fix the actual tariffs based on market conditions.

3.19. UDAN 2

Why in news?

The Centre has decided to connect 73 underserved and unserved airports and helipads under the phase 2 of the regional connectivity scheme UDAN.

Details

- The States with maximum number of airports and helipads which will see activation under UDAN 2 scheme include Uttarakhand (15), Uttar Pradesh (9), Arunachal Pradesh (8), Himachal Pradesh (6), Assam (5) and Manipur (5).
- This was the first time bids were received from helicopter operators under the scheme.
- The scheme will provide around 26.5 lakh seats per annum that will be covered with airfare cap of ₹2,500/hr of flying. In addition, around two lakh RCS (regional connectivity scheme) seats per annum are expected to be provided through helicopter operations.
- The Centre has decided not to increase the ₹ 5,000 regional air connectivity levy charged from airlines flying on major routes to fund the UDAN scheme. It would now be partly funded by the dividend that AAI (Airports Authority of India) paid to the Government of India.

About 'UDAN' scheme

UDAN is an innovative scheme to develop the regional aviation market. The objective of the scheme was **"Ude Desh Ka Aam Naagrik".**

Key Features

- UDAN will be applicable on flights which cover between 200 km and 800 km with no lower limit set for hilly, remote, island and security sensitive regions.
- The scheme seeks to reserve a minimum number of UDAN seats i.e. seats at subsidized rates and also cap the fare for short distance flights.
- This would be achieved through two means:
 - ✓ A **financial stimulus** in the form of concessions from Central and State governments and airport operators like tax concessions, exemptions from parking and landing charges etc.
 - ✓ A **Viability Gap Funding** to the interested airlines to kick-off operations from such airports so that the passenger fares are kept affordable. Such support would be **withdrawn after a three year period**, as by that time, the route is expected to become self-sustainable.
- A **Regional Connectivity Fund** would be created to meet the VGF requirements under the scheme. The RCF levy per departure will be applied to certain domestic flights along with 20% contribution from states.
- For **balanced regional growth**, the allocations under the scheme would be equitably spread across the five geographical regions of the country viz. North, West, South, East and North-east.
- The scheme UDAN envisages providing connectivity to un-served and under-served airports of the country through revival of existing air-strips and airports.
- The scheme would be in operation for a period of 10 years.

Significance

- The scheme would ensure affordability, connectivity, growth and development.
- This would help in generating employment.
- It provides an additional business opportunity by increasing the potential for moving existing perishable cargo, fragile goods and high-value export-oriented products by air.
- The state governments would reap the benefit of development of remote areas, enhance trade and commerce and more tourism expansion through the introduction of small aircrafts and helicopters.

Criticisms

- Airlines represent luxury. In a poor country like India it seems a case of misplaced priorities when governments and passengers have to bear the cost of additional subsidies to connect regional air routes.
- India is the fastest growing aviation market in terms of passenger traffic. State subsidies, therefore, are best used elsewhere.

• The assumption that three years would be enough to make a route sustainable might be misplaced. It does not take into account a scenario of fuel cost increase that would significantly change the air cost dynamics.

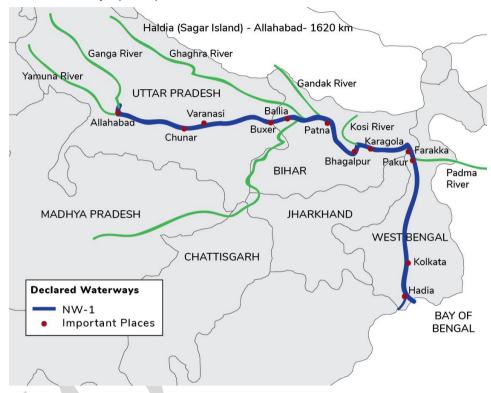
3.20. JAL MARG VIKAS PROJECT

Why in News?

• Recently, government has granted ₹5,369 crores to Jal Marg Vikas Project for development of fairway (navigable waterway) on National Waterway-1(NW 1).

About Jal Marg Vikas Project (JMVP)

- It is a World Bank funded (partially) project on the river Ganga, being developed between Allahabad and Haldia (on NW 1) by Inland Waterways Authority.
- Its objective is to achieve an appropriate depth and width to enable commercial navigation of vessels with capacity of 1500-2000 DWT (Deadweight tonnage).
- It will establish a multimodal terminal at Varanasi, Sahibganj and Haldia for rail and road connectivity.



• The project adopted the first time in India a **River Information System**, an IT based system to optimised the resource management of waterborne transport chain by enabling information exchange between vessels, lock and bridges, terminals and ports, status of fairways, calamity abatement etc.

3.21. LOGISTICS EASE ACROSS DIFFERENT STATES

Why in news?

Gujarat has topped in the newly released logistics index (LEADS) by Ministry of commerce and industry, followed by Punjab & Andhra Pradesh.

Logistics Ease Across Different States (LEADS)

- It is loosely based on the World Bank's biannual Logistics Performance Index (LPI), on which India was ranked 35 among 160 countries in 2016, up from 54 in 2014.
- It is a composite index based on eight parameters such as infrastructure, services, timeliness, track and trace, competitiveness of pricing, safety of cargo, operating environment and regulatory process.
- It aims to serve as an indicator of efficiency of logistical services necessary for promoting investment, exports and economic growth in general.

Concerns highlighted by LEADS

- The logistics performance of Indian states and Union territories overall is "sub-par" owing to a host of inefficiencies
- The study found that supply chain efficiencies and economies of scale are yet to be unlocked, mostly due to suboptimal investment in building scale in infrastructure, automation, human capital and technology,

- inadequate terminal capacity, poor last-mile terminal connectivity and issues in regulatory services provided by government agencies, among others.
- It also underlined issues specific to certain states. For example, labor unions created impediments for trade efficiency in states like West Bengal, Kerala, Maharashtra and Himachal Pradesh.

Note: For more information on logistic sector refer November CA 2017

3.22. AMENDMENTS IN FOREIGN DIRECT INVESTMENT (FDI) POLICY

Why in news?

Recently, major liberalisation in FDI policy has been announced by the government.

Background

- FDI is a major driver of economic growth and a source of non-debt finance for the economic development of the country.
- Government has put in place an investor friendly policy on FDI, under which FDI up to 100% is permitted on the automatic route in most sectors.
- In the past, the Government has brought FDI policy reforms in a number of sectors viz. Defence, Construction, Asset reconstruction Companies, Insurance, Pension and Other Financial Services etc.

FDI policy in Single Brand Retail Trading

- Earlier policy on SBRT allowed 49% FDI under automatic route, and FDI beyond 49% and up to 100% through Government approval route.
- Now, 100% FDI under automatic route for Single Brand Retail Trading(SBRT) has been allowed

Other amendments in FDI policy announced

- 100% FDI under automatic route in Construction Development in Townships, Housing, Built-up Infrastructure and Real Estate Broking Services.
- Foreign airlines allowed investing up to 49% under approval route in Air India
- FIIs/FPIs allowed to invest in Power Exchanges through primary market unlike earlier restriction to secondary market only
- Amendment in definition of 'medical devices' by dropping the reference to Drugs and Cosmetics Act from FDI policy.

Retail Industry in India

- It accounts for over 10% of the country's GDP and around 8% of the employment.
- Indian retail market is divided into Organised Retail Market which is 9% of total sector & Unorganised Retail Market constitutes 91% of the sector.
- It has been decided to permit SBRT entity to make up for its incremental sourcing of goods from India for global operations during initial 5 years, beginning 1st April of the year of the opening of first store against the mandatory sourcing requirement of 30% of purchases from India.

FDI in SBRT: Pros and Cons	
Pros	Cons
1. Integrate country with global supply chain.	1. Could lead to shut down of local stores.
2. Infrastructure development – warehouse, storages,	2. Profitability of small and medium enterprise would be affected
logistics, etc. It will reduce wastages and promote	due to competition and predatory pricing methods.
growth in various sectors including agriculture.	
3. Enhance competition and ensure better price and	3. Fear of lower price would put the domestic industry under
quality for consumers.	stress.
4. Can give boost to investments in India and will	4. Some experts believe that unemployment will rise and can harm
improve India's ease of doing business.	country's economy.
5. Can give boost to technology transfer and	5. Can have an impact on India's Make in India programme.
knowledge sharing and bring better managerial skills.	
6. Will create job opportunities and employment.	

3.23. UNIVERSAL EXCHANGE

Why in news?

The Securities and Exchange Board of India (Sebi) has cleared in principle the convergence of financial exchanges, allowing the same exchange to offer products in the equity, commodity derivatives, debt and currency segments.

Details

- This clearance will enable the BSE and the National Stock Exchange (NSE) to launch commodity derivatives trading and enable the Multi Commodity Exchange of India (MCX) and the National Commodity and Derivatives Exchange (NCDEX) to move into the equity segments. Detailed guidelines are yet to be issued.
- There is a two-phase timeline. The first phase will involve integration at the intermediary level, while the second phase will enable an exchange to offer products across equity, equity derivatives, commodity derivatives, currency derivatives, interest rate futures and other debt instruments.

Impact

- This move should enhance competition across all categories, thus creating deeper markets with lower spreads and exchange fees.
- It should offer greater convenience, in that traders will be able to trade all asset categories from a single account.
- It may also lead to consolidation cross-holding norms will have to be reviewed in case mergers between exchanges appear attractive.
- Indian exchanges will find it easier to compete with Singapore and Dubai now as they will also be present in multiple segments. This might help in preventing exporting our markets.

India and universal exchanges

- India has perhaps as an exception not followed global norms and has permitted universal exchanges. As of now, it is an in-principle decision and terming commodity exchanges as stock exchanges was a first step in that direction.
- India has one regulator for commodities and equities for the past two years. The law recognises all exchanges, whether in commodity derivatives or equities, as stock exchanges. Brokers are given universal licences, which mean they don't have to have a separate company for trading in a commodity and a separate one for equities. In such a scenario, allowing all exchanges to offer all segments is seen as logical.
- Russia, South Korea and Australia have one exchange to trade in all asset classes but there the share of commodities in total revenues of the exchange is insignificant.
- The US has separate regulators for equities and another for all derivatives (including in equities, commodities and forex) but exchanges where these commodities are traded are different and equity and commodity are not on any single exchange.

Challenges

- Risk management across asset classes will be the big new challenge, given the significant differences between commodities and equities. Extensive review and modification of margining systems and trading platforms will be required.
- Overall, this is a progressive move but the details of implementation will be crucial.

3.24. INDIA BPO PROMOTION SCHEME AND NORTH EAST BPO PROMOTION SCHEME

Why in news?

Recently, it was reported that under the India BPO promotion scheme, 11,000 people have been employed out of which 40% are women.

India BPO Promotion Scheme (IBPS)

- It is a scheme which has been approved under the Digital India Programme to incentivize the BPO/IT-ITES operations sector in the country.
- IBPS was launched in 2014 with an outlay of 493 crore up to 31 March 2019.
- The Software Technology Park of India (STPI) is the implementing agency of the scheme.
- The Scheme aims to incentivize the establishment of BPO firms and their extension to Tier 2 and Tier 3

BPO Sector in India

- India holds a total share of 38% in global BPO industry due to advantages such as skilled manpower, high-quality low cost technology etc.
- However, according to the Nasscom projection the growth prospects of Indian BPO sector had lowered to 10% in 2016-17 from 12% in 2014-15.
- Some of the reasons for lowered projections are rapidly shifting technology, Brexit, changes in visa and immigration norms, protectionist policies of USA, growing automation and robotics.
- India's BPO sector which is primarily concentrated in few Tier 1 cities which is currently facing issues such as rising cost of real estate and salaries to the skilled manpower. Thus increasing the running cost and loss of their edge over other countries.

cities providing about **1.45 lakh jobs**, distributed across various states in proportion to the population of State with **financial support** in form of **Viability Gap Funding**.

Features of the scheme

- Financial support up to 50% of the expenditure towards Capital Expenditure and/or Operational Expenditure subject to an upper limit of 1 Lakh per seat.
- o Special incentives for employing women and persons with disability, generating employment beyond target and wider dispersal within state.
- Encouragement of local entrepreneurs
- Special consideration for Hilly areas and rural areas.

Significance

- It will create employment opportunities for youth, by promoting IT-ITES services through setting up of BPOs/ITES Operations.
- Promote investment in IT/ITES sector to expand the base of IT industry and secure balanced regional growth.
- Expanding the reach of BPOs in Tier 2 and Tier 3 cities will help the companies to retain their cost arbitrage as expenses are soaring in Tier 1 cities
- It is significant for the women empowerment and benefits for people with disabilities as well.

The Software Technology Park of India

- It is an autonomous society under the MeitY which aims to make India an IT superpower.
- Its objective is to promote the development and export of software and software services including IT enabled services and provide statutory and other promotional services to the exporter by implementing Software Technology Park and other schemes.

North-Fast BPO Promotion Scheme

- The Scheme has been launched under the Centre's flagship scheme 'Digital India' program to incentivise establishment of 5000 seats of BPO/ITES operations in North-East with an outlay of 50 crore up to 31 March 2019. It is being implemented by STPI.
- The scheme provides special incentive for training employees and incentive for diversity and inclusion in addition, employing women and people with disability etc.

3.25. NATIONAL INVESTMENT AND INFRASTRUCTURE FUND

Why in news?

National Investment and Infrastructure Fund (NIIF) has announced the creation of its first investment platform.

More from news

It has been created in partnership with Dubai-based port Operator DP World for investment terminals, in ports, transportation and logistics business in India.

About NIIF

It is **India's first sovereign wealth fund** that seeks to create long-term value for and international investors domestic seeking investment in energy, transportation, housing, water, waste management etc. in greenfield,

brownfield and stalled projects.

Alternative Investment Fund

- It refers to any privately polled investment fund in form of a trust or a company or a body corporate or limited liability partnership which do not come jurisdiction of any regulatory agency in India.
- AIFs have been defined in Regulation 2(1)(b) of SEBI (Alternate Investment Fund) Regulations 2012. And its definition includes venture capital fund, hedge fund, private equity fund etc.

Sovereign wealth fund

- It consists of pools of money derived from a country's reserves, set aside for investment purposes to benefit the country's economy and citizens.
- The funding for a sovereign wealth fund comes from central bank reserves that accumulate as a result of budget and trade surpluses, and from revenue generated from the exports of natural resources.
- It has been set up as fund of funds and is registered with Securities and Exchange Board of India (SEBI) as a Category II Alternative Investment Fund under SEBI (Alternate Investment Fund) Regulations, 2012.
- The activities of NIIF are being overseen by a Governing Council headed by Finance Minister.

3.26. IRFC'S FIRST GREEN BOND

Why in news?

• Recently, **India INX** has listed Indian Railways Finance Corporation's (IRFC) first green bond on its global securities market (GSM).

More about the news

- According to Government, India needs over \$1.5 trillion investment in the next 10 years to bridge infrastructure gap.
- It will reduce transaction cost and make funds available at cheaper rate.
- It became the first debt security to be listed on an exchange at IFSC in Gujarat's GIFT city.

About Green Bond

- Definition: According to SEBI, it's a debt instrument issued by an entity for

 pricing funds from investors for financing
 - raising funds from investors for financing 'green' projects, such as renewable energy, low carbon transport, sustainable water management, climate change adaptation, energy efficiency, sustainable waste management, biodiversity conservation etc.
- Green bonds are gaining momentum globally and likely global green bond issuance in 2017 will be \$150bn.
- Some latest green bonds from India RENEW POWER, IREDA, GREENKO

Significance

- Economical alternative: They typically carry a lower interest rate than the loans offered by the commercial banks. Hence, help in reducing the cost of capital.
- Promote Brand: It enhances an issuer's reputation, as it helps in showcasing their commitment towards sustainable development.

IRFC

- It is a dedicated financing arm of the Indian Railways for mobilizing funds from domestic as well as overseas Capital Markets.
- It is a **Schedule 'A' Public Sector Enterprise** and registered as Systemically Important Non–Deposit taking Non-Banking Financial Company and Infrastructure Finance Company with Reserve Bank of India (RBI).

India's International Stock Exchange (India INX)

- It is a subsidiary of Bombay Stock Exchange which is India's first international exchange at the International Financial Service Centre (IFSC) of GIFT (Gujarat International Financial Tech) City.
- India INXs Global Securities Market (GSM) is India's first debt listing platform which allows fund raising in any currency.

Initiative to promote Green Bond

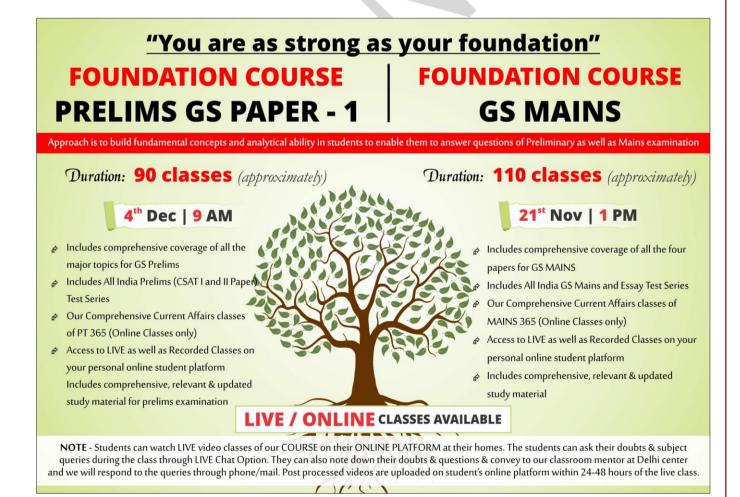
- Indian Green Bonds Council, formed in late 2017
 as a joint project of the federation of Indian
 Chambers of Commerce Industry (FICCI) and the
 Climate Bonds Initiative, to build the country's
 green debt markets.
- Green Infrastructure Investment Coalition (GIIC)
 launched at COP-21, to provide a platform for
 investors, development banks and advisors for
 countries to be able to tap when seeking finance
 for green infrastructure.
- Green Bonds Initiative, a not-for-profit organisation that intends to develop green bonds market.
- **Tapping new investors**: It provides issuer an access to specific set of global investors who invest only in green ventures.
- Accountable financial instruments: Mostly all investors and underwriters have signed the Green Bond Principles, a broad guideline that provides definitions and standards for these fixed income instruments, which ensures transparency in the process.
- **Benefit to investor**: Green bonds would enable investor diversification, mitigate risks since the repayment is tied to the issuer only
- Achieving Sustainable Development Goals(SDG): It is a powerful instrument for financing a sustainable and low-carbon economy like affordable and clean energy (SDG 7), climate action (SDG 13) etc.
- **Help in achieving INDC** by 2030 and 175 gigawatt of renewable energy capacity by 2022 which require huge investments.
- **Abating Climate Change** by tapping Green bonds to finance development activities and achieving positive returns for the environment and society.

Challenges

- Unclear definition: It might prohibit investors as they do not know where their money is going.
- Lack of Liquidity: Due to their long term financing nature, they represent less than 1.5% of the global fixed income market.
- Other issues include low yields, mispricing, lack of sufficient complex research available to make an educated investment decision and the existence of some green bond issuers with unscrupulous reputations for money laundering etc.
- **Currency and Capital Risk**: Many target buyers of Indian green bonds may not invest in any bonds that are rated lower than the AAA.

Way forward

- **Enabling Policy Environment** India can attract significant international capital via robust green bond market to meet national climate and development goals.
- Improving credit rating will make bonds attractive to institutional investors.
- Step to be taken by Indian government to reduce carbon footprint are
 - ✓ Standardize green bonds as a way to finance environmentally sustainable projects,
 - ✓ Provide incentives to investor through tax exemption.



4. SECURITY

4.1. CYBER SECURITY

Why in news?

Ministry of home affairs recently called for signing of the **Budapest Convention on cybercrime** owing to the surge in cyber-crime.

Challenges of Cyber Security in India

 Data colonization: India is net exporter of information however data servers of majority of digital service providers are located outside India.

About Budapest convention on cybercrime

- This convention of the council of Europe is the only binding international instrument on this issue.
- It is the first international treaty on crimes committed via the Internet and other computer networks and deals with issues such as infringements of copyright, computer-related fraud, child pornography and violations of network security.
- It aims to pursue a common criminal policy, especially by adopting appropriate legislation and fostering international police as well as judicial cooperation.
- It provides for procedural law tools to make investigation of cybercrime and securing of e-evidence in relation to any crime more effective
- It is supplemented by a "Protocol on Xenophobia and Racism" committed through computer systems
- Widespread Digital illiteracy makes Indian citizens highly susceptible to cyber fraud, cyber theft, etc.
- Substandard devices: majority of devices used in India to access internet have inadequate security infrastructure. Moreover, there are variety of devices used with non-uniform standards which makes it difficult to provide for a uniform security protocol.
- Import dependence for majority of electronic devices from cellphones to equipments used in power sector, defence, banking, communication and other critical infrastructure put India into a vulnerable situation.
- Lack of adequate infrastructure and trained staff: The present arrangements are highly inadequate and understaffed to deal with the rising incidents of cybercrime.
- Under-reporting: majority of cases of cybercrime remains unreported because of lack of awareness.

Two recent initiatives Cyber Surakshit Bharat Initiative

- It has been launched by Ministry of Electronics and Information Technology (MeitY), in association with National e-Governance Division (NeGD) and industry partners, to strengthen Cybersecurity ecosystem in India.
- It is first public-private partnership of its kind and will leverage the expertise of the IT industry in cybersecurity.
- The founding partners include leading IT companies such as Microsoft, Intel, WIPRO. Its knowledge partners include Cert-In, NIC, NASSCOM and consultancy firms Deloitte and EY.
- It will be operated on three principles of Awareness, Education and Enablement.
- It aims to spread awareness about cybercrime and build capacity of Chief Information Security Officers (CISOs) and frontline IT staff across all government departments.
- It will include series of workshops on the best practices and enablement of the officials with cybersecurity health tool kits to manage and mitigate cyber threats.

Global Centre For Cybersecurity

- It has been launched by the World Economic Forum (WEF) with headquarter in Geneva.
- It will function as an autonomous organization under WEF. It will serve as laboratory and early-warning think tank for future cybersecurity scenarios and help to build a safe and secure global cyberspace.
- Its aim is to establish first global platform for governments, businesses, experts and law enforcement agencies to collaborate on cybersecurity challenges and work towards an appropriate and agile regulatory framework on cybersecurity.
- It will draw on WEF's government and industry support to work towards more secure cyberspace through multistakeholder approach.
- Lack of coordination among various agencies working for cyber security. Private sector, despite being a major stakeholder in the cyberspace, has not been involved proactively for the security of the same.

Steps taken by Government

- **Information Technology Act, 2000(amended in 2008)** provides a legal framework for transactions carried out by means of electronic data interchange and other means of electronic communication.
- Indian Computer Emergency Response Team (CERT-in): established to enhance the security of India's Communications and Information Infrastructure through proactive action and effective collaboration. CERT-fin has also been launched exclusively for financial sector.
- **National Cyber Security Policy 2013**: proposes to set up different bodies to tackle various levels of threats, along with a national nodal agency, to coordinate all matters related to cyber security.
- National Critical Information Infrastructure Protection Centre (NCIIPC) to battle cyber security threats in strategic areas such as air control, nuclear and space. It will function under the National Technical Research Organisation (NTRO), a technical intelligence gathering agency controlled directly by the National Security Adviser in the Prime Minister's Office.
- National cyber coordination centre (NCCC) is being set up to scan internet traffic coming into the country and provide real time situational awareness and alert various security agencies.
- Indian cyber-crime coordination centre (I4C) and Cyber Warrior Police force has been established under newly created Cyber and Information Security (CIS) Division (under Ministry of Home Affairs) to tackle internet crimes such as cyber threats, child pornography and online stalking
- **Controller of Certifying Authorities**: established under IT Act to license and regulate the working of Certifying Authorities. The Certifying Authorities (CAs) issue **digital signature** certificates for electronic authentication of users.
- **Digital Army Programme:** a dedicated cloud to digitize and automate processes, procedures and services for the Indian Army, launched as a part of Digital India. This is similar to Meghraj, the national cloud initiative.
- **Industry Initiatives**: NASSCOM has planned to introduce advanced training programmes with due stress on recent trends in usages of cyber forensic tools and methodologies at its Cyber Labs.

4.2. AADDHAR SECURITY

Why in News?

 Recently, Unique Identification Authority of India (UIDAI), announced introduction of a two-tier security system in the wake of alleged data breaches of Aadhaar.

Proposed two tier security system

Virtual IDs

- It is a 16 digit temporary number (like an OTP) which can only generated by Aadhaar holders in place of Aadhaar numbers to validate their identity.
- It can be generated through UIDAl's portal, enrolment centres, Aadhaar's mobile app, etc.

Unique Identification Authority of India (UIDAI)

- It is a statutory authority established under the provisions of the Aadhaar Act, 2016.
- It works under the aegis of Ministry of Electronics and Information technology.
- It is responsible for Aadhaar enrolment, authentication, developing the policy, procedure and system for issuing Aadhaar numbers etc.
- It consists of a Chairperson appointed on part-time basis, two part-time Members and a Chief Executive Officer who shall be the Member-Secretary of the Authority.

What are AUAs?

- It is an entity that provides Aadhaar Enabled Services to Aadhaar number holders, uses the authentication as facilitated by the **Authentication Service Agency** (ASA).
- An AUA may be a government, public, or private legal agency registered in India that uses UIDAI's Aadhaar authentication services and sends authentication requests to enable its services or business functions.
- ASAs are entities that have secure leased line connectivity with the CIDR and transmit authentication requests to CIDR on behalf of one or more AUAs.
- o There will be **only one active and valid VID** for an Aadhaar number at any given time.
- Limited KYC: It involves giving an agency-specific UID 'token' for e-KYC authentication. It eliminates the need of many agencies storing Aadhaar numbers while still enabling their own paperless KYC.
- For better safety of Aadhar Data, all **Authentication User Agencies (AUAs)** will be divided into two categories:

- Global AUAs Agencies whose services, by law, require them to store the Aadhaar number will be qualified as Global AUAs and will enjoy access to full demographic details of an individual along with the ability to store Aadhaar numbers within their system.
- Local AUAs They will neither get access to full KYC, nor can they store the Aadhaar number on their systems. Instead, they will get a tokenised number issued by UIDAI to identify their customers. UID token will be a unique 72-character alphanumeric string for

Communication Protocol Protocol Https over secured Specified 4 Device Standards Yes/No Response Aadhaai UIDAI'S Authentication ASA/KSA Necessary Updates Yes/No Service and Confirmation

AUA/ASA Specific

AUA Specific

each Aadhaar number for each particular AUA entity.

4.3. PRIVATE PARTICIPATION IN DEFENCE

Why in news?

- Recently, the Defence Acquisition Council (DAC) has simplified 'Make II' procedure.
- The ministry of defence (MoD) has also decided to allow private firms to manage and operate all the Army Base Workshops (ABWs).

Authentication

Need for Private Participation

- Effective use of defence budget: right now major part of the defence budget is spent in purchasing readymade foreign equipments with no transfer of technology. With increased participation of Private sector
 - indigenous capacity building would occur and durable assets would be created that would reduce import dependence.
- **Growth in economy:** Defence, being a major manufacturing sector, acts as a propulsive sector which would promote entrepreneurship, investment and employment.
- Procurement will be streamlined: dependence on foreign causes delay in procurements and at times substandard quality is provided by them, there are issues regarding getting the spare parts too.
- Strategic Autonomy & self-reliance: this becomes very important in critical situations like war. During Kargil war, US had withdrawn its GPS

support which had a severe impact on casualty.

Make II procedure will amend the existing 'Make Procedure' in Defence Procurement Procedure (DPP)-2016.

- This will allow Ministry of Defence to accept suo-motu proposals from the industry and also allows start-ups to develop equipment for Indian Armed Forces.
- The minimum qualification criteria to participate in 'Make II' projects have been relaxed and projects involving cost of less than three crores will be reserved for MSME.

Army Base Workshops (ABWs)

- ABWs will now be operated under "GOCO (Government-Owned Contractor-Managed) Model": the contractor operates and utilises the facilities available, manages all types of work and is also responsible to get required licences, certifications accreditations to deliver mutually agreed targets.
- The decision is a part of larger army reforms based on the recommendations of DB Shekatkar committee.

Challenges

- The defense procurement procedures operate with a bias on the capability and the experience of Indian companies. Lack of experience is often cited as a reason to keep private firms out even at the Requests for Proposals (RFPs) stage.
- Direct and indirect nominations for the defense PSUs and ordnance factories for most of the procurements tilts the scale against the private companies.
- Lack of well thought out strategic plans with foreign countries often impedes technology transfers. This is aggravated by the fact that most governments have strict export control rules which restrict participation of private players.
- Cumbersome land acquisition and environmental clearances and delay in licensing along-with lack of clarity on intellectual property rights impedes private sector participation.

• Lack of adequate industry-academic collaboration and trained workforce are also major challenges in private sector involvement in defence sector.

Steps taken by Government

- Under Defence Procurement Procedure (DPP)-2016, preference to' Buy (Indian-IDDM)' 'Buy (Indian)', 'Buy & Make (Indian)' & 'Make' categories of acquisition over 'Buy (Global)' category. IDDM stands for Indigenously Designed Developed and Manufactured with a minimum of 40% local content.
- The Defence Acquisition Council (DAC) approved the broad contours of the **Strategic Partnership Model (SPM).** The policy is intended to engage the Indian private sector in the manufacture of hi-tech defence equipment in India.
- Since the launch of 'Make in India' initiative in 2014, Department of Industrial Policy & Promotion has issued 81 Industrial Licenses to 61 companies for manufacture of various defence items.
- Foreign Investment upto 49% is allowed through automatic route and above 49% under Government route on case-to-case basis. Moreover, Government is thinking of 100 percent FDI in defence through automatic route.
- To establish a **level-playing field** between Indian private sector and the public sector, the anomalies in excise duty/custom duty have been removed.
- To promote the participation of private sector, particularly SMEs for defence manufacturing, **Outsourcing** and **Vendor Development Guidelines for DPSUs and OFB** have been formulated and circulated to them.

4.4. AGNI V

Why in news?

Recently, Strategic forces command of Indian Army successfully test fired its indigenously built, nuclear-capable missile, Agni-V.

About AGNI-V

- It is an intercontinental surface-tosurface ballistic missile developed by DRDO under the Integrated Guided Missile Development Project (Other missiles developed under the programme were: Prithvi, Trishul, Akash and Nag).
- At present, US, China, Russia, UK, France and Israel are known to have ICBMs.
- It has been equipped with very high accuracy Ring Laser Gyro based Inertial Navigation System (RINS) and Micro Navigation System (MINS).
- India has reportedly also been working on multiple independently targetable reentry vehicles (MIRV) for the Agni-V in order to ensure a credible second strike capability or credible minimum deterrence. MIRV means one missile can carry several warheads, each for different targets.



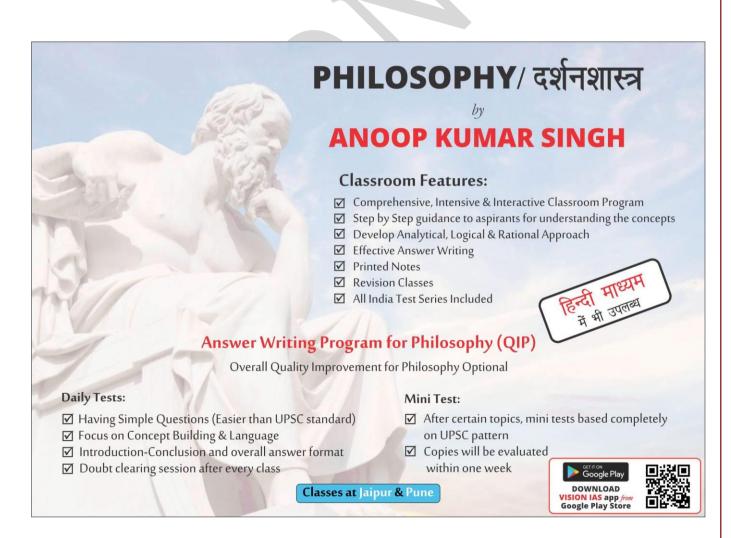
4.5. INS KARANJ

Why in news?

Indian Navy recently launched Scorpene-class submarine INS Karanj.

More about INS Karanj

- INS Karanj is the third of the six Scorpene-class submarines (conventional diesel electric attack submarines) being built by Mazagon Dock Shipbuilders Ltd (MDL) under the Project 75 programme of Indian navy
- The first one, INS Kalvari was commissioned on December 2017. The second one, INS Khandari is undergoing sea trials. Remaining three submarines *Vela*, *Vagir* and *Vagsheer* are in various stages of outfitting.
- The technology being used would ensure superior stealth features such as advanced acoustic silencing techniques, low radiated noise levels and hydrodynamically optimized shape.
- Attacks can be launched using precision guided weapons (torpedoes and tube launched anti-ship missiles) whilst underwater or on surface.
- The Scorpene submarines can undertake various missions such as anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying and area surveillance.



5. ENVIRONMENT

5.1. DISASTER RESILIENT INFRASTRUCTURE

Why in News?

Indian Government recently held a two-day International Workshop on Disaster Resilient Infrastructure
(DRI) under the National Disaster Management Authority (NDMA) in collaboration with United Nations
Office for Disaster Risk Reduction (UNISDR).
 UNISDR was established in 1999 as a dedicated

Background

- Sendai Framework for Disaster Risk Reduction (2015-2030) identifies investing in Disaster Risk Reduction (DRR) for resilience and to "build back better" in reconstruction as priorities.
- In the **10-point agenda** announced by the Indian related technological and environmental disasters. government during Asian Ministerial Conference on Disaster Risk Reduction (2016), the first point focused on 'working to ensure that all development projects are built to appropriate standards and contribute to the resilience of communities they seek to serve."
- An estimate suggests that India needs about \$1.5 trillion **investment in the infrastructure** sector in the coming 10 years which is going to pose a challenge since the country is prone to many disasters like earthquakes, floods, cyclones, etc.
- **SDG Goal 9** recognizes disaster resilient infrastructure as a crucial driver of economic growth and development.

What is DRI?

Infrastructure that can stand any huge damage from any kind of natural disaster is known as Disaster Resilient Infrastructure. It encompasses structural and non-structural measures.

- Structural Measures involve adjusting engineering designs and standards to reflect disaster risk such as flood control systems, protective embankments, seawall rehabilitation, and retrofitting of buildings.
- Non-structural measures refer to risk-sensitive planning, enabling institutional frameworks, hazard mapping, ecosystem-based management, and disaster risk financing.

Why we need DRI?

The frequency and severity of disaster events, especially the large hydro-meteorological disasters, has been increasing which makes DRI inevitably the need of the hour because-

secretariat to facilitate the implementation of the

The International Strategy for Disaster Reduction

(ISDR) is a global framework established within the

United Nations for the promotion of action to reduce

social vulnerability and risks of natural hazards and

International Strategy for Disaster Reduction (ISDR).

- Reduces Economic Loss- It could bring down the economic cost of rebuilding the whole set up that the nations face due to natural disasters.
- Reduce loss to human life- It will also help achieve targets pertaining to reduction in mortality and number of affected people due to disasters.
- Post Disaster Response- The public infrastructure sectors - energy, transportation, tele-communication are also crucial to step up the overall disaster response, thus making their resilience critical for effective post-disaster response.

Steps to be taken

Primarily, there needs to be efforts in four broad thematic areas which include:

- On Disaster Risk Assessment- It would require good, time-series data on past hazards patterns (e.g. wind speeds, high flood levels) and capability to analyse this data to generate probabilistic risk assessments that can guide investment in disaster resilient infrastructure.
- On standards of design & implementation- The national frameworks for design and construction standards must reflect the evolving understanding of natural hazards as well as advancements in engineering technologies.
- On financing new infrastructure and mechanisms for covering risks- Disaster Risk Financing strategy could include budget reserve funds as well as disaster risk transfer instruments like catastrophic bonds.
- On reconstruction and recovery of infrastructure after disasters- The "Build Back Better" principle must be
 followed not only for the structural design of the infrastructure but also in terms of management systems
 around it.

5.2. INDIAN TSUNAMI EARLY WARNING SYSTEM

Why in news?

Recently it was reported that **Indian Tsunami Early Warning System (ITEWS)** is in the process of setting up an elaborate system of sensors for real time monitoring of earthquake.

More Details on ITEWS

- Tsunami is a system of ocean gravity waves formed as a result of large scale disturbance of sea bed, mostly due to earth quake, submarine landslide or volcanic eruptions.
- Indian Ocean is likely to be affected by tsunamis generated mainly from the earthquakes from two potential source regions, the Andaman-Nicobar-Sumatra Island Arc and the Makran Subduction Zone.
- The presence of the tsunamigenic zones increases the vulnerability of Indian coastline to the Oceanic hazards.
- In response to the event such as December 2004 earthquake and tsunami, state-of-art Indian Tsunami Early
 Warning System at Indian National Centre for Ocean Information Centre (INCOIS), Hyderabad was
 established.

Components of ITEWS

- It comprises of a real time network of seismic stations, tsunami buoys, Bottom Pressure Recorder, Tide gauge and 24X7 operational warning centre to detect tsunami-genic earthquake and monitor tsunami.
- INCOIS has also put in place a **fail-safe satellite-based communication system**; Emergency Operation Centres (EOCs), a computer-based earthquake alert and web access system etc. which is capable of sending messages and triggering built in siren alert system audible for up to 1 km.
- It is capable of sending tsunami warning in less than 10 minutes after any major earthquake of 5 magnitude and above in Indian Ocean as well as in the Global Oceans.
- ITEWS acts as a **Regional Tsunami Advisory Service Provider** along with Australia and Indonesia for the Indian Ocean region.

5.3. URBAN HEAT ISLAND

Why in news?

Recently a report by the American Geophysical Union says "fog holes" are observed in urban areas globally -especially over Delhi.

More on the report

- An analysis of satellite images shows that massive holes are formed in the fog over Delhi each year in the winter months of December and January.
- Every winter, the whole of north India is covered by dense fog. But a phenomenon called urban heat island is burning holes in this layer of fog over New Delhi and other cities on the Indo-Gangetic Plain.
- Its effect is so strong in Delhi that it saw 50 per cent less fog than surrounding areas.
- The term "heat island" describes built up areas that are hotter than nearby surrounding areas.

The major factors responsible for UHI:

- **Direct pollution:** From various sources of heat in city from fires, industry, home, agriculture burning in surround areas.
- Absorption of heat: Heat conserving properties of the bricks, fabric and concrete materials of the city
- **Urban geometry:** The height and spacing of buildings affects the amount of radiation received and emitted by urban infrastructure. The tall buildings within many urban areas provide multiple surfaces for the reflection and absorption of sunlight, increasing the intensity with which urban areas are heated.
- Blanketing effect by atmospheric pollution on outgoing radiation
- Lack of vegetation in urban region reduces the natural cooling effect from the shade and evapotranspiration.

Effects of UHI on urban areas

- **Increase in demand for Energy**: Increased temperatures during summer in cities amplify energy demand for air conditioning contributing to higher electricity consumption.
- Increase in greenhouse gas emissions and air pollution: Increased energy demand increases the production of energy from fossils fuels and thermal power plants leading to air pollution in surrounding areas.
- **Discomfort and danger to human health**: Health is impacted due to general exhaustion, heat strokes, heat cramps, headaches and respiratory problems.
- Secondary impacts on weather and climate: This includes changes of local wind patterns, formation of fog
 and clouds, precipitation rates and humidity. The unusual heat can lead to intense vertical movement of air
 leading to thunderstorms and precipitation
- Impact on Plants, Forest and animals: High temperatures may create disturbances on biological life of plants

How to counter UHI effect from the region?

- Use of light-colored concrete and white roofs: to increase the albedo.
- **Use of green roofs**: The roof of a building is partially or completely covered with vegetation which absorbs rainwater; provides insulation helping to lower urban air temperatures.
- Construction of green buildings: These should be constructed in a manner that is resource-efficient, environmentally sustainable. For e.g.: Efficient use of sun light within the building to lower the overall energy usage of the building thus reducing the effect of UHI.
- **Planting trees in cities**: Trees provide shade, absorb carbon dioxide, release oxygen and fresh air, and provide a cooling effect.
- Improvement in technologies and infrastructure: By promoting fuel efficiency to reduce the emission. Adhering to higher standards of emission norms like Bharat Stage VI.

5.4. CARBON SINK

Why in news?

Ministry of Environment and Forest is working on a landscape-based catchment treatment plan to achieve its commitment under INDC.

Background

According to Paris Climate

Agreement, India has pledged to create a carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent through additional forest and tree cover by 2030. However, it has been found that India is likely to miss its target.

 According to IPCC (International Panel on Climate A carbon sink is a natural or artificial reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period. The process by which carbon sinks remove carbon dioxide (CO2) from the atmosphere is known as carbon sequestration.

• Carbon Sequestration is the process by which CO2 is captured from the atmosphere for long-term storage to slow down the accumulation of greehouse gases. E.g.: Afforestation, Carbon Capture and Storage (CCS) techniques.

Step taken to increase Carbon Sink by GOI

- **Green India mission under NAPCC** is implementing the plan to plant 10 million hectares by 2030. This will create carbon sinks to the tune of 2.5 billion tons.
- **CAMPA Fund:** It will be used for afforestation to compensate for loss of forest cover, regeneration of forest ecosystem, wildlife protection and infrastructure development.
- National Afforestation Program: It is being implemented for afforestation of degraded forest lands
- Nagar Vana Udyan Yojana: A minimum of 25 hectares of forests will be created in the city.
- A National Adaptation Fund for Climate Change: To assist State and Union Territories vulnerable to the adverse effects of climate change in meeting the cost of adaptation.
- "Desertification and Land Degradation Atlas of India" by Department of Space. This
 provides detailed information on the present land use, and the severity of land
 degradation in different states from 2005 to 2013 which will provide the basis for future
 land use in the country.

Change) India is most vulnerable to the impact of climate change adversely impacting the health, economic development and food security.

 According to India State of Forest Report (ISFR) 2015 total forest and tree cover is 24.16 % of the total geographical area, which should be 33% as envisioned under National Forest Policy 1988.

Catchment treatment plan & its significance

- Catchment area (area from which all precipitation flows to a single stream or set of streams) can act as a natural carbon sinks that can sequester substantial amounts of atmospheric CO2 in the form of organic carbon in the soil.
- Improving catchment of water can be done through
 - Biological Intervention Concentration¹ Concentration³ through afforestation drive and increasing soil porosity through vermiculture etc. as porous soil is able to hold more water than

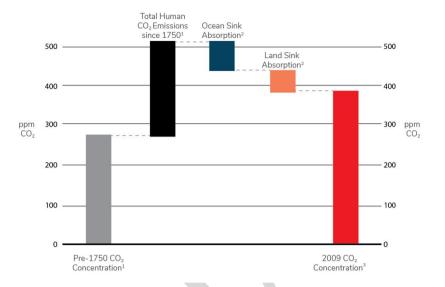
compacted soil.

Employing **mechanical means** such as check dams, underground reservoirs or cement slabs that can channelise the rainwater further into the soil. Planned management of catchment areas will prevent soil erosion, help recharge groundwater and deter forest fires by retaining moisture in the soil.

It will minimise human-animal conflict since
 such a plan will increase availability of water and fodder inside forests and recharge groundwater.

WHY CARBON SINKS MATTER

If It Weren't For The Oceans, Soils and Plant Co_2 Concentrations Would be Over 500ppm



- The carbon stock in India is roughly 7 billion tonnes, equivalent to 25.66 billion tonnes of carbon dioxide.
- 65% of carbon stock is stored in soil, and 35% in trees.
- As per global carbon capture and storage(CCS) institute, India is one among 24 developing countries that are currently engaged in CCS activities such as capacity development, planning and pre-investment and project development.

5.5. LEED FOR CITIES

Why in news?

The LEED for Cities and LEED for Communities frameworks recently completed one year in December, 2017.

About LEED (Leadership in Energy and Environmental Design)

- It is an international certification run by U.S. Green Building Council (USGBC), which **provides a framework** to building owners and operators for identifying and implementing practical green building solutions.
- It concentrates its efforts on improving performance across five key areas of environmental and human health: energy efficiency, indoor environmental quality, materials selection, sustainable site development and water savings.

About LEED for Cities and LEED for Communities

- These are expansion of LEED designed to be applicable to cities, communities, neighborhoods, districts, townships and counties.
- These will track performance on energy use, waste management, water, transport and even quality of life.
- These frameworks require a community or a city to set goals, and implement strategies and plans to maintain and support these goals.
- The city or community then uses an online platform to share performance data to measure and track progress toward those goals, thus focusing on outcomes rather than pledges.
- For certification, projects will track and report key metrics across five categories- Energy, Water, Waste, Transportation and Human experience including Education, Prosperity, Equitability, and Health & Safety.

5.6. ENVIRONMENTAL PERFORMANCE INDEX

Why in news?

India ranked 177 out of 180 in recently released Environmental Performance Index

About Environmental Performance Index

- It is biennial index produced jointly by Yale
 University and Columbia University in collaboration with the World Economic Forum.
- The EPI ranks countries on 24 performance indicators across 10 issue categories.
- Switzerland is ranked first followed by France and Denmark

The 2018 Report on India

- India fell 36 points lower as compared to 141 rank in 2016
- The low rank of emerging economies including China (120) and India (177) indicates strain population pressures and rapid economic growth impose on the environment.



• Moreover, India ranks 178 out of 180 countries as far as air quality is concerned. Its overall low ranking was linked to poor performance in the environment health policy and deaths due to air pollution categories.

5.7. HIMALAYAN RESEARCH FELLOWSHIPS SCHEME

Why in news?

The ministry of environment, forest and climate change (MoEFCC) has decided to start **Himalayan Research Fellowships scheme.**

About the scheme

- Aim: The scheme aims to create a young pool of trained environmental managers, ecologists and socioeconomists. This pool will help generate information on physical, biological, managerial and human aspects of Himalayan environment and development.
- **Implementation**: The fellowship scheme will be executed through various universities and institutions working in the Indian Himalayan Region (IHR) and preference will be given to the Institutions from north-eastern states.
- Funding: The financial support will be provided under the National Mission on Himalayan Studies (NMHS) and the fellowships will be awarded for a maximum period of three years.
- Focus areas: The research may be undertaken in any of the identified broad thematic areas (BTAs) of the NMHS such as water resource management including rejuvenation of springs and catchments, hydropower development, assessment and prediction of water-induced hazards, livelihood options including ecotourism opportunities, biodiversity management including recovery of threatened species and skill development.

Other major Government steps to protect Himalayan Ecosystem

- The National Mission for Sustaining the Himalayan Ecosystem (NMSHE) under the National Action Plan on Climate Change (NAPCC). It aims to continuously assess the health status of the Himalayan Ecosystem and enable policy bodies in their policy-formulation functions
- The Union Government has launched **SECURE Himalaya**, a six-year project to ensure conservation of locally and globally significant biodiversity, land and forest resources in high Himalayan ecosystem.
- National Mission for saving and sustaining Himalayan Eco-System and develop carbon sinks through a forestation in 2010.

Himalayan Ecosystem is the world's highest montane ecosystem extending for more than 3000 Kms. The biodiversity is very rich in Himalayan ecosystem. Some of the floral and faunal species include Oak, Rhododendron, Walnut, Juniper, Snow Leopard, Musk deer etc. A large part of Himalaya has been declared as biodiversity hot spot.

Threat to Himalayan Ecosystem

- Climate Change: Rising temperatures and unpredictable precipitation lead to major changes in freshwater flows,
 disturbing the thermal balance which have dramatic impacts on the various flora and fauna of the region. Tree line is
 going up and the extinction rate has increased many folds.
- **Encroachment**: There is increasing population pressure seen in terms of extension of agricultural land, exploitation of forests for timber, fodder and fuel wood, intensive grazing. These are the major factors contributing to the habitat loss of various flora and fauna
- **Poaching**: Various species of fauna are being hunted for commercial purpose, illegal trade, smuggling, man-animal hunting etc. threatening wildlife in the region.
- **Infrastructure Development**: The competition to develop economy, increasing urbanisation, attaining energy security, connecting remote areas intrudes massively in the natural ecosystem of the Himalayan region.
- Waste Disposal: Human populations, their habitat, discharge from the industries in Himalayan regions give rise to unimaginable non-biodegradable wastes and toxics. These foreign substances enter in the local food chain and through bioaccumulation and biomagnifications completely alter the natural ecosystems.
- Political reasons: Insurgencies, wars, military operations cause destruction of forests and the biodiversity.

5.8. ZERO BUDGET NATURAL FARMING

Why in news?

In a first of its kind move, Andhra Pradesh government is supporting Zero Budget Natural Farming (ZBNF) through self-help groups to improve livelihood of farmers and fight climate change in drought-prone regions.

Zero Budget Natural Farming

- It is a natural farming technique in which farming is done without use of chemicals and without using any credits or spending any money on purchased inputs.
- ZBNF reduces the cost of production down to zero due to utilisation of all the natural resources available in and around the crops. Farmers use earthworms, cow dung, urine, plants, human excreta and other biological fertilizers for crop protection.
- It has been developed by Subhash Palekar.

Features of ZBNF

- Inter-cropping: Under this, combination of various crops is grown simultaneously to produce greater yield on given piece of land by making use of resources that may be utilised by single crop.

 E.g. farmer grow combination crops such as pearl millet, red gram, foxtail millet, along with chillies and tomatoes or multiple crops with groundnut as main crop.
- Use of Bio-Fertilizers and elimination of chemical fertilizers and pesticides Farmers have a practice named Jiwamrita in which they apply fertilizers made of local cow dung and cow urine.
- **Utilization of soil moisture:** Farmer of drought-prone areas adopt **mulching and Waaphasa** to reduce the loss of natural moisture of the soil, increase soil aeration, enhance soil health and fertility and ensure favourable microclimate in the soil
- **Reduce input cost of agriculture:** ZBNF through reduced expenditure on expensive inputs such as fertilizers and pesticides cuts down on input cost and increases farmer income.
- Contours and bunds: to preserve rain water as it promotes maximum efficacy for different crops.
- ZBNF also includes **replenishing water bodies** such as farm ponds to ensure water availability during dry spells.
- Farmers also practice replenishing local species of earthworms on the farm to increase the organic matter in the soil which in-turn increases soil's capacity to retain moisture.



5.9. MANGALAJODI ECOTOURISM TRUST

Why in News?

Mangalajodi Ecotourism Trust (MET) has recently won the United Nations World Tourism Organisation (UNWTO) Awards for "Innovation in Tourism Enterprise".

More about the News

- Mangalajodi is a village located on the northern banks of Chilika Lake in Odisha. It hosts more than 3,00,000 birds in its marshy waters, especially in winters.
- It is defined as "responsible travel to natural areas that conserves the environment.

About Ecotourism

- areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education".
- Due to coordinated efforts by the community the number of migratory birds in the region has been restored since 2000.
- MET is a community owned and managed wildlife conservation venture promoted by RBS Foundation India and Indian Grameen Services.

About UNWTO

- Established in 1975, it is the United Nations agency responsible for the promotion of responsible, sustainable and universally accessible tourism.
- It includes 156 countries, 6 territories and over 500 affiliate members representing the private sector, educational institutions, tourism associations and local tourism authorities. Its headquarters are located in Madrid.
- India is a member of UNWTO since 1975.
- UNWTO Awards for Innovation in Tourism are given to innovative tourism initiatives which are both competitive and sustainable in their character.

5.10. SIKKIM ALLOWS FORGING RELATIONSHIP WITH TREES

Why in news?

Recently Sikkim has allowed forging ties with trees to help preserve them.

More about the news

- As per the notification named **Sikkim Forest Tree (Amity & Reverence) Rules 2017**, the state government has allowed persons to associate with trees standing on his/her private land or any public land. For tree located on public land, the permission must be taken from the Forest Department.
- One can enter into **fraternal ties**, i.e. **Mitini/Mith relationship**, with the tree in which case the tree will be called as Mith/Mit tree.
- One can also adopt a tree as his/her own child in which case the tree will be called as an **Adopted tree** and commitment to preserve a tree in remembrance of a departed relative will be known as **Smriti tree**.
- Tree registered as Mith/Mit, Adopted or Smriti cannot be felled or damaged except with the approval of the government.

5.11. NEW MOTH SPECIES

Why in News?

 Recently, new Moth species has been discovered in Talle Wildlife Sanctuary in Arunachal Pradesh.

Apatani tribe

- They are one of the major ethnic groups of eastern Himalayas.
- The tribe is known for their colorful culture with various festivals, intricate handloom designs, skills in cane and bamboo crafts, and vibrant traditional village councils called bulyañ.
- The community has evolved a unique skill of rice-fish cultivation where along with paddy, fish is also reared on the fields.
- Apatani Tribal Cultural Landscape is in tentative list of UNESCO World Heritage Sites for 'extremely high productivity' and 'unique; ways of preserving ecology.

Other wildlife reserves in Arunachal Pradesh

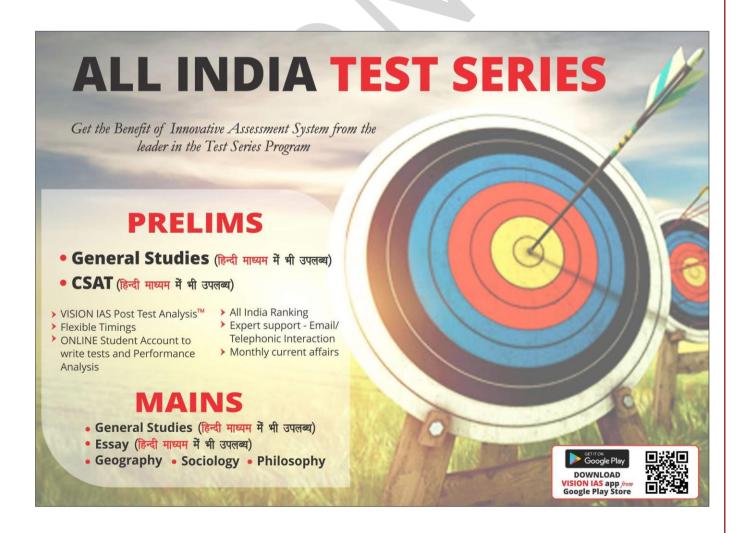
- Wildlife Sanctuary: Itanagar, Lao, Mehao, Dibang Eagle's Nest Sanctuary, Kamlang, Kane.
- National Park: Namdapha, Mouling
- Biospheric Reserve: Dihang-Dibang Biosphere Reserve.

More on News

- It is the first record of this moth species (Elcysma) in Arunachal Pradesh.
- The scientifically name of moth is **Elcysma Ziroensis**, and commonly called Apatani Glory, named after a **local tribe called Apatani**.
- This moth species has one brood of offspring per year.

Talle WildLife Sanctuary

- It lies roughly in between the Subansiri, Sipu and Pange Rivers.
- It is one of the home for clouded leopard (Vulnerable IUCN status).
- Sub-tropical broad leafed, temperate broad leafed and temperate conifer types of vegetation are found here.



6. SCIENCE AND TECHNOLOGY

6.1. SUPERCOMPUTERS PRATYUSH AND MIHIR

Why in news?

Recently, the Minister for Earth Sciences (MoES) unveiled India's fastest supercomputer named Pratyush and high performance computer system 'Mihir'.

More on news

- MoES has acquired a high performance computing (HPC) system which is an array of computers jointly hosted by IITM, Pune and National Centre for Medium Range Weather Forecasting, Noida.
- The HPC at Pune is named Pratyush with a capacity of 4 petaflops (a measure of a computer's processing speed expressed as a quadrillion floating point operations per second)and HPC at Noida named Mihir with capacity of 2.8 petaflops giving a total capacity of 6.8 petaflops.
- It is India's first multi-petaflop supercomputer and is the fourth fastest super-computer in the world which is dedicated to weather and climate research after Japan, U.S.A and United Kingdom.
- It will also take India up from the present 365th position to top 30 in the infrastructural ranking of Top 500 HPC facilities in the world.
- Other top five super computers of India are SahasraT (Cray XC40), Aaditya (IBM/Lenovo system), TIFR Colour Boson (Cray XC-30), IIT Delhi HPC and Param Yuva 2.
- The HPC facility is expected to improve following services
 - o Weather forecasts at block level over India which can predict extreme weather events
 - High resolution forecast of active or break spells of Monsoon
 - High resolution coupled model for prediction of cyclones with more accuracy and lead time
 - Ocean state forecasting including marine water quality forecast
 - o Tsunami forecast with greater lead time
 - Air Quality forecast and Climate projections

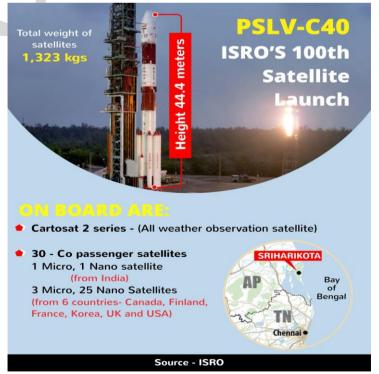
6.2. PSLV C40

Why in news?

 ISRO's PSLV C40 has successfully placed 31 satellites including main payload Cartosat-2s series and 28 foreign satellites in two different orbits.

Significance of the launch

- The launch marks the roll out of the 100th satellite by ISRO
- It is also significant in the sense that India failed in its last attempt to launch its backup navigation satellite IRNSS-1H on board PSLV-C39 failed.
- It is the second time that ISRO will be achieving the two orbits feat. This was done through the "multiple burn technology" under which the rocket's engine is switched off and then switched on to control its height.
- It reinstates India's position as a successful multiple satellite launcher.
- Government recently also announced funding to develop an exclusive Small Satellite Launch Vehicle (SSLV) to cater mini and micro satellites exclusively.



Cartosat-2 series: It a earth observation satellite whose high resolution scene specific spot images will be useful for cartographic applications, urban and rural applications, coastal land use and regulation, road network monitoring, water distribution, creation of land use maps and change detection to bring out geographical Land Information Systems and Geographical Information System applications.

6.3. NASA MISSIONS FOR 2018

Major Projects

Parker Solar Probe

- It will study how energy and heat move through the solar corona and to explore what accelerates the solar wind as well as solar energetic particles.
- It will travel directly into the sun's atmosphere about 4 million miles from its surface and thus help study Corona.

• Star-Planet Activity Research CubeSat (SPARCS)

- SPARCS is a space telescope to study the habitability and high-energy environment around M-dwarf stars.
- Dwarf stars are generally cooler and they may be surrounded by many habitable zones.
- The telescope will study the Ultra-Violet light emitted by dwarf stars.

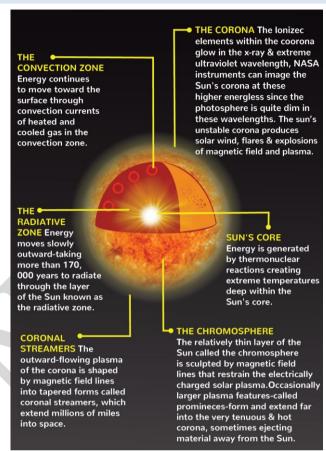
GOLD and ICON mission:

- They refer to Global-scale Observations of the Limb and Disk (GOLD) and Ionospheric Connection Explorer (ICON) respectively.
- ICON will be in low-Earth orbit at 560 km above Earth and GOLD will be at 35398 km above earth surface in a geostationary orbit.
- They will study the **lonosphere region** or the boundary area between Earth and the space where electrically-charged electrons and ions by the Sun's radiation are present.

 Geo disturble excharged excharged environment.
- The missions will help in understanding how upper atmosphere changes in response to hurricanes and geomagnetic storms.

Other Projects

- Transiting Exoplanet Survey Satellite (TESS) to study exoplanets in orbit around the brightest stars in the sky. TESS will monitor more than 200,000 stars for temporary drops in brightness caused by planetary transits.
- InSight Mars lander for Mars (Red Planet)
 which will study the interior of Mars and listen for Marsquakes.
- OSIRIS-Rex: launched earlier in 2016 is scheduled to arrive at the near-Earth asteroid Bennu in August 2018.
- Next generation of ICESat-2 and GRACE satellites to observe Earth's ice sheets, sea level, and underground water reserves.



Geo Magnetic Storm: A geomagnetic storm is a major disturbance of Earth's magnetosphere that occurs due to exchange of energy from the solar wind into the space environment surrounding Earth.

They create beautiful **auroras or the Polar Lights**, but they also can disrupt navigation systems such as the Global Navigation Satellite System (GNSS) and create harmful geomagnetic induced currents (GICs) in the power grid and pipelines.

Dwarf Stars

A dwarf star form at the end of star's evolutionary phase. It has a mass of up to about 20 sols (Our Sun), and luminosity of up to about 20,000 sols.

Chandrasekhar limit is the maximum mass of a stable white dwarf star and a mass greater than the limit will turn the star into a neutron star or black hole at the end of its life.

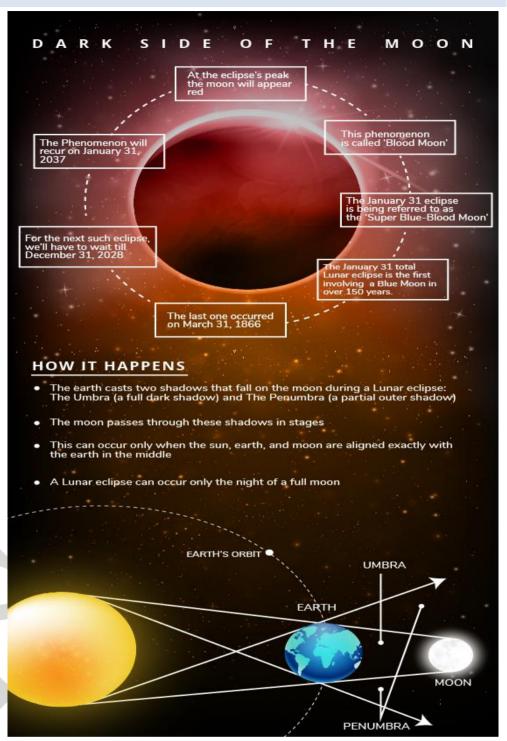
6.4. BLUE MOON

Why in news?

On January 31, 2018, a rare Blue Moon event was experienced on large parts of the globe.

About the news

- It was a rare moment as blue moon, a supermoon and a total lunar eclipse fell on same day after more than 150 years.
- Blue Moon: When two full moons appear in the same calendar month, the second is termed a "blue moon". First full moon occurred on Jan 1, 2018.
- Super Moon: occurs when the full moon is at the closest point of its orbit to the Earth, which is also called the perigee. The moon appears 30% brighter and 14% bigger than the apogee full moon
- Blood Moon: The moon turns into red color during the height of the eclipse as some light does reach it even though the moon is in the shadow of the Earth. Fine particles in the atmosphere scatter (Rayleigh scattering) the blue component of



solar spectrum, & what reaches us is the longer wavelength red light.

• A **lunar eclipse** happens whenever the moon passes through Earth's shadow, also known as its umbra.

6.5. THE REMOVEDEBRIS MISSION

Why in news?

University of Surrey, UK has decided to launch Remove Debris mission this year to remove space debris.

Significance

• There is almost 7,000 tons of active space debris—from old satellites and spacecraft to lost components and spent rocket parts-orbiting Earth at any given moment which may take years to disintegrate.

- More debris, could lead to more collisions a cascade effect known as the Kessler syndrome which may render space eventually inoperable for important services like navigation, communications, weather forecasting etc.
- The Remove Debris satellite platform will showcase four methods for release, capture and deorbit two space debris targets, called DebriSATs:
 - o **Net capture:** It involves a net that will be deployed at the target CubeSat.
 - Harpoon Capture: Which will be launched at a target plate made of "representative satellite panel materials"
 - **Vision-based navigation:** Using cameras and LiDAR (light detection and ranging), the platform will send data about the debris back to the ground for processing.
 - o **De-orbiting process:** As it enters Earth's atmosphere, the spacecraft will burn up, leaving no debris behind.
 - The mission will demonstrate key Active Debris Removal (ADR) technologies in orbit which will have significance for future missions as well.



7. SOCIAL

7.1. SOCIAL PROTECTION

Why in News?

Recently **International Labour Organization** released World Social Protection Report 2017-19.

About Social Protection

- Social protection, or social security, is a human right and is defined as the set of policies and programmes designed to reduce and prevent poverty and vulnerability throughout the life cycle.
- It includes benefits for children and families, maternity, unemployment, employment injury, sickness, old age, disability, survivors, as well as health protection.
- Social protection systems address all these policy areas by a mix of contributory schemes (social insurance) and non-contributory tax-financed benefits, including social assistance.
- Further there are two main features that distinguish social security from other social arrangements-
 - Benefits are provided to beneficiaries without any simultaneous reciprocal obligation
 - It is not based on an individual agreement between the protected person and the provider, as a life insurance contract.



 The ILO Social Protection Floors Recommendation No. 202, adopted in 2012 sets out that member States should establish and maintain national social protection floors described as "nationally defined set of basic social security guarantees which secure protection aimed at preventing or alleviating poverty, vulnerability and social exclusion."

Highlights of the Report

- Despite significant progress in the extension of social protection in many parts of the world, only 45 per cent
 - of the global population is effectively covered by at least one social protection benefit.
- Only 29 per cent of the global population is covered by comprehensive social security systems that include the full range of benefits, from child and family benefits to old-age pensions.
- The report follows a life cycle approach thereby focusing on people from varied age group, having distinct needs and vulnerabilities. The focal points of the report are-

Other Findings of the Report

- Only 35 per cent of children worldwide enjoy effective access to social protection.
- Only 41.1 per cent of mothers with newborns receive a maternity benefit.
- Only 21.8 per cent of unemployed workers are covered by unemployment benefits.
- Only 27.8 per cent of persons with severe disabilities worldwide receive a **disability benefit**.
- In rural areas 56 per cent of the population lack health coverage as compared to 22 per cent in urban areas.
- Social protection for children in form of transfers, in cash or in kind, are critical for realizing children's rights by preventing them from falling into poverty, preventing child mortality, contributing to their healthy development and well-being, improving their access to essential goods and services, and reducing child labour.

- o **Social protection for women and men of working age-** It helps ensuring income security through maternity protection, unemployment support, employment injury protection, and disability benefits.
 - ✓ These schemes contribute to smooth incomes and aggregate demand, enhance human capital, and promote decent and productive employment.
- Social protection for older women and men- Inability to access protection mechanism through individual efforts and unreliable sources of income means that only a small fraction of the world population has the capacity to fend for itself during old age, making social protection crucial for old age.
- o **Towards universal health coverage** An enabling framework providing legal health coverage, sufficient public funding and an adequate supply of health workers enjoying good working conditions to provide quality services, has the potential to reduce mortality and increase the health status of the population.
- The report identifies **various challenges** for social protection policies like tackling demographic changes, impact of digitalization on future of work and social protection, various austerity measures introduced around the globe during 2008, etc.
- It also provides certain opportunities and gives suggestions for achieving greater social security
 - Expanding fiscal space and generating resources for social protection through:
 - ✓ Reallocating Public Expenditure
 - ✓ Increasing Tax Revenues
 - ✓ Expanding social security coverage and contributory revenues.
 - ✓ Lobbying for aid and transfers
 - ✓ Eliminating illicit financial flows
 - ✓ Using fiscal and central bank foreign exchange reserves.
 - o Promoting inclusive social protection systems.
 - o Providing social protection for migrants given the increasing intensity of migratory movements.

7.2. ALL INDIA SURVEY ON HIGHER EDUCATION

Why in news?

Recently, 8th All India Survey on Higher Education for the year 2016-17 was released by Union Ministry of Human Resource Development.

All India Survey on Higher Education (AISHE) 2016-17

- AISHE is a Pan India, annual web-based survey which covers all the Higher Educational Institutions in the country conducted by Ministry of Human Resource Development.
- Various parameters on which the data is collected are teachers, student enrolment, programs, examination results, education finance, infrastructure etc.

Higher Education in India

- India's Higher Education sector is largest in the world. However, it still lags behind other countries such as USA, China, Thailand etc.
- Despite the large size of the education system, India's top Universities fail to feature in the world ranking list.
- Challenges:
 - Education system plagued with rot learning, lack of employability and skill development.
 - Higher Education System is regulated by many bodies thus reducing the autonomy of Universities.
 - ✓ Lack of funds and largely linear model with very little focus on specialization.
 - ✓ More emphasis on social sciences (also seen in the higher admission in art courses i.e.38% in under grad courses)
 - ✓ Predominance of private sector and skewed sectoral and regional growth.

Government Initiatives:

- **Higher Education Financing Agency** has been approved to improve the development of infrastructure in premier education institutions.
- Recently government has reduced the number of credit for under graduate programs to include the credits for technological innovations.
- It also approved creation of non-lapsable Madhyamik and Uchchtar Shiksha Kosh for secondary and higher education.
- Adoption of **New Delhi Declaration on Education** reiterates India's commitment to achieve SDG 4 and improve quality of education.

Major Findings of AISHE

- **Institutions:** There exists a regional disparity in college density (number of colleges per lakh eligible population) which varies from 7 in Bihar to 59 in Telangana as compared to All India average of 28.
- **Enrolment:** Total enrolment in higher education has been estimated to be 35.7million with an overall increase of 18.3% as compared with 2012-13.
- **Gross Enrolment Ratio (GER):** A high percentage of the eligible population is still outside college as shown by the GER in Higher Education in India of 25.2% (calculated for 18-23 years of age group).
 - o The GER for male population is 26% (22.7% in 2012-13) and female is 24.5% (20.1% in 2012-13).
- **Gender Parity Index:** There is a marginal increase in the **Gender Parity Index (GPI)** (a ratio of proportional representation of female and male) for all categories from 0.89 in 2012-13 to 0.94 in 2016-17.
- Pupil Teacher Ratio (PTR): in Universities and Colleges is 22 which have remained stable from 21 in 2012-13.
- The foreign student enrolment has also been increased from 34,774 in 2012-13 to 47,575 in 2016-17 with a greater increase in male foreign students as compared to female students.
- Uttar Pradesh tops in student enrolment in Universities followed by Maharashtra and Tamil Nadu.

Conclusion

India is aiming to reach a **GER of 30% by 2020**. However in order to reach the goal there are various reforms which government needs to carry out such as

- Increase the quality of Higher Education through improving the pedagogy, modernisation of curriculum, ranking institution and improving the infrastructure to incorporate the modern technology.
- To improve the GER first step should be to control the school-drop outs especially at the secondary levels where 27% of the students dropped out in 2014.
- The Pupil to teacher ration though has been stable in the country however it needs to improve such as compared to USA (12.5:1), China (19.5:1) and Brazil (19:1).
- Allow entrance of foreign universities and provide academic and financial autonomy to them.
- End the dominance of regulatory bodies such as Universities Grants Commission and reform the regulatory system.

 Develop world class educational institutions termed as Institutions of eminence to provide multi-disciplinary course to students.

7.3. ASER ANNUAL REPORT

Why in news?

The Annual Status of Education Report (ASER)
 2017 was recently released by NGO Pratham.

About the Report

- It has been conducted since 2005 in all rural districts in India.
- It is a household survey rather than a school based survey which enables all children to be included for e.g. those who have never been to school or have dropped out.
- Since 2006, ASER has focused on the age group of 5 to 16. However, this year, the survey titled "Beyond Basics" is focusing on youth who are 14 to 18 years old and have moved just beyond the elementary school age.
- It reports on children's schooling status and their ability to do basic reading and arithmetic tasks in its previous reports. This year, a wider set was considered including four domains activity, ability, awareness, and aspirations.



Major Takeaways

- Issue of Learning Outcomes Findings show that learning deficits from the elementary years carry forward to adolescence and adulthood.
- Lack of synergy between enrolment and learning outcomes Mere increase in enrolment in elementary and secondary education has not resulted in any improvement in learning outcomes. Poor foundational skills also mean that many of these youth won't be employable.
- Digital Divide- Access to mobile, computer and internet as well as frequency of digital transactions shows a great digital divide which becomes relevant in government's campaign to push for digital India.
- Structural Issues Drop outs could be due to decrease in no. of secondary schools in the area. According to U-DISE data for 2015-16, for every 100 elementary schools in rural areas there are just 14 schools offering secondary grades and only six school offering senior secondary grades. Consequently, pupils will have to travel long distances to pursue education after elementary school.
- Lack of Innovative Thinking Respondents failing to name any occupation show lack of aspirations and a failure of imagination.

Way forward

- As outlined in the Niti Aayog Three Year Action Agenda, there is need to focus at learning outcomes in the Indian education system to help India materialize its "demographic dividend".
- A time-bound program should be launched so that all children should have age appropriate basic literacy and numeracy skills.
- Education quality in India could be improved by hiring and assessing teachers on merit, rigorous mapping of learning outcomes and rewards for schools that do well and penalties for those who don't.
- Introduction of technology based study models so that pupils passing out secondary school have the required skill to carry out daily tasks in an increasingly technology driven world.
- Automatic promotion through elementary stage under the RTE have adversely affected the learning and application capabilities of individuals. A system must be devised in order to address this issue and push students to acquire knowledge in order to compete at the secondary level.
- RTE should cover the entire spectrum of 18 years. Guaranteed inclusion will empower those in the 14-18 years and will help them getting vital foundational knowledge in order to get inclusion in the workforce.
- Foundational courses in agriculture should replace the usual bachelor's courses seeding the necessary improvement in rural livelihoods. Emphasis should also be given on vocational courses in school.
- Drop-out cases involving lack of funds and loss of interest must be creatively tackled. Policies such as free bicycles in Bihar have been successful in increasing enrolment by improving mobility.

7.4. FERTILITY TREND IN INDIA

Why in news?

Recently the fourth round of the National Family Health Survey (NFHS-4) report on the variations in the total fertility rate (TFR) of different communities was released.

Details

Geographic variance: The fertility

Total Fertility Rate (TFR) may be defined as average number of children that would be born to a woman if she experiences the current fertility pattern throughout her reproductive span (15-49 years).

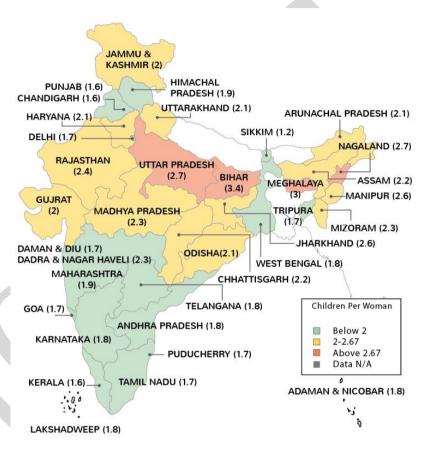
- It is a more direct measure of the level of fertility than the birth rate, since it shows the potential for population change in a country.
- Total fertility rate declined in India from 2.7 in 2005-06 (NFHS-3) to 2.2 in 2015-16 (NFHS-4).

Replacement level fertility is the level of fertility at which a population exactly replaces itself from one generation to the next.

- rate in 23 states and Union territories—including all the southern states—is below the replacement rate while it is higher in a number of states in central, east and north-east India.
 - o Bihar has the highest rate at 3.41, followed by Meghalaya at 3.04 and Uttar Pradesh and Nagaland at
 - Total fertility rate in rural areas was 2.4 while in urban areas it was 1.8.
 - The nature and scope of the fertility-related public health challenge facing state governments varies widely. The most effective way of combating this variance could be assigning a greater role for local bodies in both urban and rural areas.

- Impact of education: Women with 12 years or more of schooling have a fertility rate of 1.7, while women with no schooling have an average rate of 3.1.
 - Lack of education robs women of reproductive control, feeding into India's maternal and child health problem.
 - Combined with younger pregnancies higher and childbearing rates, also it constrains women's economic choices. This, in turn, reinforces a lack of reproductive control—44% of women who are unemployed use modern contraceptives while 60% of women who are employed for cash do so-perpetuating a vicious cycle.
- Skewed pattern of contraceptive usage: Despite increasing knowledge of contraceptive methods men have not taken up the responsibility of managing fertility. The most popular contraceptive method by far, at 36%, is female sterilization. Male sterilization accounts for a mere 0.3%.
- Impact of religion: Cultural and geographical factors and the level of development of different states seem to be more important determinants of TFR. In states with higher TFR, all groups show high levels and vice versa

- Government's Schemes for Family Planning
- **Mission Parivar Vikas-** for substantially increasing the access to contraceptives and family planning services in the high fertility districts of seven high focus states with TFR of 3 and above.
- Scheme for Home delivery of contraceptives by ASHAs wherein ASHAs are delivering contraceptives from door to door in the community.
- National Family Planning Indemnity Scheme (NFPIS) under which clients are insured in the eventualities of deaths, complications and failures following sterilization and the providers/ accredited institutions are indemnified against litigations in those eventualities.



- **Impact of income/ wealth:** The section with the lowest income had the highest number of children at 3.2 and the richest had the least, 1.5.
 - Scheduled tribes, the least developed among social categories, had the highest fertility rate of 2.5, followed by 2.3 for scheduled castes and 2.2 for other backward classes. The upper castes had the lowest fertility rate of 1.9.

7.5. PICTORIAL WARNING ON TOBACCO PRODUCTS

Why in News?

• Supreme Court has stayed the Karnataka High Court decision on reducing the size of Pictorial warning on Tobacco products form 85% to 40%.

Cigarettes and other Tobacco Products (Packaging and Labelling Rules) amendment rule 2017.

- It was mandated that "the specified health warning shall cover at least eighty-five per cent (85%) of the principal display area of the package.
- Sixty per cent (60%) shall cover pictorial health warning and twenty-five per cent (25%) shall cover textual health warning.

Other initiatives to control tobacco use

- India had ratified WHO the Framework Convention on Tobacco Control (WHO FCTC) in 2004.
- MPOWER- (a policy package intended to reduce the demand of Tobacco) initiative of WHO is being implemented in India.
- National Tobacco Control Programme: for greater awareness about the harmful effects of tobacco use and tobacco control law.
 - National Tobacco Control Cell (NTCC) nodal agency for overall policy formulation, planning, monitoring and evaluation of the different activities.
- The Cable Television Networks (Amendment) Act 2000: prohibited tobacco advertising in state controlled electronic media and publications including cable television.
- Cigarettes and Other Tobacco Products (Production Supply and distribution) act 2003: prohibition of smoking in public places, selling to minors, and ban on sale of tobacco products within 100 yards of all educational institutions.
- Prevention of Food Adulteration Act mandates statutory warnings regarding harmful health effects for paan masala and chewing tobacco.
- **Higher Tax:** Under GST, there will be an additional cess charged on the tobacco-related products, over and above the GST charged at the rate of 28%.

Related Information

India is the second largest consumer and producer of tobacco-based products.

 Nearly one million tobacco-related deaths take place in India every year. The tobacco related health burden amounts to about one lakh crore rupees and government's earning from tobacco excise duty is only 17 % of health burden.

Impact of Tobacco

- On Health: Biological- It causes Non-communicable diseases (NCDs) like ischemic heart diseases, cancers, diabetes, and chronic respiratory diseases.
 - Psychological: Low emotional stability and risk taking behavior are more common in tobacco users. Existence of some mental disorders also increases the risk of tobacco use.
- Effects on New born: Maternal tobacco use during pregnancy and exposure of child to second hand smoke in childhood is known to be a risk factor for various conditions like increased risk of allergies, high BP in childhood, increased likelihood of obesity, stunted growth, poor lung function, etc.
- **Social and Environmental:** Parental influence, lower education status, attraction towards role models, cultural practices, etc.
- On Wealth: The total costs attributable to tobacco use as on 2011 was estimated to be 12% more than the combined state and central government expenditure on healthcare in that year, and 1.16% of India's GDP.
- High percentage of chewable tobacco used by economically weaker section.
- According to Global Youth Tobacco Survey, in 2009, nearly 15% Children in India in the 13-15 age group used some form of tobacco.
- According to the Global Adult Tobacco Survey 2016-17 62% of cigarette smokers and 54% of bidi smokers had thought of quitting because of the 85% warnings on the packets.
- The health warnings health knowledge about the harms of tobacco, prevent relapse in former smokers and deter youth and adults from initiating use and experimentation.
- Recently the government also asked the Supreme court to classify tobacco as "res extra commercium", which is a Latin phrase for "outside commerce"
 - Tobacco labelling rules have been consistently challenged by industry. This move is part of the government's effort to regulate the tobacco companies looking to challenge tough regulations pertaining to the industry.

7.6. FIRST INDIA-DESIGNED VACCINE PASSED WHO TEST

Why in news?

Recently, India made
ROTAVAC vaccine
and Typbar Typhoid
Conjugate Vaccine
received WHO prequalification.

Rotavirus

- It is the most **common cause of diarrhoea** among infants and young children.
- It usually transmitted by **the faecal-oral route** and infects and damages the cells in **the** small intestines and causes gastroenteritis.

Typhoid

- It is caused by the bacteria Salmonella typhi.
- The infection is often passed on through **contaminated food and drinking water**, and it is more prevalent in places where hand washing is less frequent.

ROTAVAC Vacccine

- It is a low cost vaccine developed by Bharat Biotech Limited under an innovative PPP model involving Ministry of Science and Technology, institutions of the US Government and various NGOs.
- It has been included in India's Universal Immunization Program in 2016.

Typbar Typhoid Conjugate Vaccine

 It is the world's first typhoid vaccine, developed by Bharat Biotech limited that can be given to infants older than six months.
 It and confers long-term protection against typhoid fever.

Significance of Pre-Qualification

the country.

Accelerate availability of the vaccine to the developing countries with highest burden of diseases including those in Africa and South America.

Necessary for United Nation

agencies like UNICEF, the Pan

American Health Organization

(PAHO) and GAVI (a vaccine

health and well-being etc.

The National Technical Advisory Group on Immunization (NTAGI), recently gave the green signal to the introduction of the Human papillomavirus vaccine (HPV) in the Universal Immunization Programme.

India has one of the world's highest burdens of HPV-related cancer. It is the second leading cause of cancer deaths among women in India with HPV being the most common cause of cervical cancer.

alliance) to purchase the vaccine in partnership with developing countries.

It will also promote efforts to meet the Sustainable Development Goal to reduce poverty, hunger, good

7.7. INDIA MISSES KALA AZAR ELIMINATION DEADLINE

Why in news?

• India has missed the deadline (December 2017) of eliminating Kala Azar (Black fever or Dum Dum fever).

Background

- In 2017 budget speech, the Finance Minister had announced for elimination (reducing to less than one case in 10,000) of Kala Azar (black fever or dumdum fever) by 2017. It was also reiterated by the National health policy 2017.
- In 2014, the government launched the **Kala Azar Elimination Programme** with support from various international agencies.
- Efforts to eliminate the disease have been taken through programmes like **National Vector Borne Disease Control Programme**.
- However, endemic blocks have increased from 61 to 68 in 17 districts of Bihar and Jharkhand.

Universal Immunisation Program (UIP):

- It aims to protect children from life threatening conditions by providing vaccination.
- It is 100% funded by central government and covers all children and pregnant women.

Objectives

- Rapidly increase immunization coverage
- Improve the quality of services

Increases the scope for credible industrial, scientific and regulatory processes to develop more vaccines in

- Establish a reliable cold chain system to the health facility level
- Introduce a district-wise system for monitoring of performance
- Achieve self-sufficiency in vaccine production

Vaccines under UIP

The program now consists of **vaccination for 12 diseases**- tuberculosis, diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, measles, Hepatitis B, Diarrhoea, Japanese Encephalitis, rubella, Pneumonia (Heamophilus Influenza Type B) and Pneumococcal diseases (Pneumococcal Pneumonia and Meningitis).

Mission Indradhanush

- Launched in 2014, by the Ministry of Health and Family Welfare, it targets all children under the age of two years and pregnant women with all available vaccines.
- The Mission Indradhanush aims to cover all those children by 2020 who are either unvaccinated, or are partially vaccinated against vaccine preventable diseases.

Reason for rise in endemic blocks

- Endemic blocks mainly have houses made up of wooden material making it difficult to eliminate the vector dwells in the wooden which structures.
- Secondly, even after treatment of Kala Azar patients, it is the Post Kala-Azar Dermal Leishmaniasis cases which become a source for future Kala Azar cases.
- Some experts suggest that active case findings rather than an actual increase in the disease is the reason behind the increase in number of endemic blocks.
- **Uneven implementation** of sand fly control measures like indoor residual spraying in houses in endemic areas is also one the reason for failure to eliminate the disease

National Vector Borne Disease Control Programme (NVBDCP)

It is an umbrella programme for prevention and control of vector borne diseases and is subsumed under National Health Mission.

WHAT is KALA-AZAR



- A slow progressing indigenous disease
- Caused by protozoan parasite of genus Leishmania
- The parasite primarily infects reticuloendothelial system The condition when the parasite invades skin cells, stays and develops and shows dermal lesions is known as Post Kala-Azar **Dermal Leishmaniasis**
- In India, Leishmania donovani is the only parasite causing the disease
- It is second-largest parasitic killer in world after Malaria.
- India accounts for half the global burden of Kala-azar disease.
- West Bengal, Bihar, Jharkhand and eastern Uttar Pradesh are the endemic districts where the disease is prevalent.

SIGNS & SYMPTOMS

- Recurrent fever Loss of appetite
- Spleen enlargement Anaemia
- Weakness

TRANSMISSION

- Female sandfly of genus Phlebotomus argentipes is only known vector of kala-azar in India
- Indian kala-azar has a unique epidemiological feature of being anthroponotic
- Directorate of NVBDCP is the central nodal agency for the prevention and control of vector borne diseases
- Vector borne diseases that are being targeted:
 - 1. Malaria
 - 2. Dengue
 - 3. Lymphatic Filariasis
 - 4. Kala-azar
 - 5. Japanese Encephalitis
 - 6. Chikungunya

7.8. FOOD POISONING

Why in news?

Recent data released by the Union Health Ministry's Integrated Disease Surveillance Programme (IDSP) has indicated that food poisoning is one of the most common outbreaks reported in 2017.

About food poisoning

- Food poisoning outbreaks have increased from 50 in 2008 to 242 in 2017.
- It is caused by eating contaminated food. Infectious organisms including bacteria, viruses and parasites or their toxins.
- It is high in places where food is cooked in bulk, such as canteens, hostels and wedding venues.
- Acute diarrhoeal disease and food poisoning have been common outbreaks since 2008. This is followed by chickenpox and measles.

About Integrated Diseases Surveillance Program (IDSP)

- It is a disease surveillance scheme launched in 2004 under the Ministry of Health and Family Affairs in India, assisted by the World Bank.
- The scheme seeks to set up a Central Disease Surveillance Unit and a State Surveillance Unit in each State where data is collected and analyzed
- An early warning system has been put into place in order to take timely preventive steps.
- Under IDSP data is collected on epidemic prone diseases on weekly basis.
- Whenever there is a rising trend of illnesses in any area, it is investigated by the Rapid Response Teams (RRT) to diagnose and control the outbreak.
- The program covers both communicable as well as non-communicable diseases and there is focus on inter sectoral co-ordination for zoonotic diseases.

7.9. INDIA'S SPENDING ON R&D

Background

As per a study of the National Science Technology Management Information System (NSTMIS), India's gross research spending has consistently been increasing over the years.

Details

- While India spent 0.69 per cent of its GDP on R&D in 2014-15, Brazil, Russia, China and South Africa spent 1.24%, 1.19%, 2.05 % and 0.73% respectively while USA (2.8%) and S Korea (4.2%) spend much more.
- India topped the list with regard to the government's participation in R&D but hit the bottom in terms of participation of institutions of higher education.
- The central government accounted 45.1 per cent expenditure, followed by private sector industries (38.1 per cent), state governments (7.4 per cent), higher education sector (3.9 per cent) and the public sector industries (5.5 per cent).
- Women's participation in extra mural projects has increased significantly from a mere 13% in 2000-01 to 29 % in 2014-15.
- The country's share in global

Recently Ministry of Science & Technology announced four new schemes to promote young scientists and researchers in the country.

About the schemes

Teacher Associateship for Research Excellence (TARE) Scheme

- It aims to tap the latent potential of faculty working in state universities, colleges and private academic institutions who are well trained but have difficulty in pursuing their research due to reasons like lack of facilities, funding and guidance.
- The scheme facilitates mobility of such faculty members to carryout research in well-established public funded institution such as IITs, IISc, NITs, CSIR, ICAR, etc. Up to 500 TAs (Teacher Associates) will be supported under this scheme.

Overseas Visiting Doctoral Fellowship (OVDF)

- This has been instituted for enhancing the international mobility of Indian research students with potential to create a talented pool of globally trained manpower.
- It offers opportunities for up to 100 PhD students admitted in the Indian institutions for gaining exposure and training in overseas universities for period up to 12 months during their doctoral

Distinguished Investigator Award (DIA)

- This has been initiated to recognize and reward Principal Investigators (PIs) of Science and Engineering Research Board/Department of Science and Technology projects who have performed remarkably well.
- It is a one-time career award devised to specifically cater to the younger scientists who have not received any other prestigious awards or fellowships.

Augmenting Writing Skills for Articulating Research (AWSAR) scheme

- This has been initiated to encourage, empower and endow popular science writing through newspapers, magazines, blogs, social media, etc. by young PhD Scholars.
- The scheme aims to tap the tremendous potential in the country to popularize & communicate science and also to inculcate scientific temperament in the masses.

research publications increased from 2.2 per cent in 2000 to 3.7 per cent in 2013 while the number of researchers per million population increased from 110 in 2000 to 218 in 2015.

Analysis

- The lack of focus on R&D is costing India dearly with even home grown companies such as the Tatas choosing to invest millions in globally recognised institutions such as Harvard and Yale for top-end research instead of betting on India.
- Lack of quality faculty and low research capability is plaguing the Indian research scenario. Therefore, the first step should be a public-private initiative to launch faculty development programmes in leading universities in India and focus on more outcome-based research.
- Additionally, industry should participate in developing the entrepreneurial culture in India by setting up incubation centres and research parks for innovative research.
- Other steps may include investing in educating its youth in science and mathematics, taking a more missiondriven approach in areas such as dark matter, genomics, etc.

7.10. WOMEN SET TO BE INDUCTED IN TERRITORIAL ARMY

Why in news?

Delhi High court has paved way for induction of women into TA units by quashing Centre's notification barring the same.

Context

- Section 6 of the Territorial Army Act,1948 lays down rules on who is eligible for enrolment in the Territorial Army, which is also known as the second line of defense after the regular Army.
- As per the rules, TA recruited only gainfully employed men and thus barring women's entry in infantry units in army.
- A PIL under article 226 of constitution (power of HCs to issue writs) was filed in Delhi High Court claiming that allowing women to join amounted "institutionalized discrimination" and went against the Constitution's spirit.

Observations of Delhi High Court

The two judge High Court bench held that policy of restriction on enrolment of women is ultra vires of Articles 14, 15, 16 and 19(1)(g) of the Constitution of India.

It also held that "any person" in Section 6 shall include both men and women.

Inclusion of women in Defence forces

Pros

- Ability is not gender specific- Women soldiers have found to be equally capable as men after proper training. Also, in the 21st century battles aren't always fought with swords and guns.
- Influx of applicants leading to a bigger and better pool of candidates.
- **Effectiveness** The blanket restriction for women limits the ability of commanders in theater to pick the most capable person for the job.

WHAT IS TERRITORIAL ARMY?

- The Territorial Army (TA) is a voluntary force of civilians donning the uniform for a few months every year without joining the regular Army
- Those interested can join the TA from the age of 18-42 years
- One of the eligibility criteria is that an individual must be well-settled and employed
- The maximum rank reached is that of a Brigadier
- The TA also has departmental units such as Railways, IOC. ONGC etc
- The TA was raised by the British in 1920 with two wings, one for Europeans and Anglo-Indians, the other for Indian volunteers
- Of Late, the TA has become a way of lateral entry with officers being take for full-time employment
- It is a part of the regular Army and assists it in civil administration, maintenance of essential services and so on

In 1948 the Territorial Army Act was passed

Central government has also sanctioned the raising of a Territorial Army (TA) battalion to clean Ganga.

- The initiative has been taken under National Mission to clean Ganga aiming to clean it by 2020.
- The task force comprises ex-servicemen, and will be based in Allahabad, Uttar Pradesh.
- The funding for the initiative has been provided by Ministry of Water Resources, River Development and Ganga Rejuvenation.
- Nine Ecological Task Force (ETF) battalions of TA have been raised to execute specific environment-related projects as part of Namami Gange Programme till now.
- Some key functions of the task force are going to be:
 - To manage public awareness campaigns
 - Patrol sensitive river areas for the protection of biodiversity
 - Keep a tab on the river pollution levels
 - Assist the government in enforcing pollution control measures,
 - Support local civil administration and police in managing the ghats and
 - Provide support and assistance if and when there is a flood or natural disaster in the region.

Cons

- **Physical incapability** for combat is the most common example provided against women joining army.
- **Abuse by** colleagues and, if captured, by the enemy are conditions that lays down an ethical conundrum regarding the issue.
- The traditional mindset and belief where men have problems and issues accepting orders from women are yet another hindrance in their acceptance in defence positions.

Current Status of women in Defence forces:

- The Indian Army, the Indian Navy and the IAF allow women in various courses but till recently restricted their entry into combat roles.
- Indian Airforce and Indian Navy in 2015 and Indian Army in 2017 allowed women in combat roles taking cue from various western countries and further instil gender parity in Defence forces in India.

7.11. PROJECT STREE SWABHIMAN

Why in news

Recently, Ministry of Electronics and Information technology (MeITY) announced a project Stree Swabhiman.

About the project

- It aims to create a sustainable model for providing adolescent girls and women an access to affordable sanitary products in rural areas.
- According to health ministry data, only 12% of India's 355 million women use sanitary

Common Services Centers (CSCs) are ICT enabled kiosks with broadband connectivity for delivery of essential public utility services, social welfare schemes, healthcare, financial, education and agricultural services, apart from host of B2C services to citizens in rural and remote areas of the country.

Other related schemes

Menstrual Hygiene Scheme (MHS)

- Being implemented by Health Ministry as part of Rashtriya Kishor Swasthya Karyakram.
- It provides subsidized sanitary napkins among adolescent girls residing primarily in rural areas.
- Aim: to reach 15 million girls aged 10 to 19 and in 152 districts across 20 states

Menstrual Hygiene Management National Guidelines, 2015

- Issued by Ministry of Drinking Water & Sanitation.
- It covers the aspects of providing adolescent girls with menstrual hygiene management choices and menstruation hygiene management infrastructure in schools and the safe disposal of menstrual waste.

Rashtriya Madhyamik Shiksha Abhiyan

- Under this centrally sponsored scheme of **Ministry of Human Resource Development,** sanitary pads are provided in schools and girls hostels.
- napkins while remaining resort to unsanitary alternatives due to which 70% of these women suffers from the incidents of reproductive tract infection.
- Under this project, sanitary napkin micro manufacturing units (semi-automatic and manual process production unit) are being set up at CSCs across India, particularly those operated by women entrepreneurs.
- The product will be sold under local brand name and marketed by village level entrepreneurs.
- Each facility will **employ 8-10 women** and **educate** women of their society to overcome this social taboo.
- It also has a menstrual hygiene related **awareness generation component** and is also expected reduce dropped out rates in girls on reaching puberty.

7.12. ONLINE PORTALS 'NARI' AND 'E-SAMVAAD'

Why in news?

The government has launched two online portals- 'NARI' and 'e-Samvaad'.

NARI

• Due to scattered information on various women centric schemes/legislations there is a lack of awareness among people regarding the same. To address this problem government launched NARI portal as a single window access to information and services.

• It is a Mission Mode Project under the National E-Governance Plan (designed and developed by National Informatics Centre (NIC), Ministry of Electronics & Information Technology).

e-samvaad Portal

- It is a **platform for NGOs and civil society** to **interact** with the Ministry of Women and Child Development (MWCD) by providing their feedback, suggestions, put up grievances, share best practices etc.
- This will help in formulation of effective policies and measures for welfare of women and children.

7.13. HABITAT RIGHTS TO PVTGS

Why in news?

Mankidia, one of the 13 Particularly Vulnerable Tribal Groups (PVTG) in Odisha, were recently denied habitat rights inside the Similipal Tiger Reserve (STR) under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

Details

- Mankidia is a marginalised group that critically depends on making rope / bags with siali fibre that's richly available in Similipal Tiger Reseve.
- In Odisha, processes have been initiated for according habitat rights to PVTGs such as Bondas, Didai, Hill Khadia and Paudi Bhuyan.
- Had it been approved, the Mankidia would have been the first PVTG to have habitat rights.
- Mankidia would now be deprived of the non-timber forest produce for their livelihood.

Reasons for not providing rights

- The State Forest Department has objected on grounds that tribals could be attacked by wild animals.
- Further, habitat rights would create barriers for free movement of tigers and other animals.
- The District Level Committee (DLC) advocated that habitat rights to PVTG should be confined to STR's buffer zone.

Criticisms of the move

- According to FRA activists there is no record of people from Mankidia tribe facing wildlife attack.
- "'Habitat' as defined under Section 2(h) of the FRA (Forest Rights Act) includes the area comprising the
 customary habitat and such other habitats in reserved forests and protected forests of primitive tribal
 groups and pre-agricultural communities and other forest dwelling Scheduled Tribes".

About Particularly Vulnerable Tribal Groups (PVTGs)

- In 1973, the **Dhebar Commission** created Primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal groups. They were later renamed as PVTG.
- States/UTs submit proposals to the Central Ministry of Tribal Welfare for identification of PVTGs.
- Some basic characteristics of PVTGs are:
 - Mostly homogenous
 - o A small population
 - o Relatively physically isolated
 - o Primitive Social institutions
 - Absence of written language
 - Relatively simple technology and a slower rate of change
 - Their livelihood depends on food gathering, Non Timber Forest Produce, hunting, livestock rearing, shifting cultivation and artisan works.

What is the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006?

- It came into force in 2006. The Nodal Ministry for the Act is Ministry of Tribal Affairs.
- It has been enacted to recognize and vest the forest rights and occupation of forest land in forest dwelling Scheduled Tribes and other traditional forest dwellers, who have been residing in such forests for generations, but whose rights could not be recorded.
- It not only recognizes the rights to hold and live in the forest land under the individual or common occupation for habitation or for self-cultivation for livelihood, but also grants several other rights to ensure their control over forest resources.
- The Act also provides for diversion of forest land for public utility facilities managed by the Government, such as schools, dispensaries, fair price shops, electricity and telecommunication lines, water tanks, etc. with the recommendation of Gram Sabhas.

7.14. REPORT OF NATIONAL COMMISSION FOR NOMADIC TRIBES

Why in news?

Recently the National Commission for Nomadic Tribes has submitted its report viz "Voices of the Denotified, Nomadic & Semi-Nomadic Tribes".

Background

• Government of India has constituted a **National Commission for Denotified, Nomadic & Semi-Nomadic Tribes** with a mandate to identify and prepare a state-wise list of DNT/NT, apart from assessing the status of their inclusion in SC/ST/OBC, identification of areas where they are densely populated, reviewing the progress of development and suggesting appropriate measures for their upliftment.

Who are Denotified tribes?

- The people, who were notified as Criminal Tribes during British rule and were denotified after independence in 1952, have been known as denotified tribes, based on the **report of Ananthasayanam Ayyangar** in 1949-50. There are also many nomadic tribes who were part of these DNT communities.
- "These communities were the most oppressed" although they did not undergo the social untouchability as in the case of caste.

Problems faced by these tribes:

- People of these communities continue to be stereotyped. A large number of them have been labeled excriminal tribes.
- They also face alienation and economic hardships. Most of their traditional occupations such as snake charming, street acrobatics and performing with animals have been notified as criminal activity making it difficult for them to earn a livelihood.
- Many of the denotified, nomadic and semi-nomadic tribes are spread among SC/ST/OBC but are still not
 classified anywhere and have no access to socioeconomic benefits whether education, health, housing or
 otherwise.
- **Grievances of these groups** include food, drinking water, sanitation, education, health, housing, poor infrastructure, etc. Many also complain about not getting caste certificates, not having ration cards, voter ID cards, aadhaar cards, etc.
- There are many **anomalies in terms of identification** of these communities, from state to state. There is a lack of awareness about these tribes and about authority looking after their grievances.
- As a result of all these problems many communities are facing decline in population.

Recommendations of the report

- Since basic census data is not available on these tribes/communities there is a need to undertake a socioeconomic survey through some reputed social science institutes.
- The Centre should carve out sub-categories DNT-SC, DNT-ST and DNT-OBC, with dedicated sub-quota for them. While sub-categorisation of SCs and STs may prove complicated, it can be done immediately among the OBCs since the Centre has already formed a commission headed by Justice Rohini Kumar to sub-divide the central list of OBCs according to the developmental status of member communities.

Habitual Offenders Act of 1952

It recommended suitable steps to be taken for amelioration of the pitiable conditions of the Criminal Tribes rather than stigmatising them as criminals. As a result, the Criminal Tribes Act of 1871 was repealed in 1952 and the Habitual Offenders Act was enacted in its place.

- A **permanent commission** may be constituted for the purpose which may take care of these communities/tribes independently on regular basis.
- Seeking "destigmatisation" of denotified tribes, the panel has recommended that the Centre **repeal the Habitual Offenders Act of 1952.**

Way forward

Some suggestions for upliftment of these tribes include:

- Unification of DNT/NT in one category,
- Special DNT/NT economic plan in the budget,
- Housing facility, agricultural land, livelihood promotion,
- Facilities for education, health, protection of women,
- Protection from police harassment, abolition of child labour and bondedlabour, abolition of Habitual Offenders Act, etc.





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8. CULTURE

8.1. SANGRAI DANCE

Why in news?

Traditional Sangrai dance of Tripura was presented in Republic Day parade for the first time.

Details

- It is performed by the Mog tribal community on the occasion of Sangrai festival during the month of Chaitra (in April) of the Bengali calendar year. The day is celebrated to welcome the new year.
- The Mog are the Arakanese descendants who live in the Indian state of **Tripura**.

Related information

- Maharashtra won the best tableau award on Republic Day Parade which was based on Chhatrapati Shivaji Maharaj's coronation who introduced Ashtapradhan mandal (Council of Eight Ministers) consisting of
 - Peshwa (chief minister),
 - Amatya or majumdar (finance),
 - Sachiv or shuru nawis(correspondence),
 - Sumant or dabir(foreign minister)
 - Senapati or san-i-naubat (recruitment, training and discipline of the
 - Mantri or waqia nawis: (personal safety of the king)
 - Nyayadhish (administration of justice)
 - Dhanadhyaksha or the pundit rao (looking after charitable work)
- Himachal Pradesh's tableau depicted a model of Kye Gompa, a Tibetan Buddhist monastery established in the 11th century located in the Spiti Valley.
- Chhattisgarh's displayed artists performing dance based on Kalidasa's Meghadootam (a lyric poem which tells the story of a yaksha who has been exiled from his kingdom).
- Mogs are Buddhists and have close affinity with Burmese Buddhism in all socio-cultural and religious aspects. They are dependent on Jhum Cultivation.
- Their language is grouped under Tibeto-Chinese family which is also linked with Assam-Burmese section of language.

8.2. BATTLE OF KOREGAON

Why in news?

Recently, on the 200th anniversary of the Battle of Koregaon clashes broke out in Maharastra.

Battle of Koregaon

- It was the last of the Anglo-Maratha battle that took place on 1 January 1818 in Bhima, Koregaon between the troops of Maratha Ruler Baji Rao Peshwa II and the British East India Company (EIC).
- In the battle the EIC represented by majority of

- Mahars are a caste cluster living maily Maharashtra and adjoining states.
- The Mahars, though untouchables, had been valued for their military skills for centuries and formed a significant portion of Shivaji's army.
- However under the Peshwas they were ill-treated and lost their military glory.
- The Mahar were unified by B R Ambedkar, who urged them to militant political consciousness and to great educational improvement.
- Mahar soldiers successfully resisted Peshwa troops in which Peshwa lost 600 of his soldiers after which he withdrew and gave up plans to attack Pune.
- British constructed a tower to commemorate victory with an inscription stating, "Accomplished one of the proudest triumphs of the British Army in the East."
- The Mahars celebrate this day as the day when they regained their former status of military glory.

8.3. MEDARAM'S JATARA

Why in news?

Central government is likely to declare Medaram's Sammakka-Sarakka/Saralamma Jatara a national festival this year.

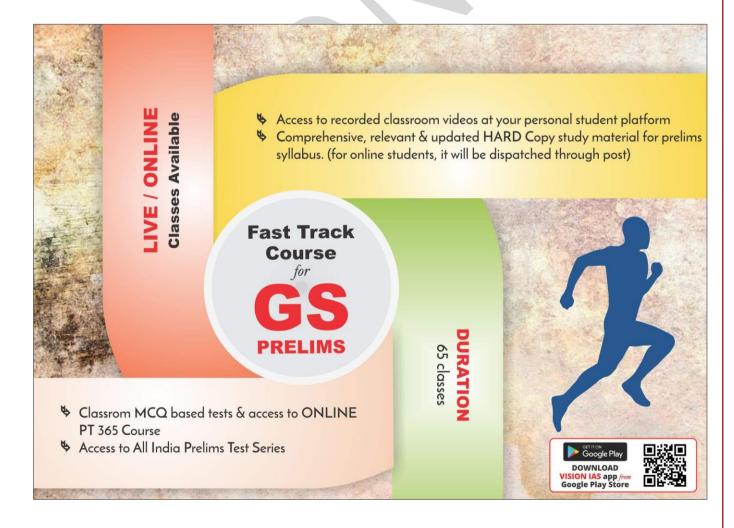
Medaram is a remote place in the Eturnagaram Wildlife Sanctuary, a part of Dandakaranya, the largest surviving forest belt in the Deccan.

About the Festival

- It is held bi-annually in Medaram village, Telegana to honour the twin goddesses Sammakka and her daughter Sarakka.
- It is held by forest dwelling **Koya Tribe** of the region and is the biggest tribal festival in Asia attracting non-adivasis as well.

Significance of National Tag

- Apart from getting recognition, national tag would also make Medaram eligible for central funds.
- Once declared a national festival, Jatara can be considered for 'intangible cultural heritage of humanity' tag
 of UNESCO.
- Union government had in 2015 declared **Vanaj**, a tribal dance and music festival, as national festival.



9. ETHICS

9.1. ETHICS AND CLINICAL TRIALS

Recently an RTI response, received by NGO Swasthya Adhikar Manch, revealed that a total of 24,117 cases of deaths and SAEs due to clinical trials occurred between January 2005 and September 2016. The compensation has been given to a very small fraction of these people. This situation points out toward the crisis in clinical trials in India

There are various established ethical principles to be followed during the conduct of such trials such as

- Fair Subject selection People should be chosen in a way that minimizes risks and enhances benefits to individuals and society. They should appropriately represents the set of people who are going to use those medicines
- **Scientific validity** the study is designed with a clear scientific objective and using accepted principles, methods, and reliable practices.
- Informed consent The subjects should be informed of the purpose, method, risks and benefits.
- Respect for potential and enrolled subjects This includes respecting their privacy, their right to change of
 mind, right to information is some new and unusual findings are made, right of treatment of any side-effects
 due to the study etc.
- Other principles include favourable risk-benefit ratio and independent review.

Although clinical trials aim at improving human health and well-being by identifying better methods to treat, cure or prevent illnesses, yet various ethical issues are also associated with this process:

- **Emphasis on Utilitarian approach:** Here some people are exposed to risks and burdens for the benefit of society at large.
- **Absence of informed consent**: In 2009, an international NGO had launched a \$3.6 million human papillomavirus (HPV) trial in India and tested two vaccines on 16,000 tribal girls in Andhra Pradesh and Gujarat, apparently without informed consent from the girls' parents.
- Problem with ethics committee: Ethics committees are constituted to monitor the ongoing drug trials.
 However, it is often found that in most cases ethics committee is not constituted. Further people on such committees are not well trained nor these committees work independently and there are issues of conflict of interest
- **Commerce without morality:** Pharmaceutical companies focus on maximising profits through shoddy trials and instances have been found where there was no compensation paid to victims of bad trials
- Corruption: The Indian Parliamentary Committee, in its 59th report on family and healthcare, had
 established collusive nexus between drug manufacturers, some functionaries of regulatory bodies and some
 medical experts
- **Absence of Transparency and Accountability:** Results of trails are withheld by corporates. Also when things go wrong there is little regard given to the people on whom trial is conducted.
- **Exploiting vulnerabilities:** There is an over-representation of low-income groups among trial subjects. This shows that subjects are being chosen on the basis of their vulnerability and need of money rather than scientific reasons. At times, there is an element of coercion and non-voluntariness in their participation

Clinical trials are a necessity in times of rising number of diseases and growing need of better and effective drugs. However, it is equally important that such trials are better regulated with the patient or the subject at the center stage of all policy considerations in this respect. All the personnel involved in the process should be trained and qualified and have strong sense of ethics. The responsibilities should be fixed with all the aspects of study out in the public domain while keeping the principles of privacy and confidentiality of subjects intact.

10. MISCELLANEOUS

10.1. MAHARASHTRA'S PUBLIC CLOUD POLICY

Why in News?

Maharashtra became the first state to mandate its departments to shift their data storage onto the cloud.

Details

 Government departments currently have their own data storage facilities, which will now be handled out to the private sector. **Cloud Storage**- Cloud storage is a service model in which data is maintained, managed, backed up remotely and made available to users over a network (typically the Internet).

Digilocker Service- DigiLocker, a part of goverment's Digital India Initiative, to enable Indian citizens to store certain official documents on the cloud.

- Under the framework, government will make it mandatory for the data to be stored within the country.
- The state expects more investment through increase in the number of data centres and advantages like availability of uninterrupted power, presence of academia and talented human resources.

10.2. OPERATION DIGITAL BOARD

Why in News?

The Central Advisory Board of Education (CABE) recently passed a resolution to take steps towards
 Operation Digital Board.
 About Central Advisory Board of Education

About Operation Digital Board

 It aims to introduce digitally enabled class rooms to act as a necessary instructional tool (e.g. It is the highest and the most important advisory body to central and

- State Government in the field of Education working since 1935.

 It consists of nominated members (representing various interests)
- and elected members (MP) of both the houses.
- smart board, audio-visual videos, education provider like Educomp, Tata Class Edge etc.) to improve the quality of education with interesting learning experience.
- It will be launched with the involvement of the Central and State governments, Council of Scientific & Industrial Research (CSIR) and community support.

10.3. SFOORTI APP

- Ministry of Railways has launched the Smart Freight Optimisation and Real Time Information (SFOORTI)
 Application
- It helps freight managers plan traffic flows and optimize freight operations through Freight Operation Information System Map View, a Geographic Information System (GIS) based monitoring and management tool.
- It can track both passenger and freight trains (loading and utilization) over Zones/Divisions/ Sections in single GIS View.

10.4. GI TAG FOR NILAMBUR TEAK

Why in news?

Recently, teak grown in Nilambur region was accorded Geographical Indication (GI) tag by the Geographical Indication (GI) Registry

Details

- It is also known as Malabar teak and the Mecca of Teak.
- It is the **first forest produce** to get GI tag.
- It is known for its durability, earthy colour and larger size.
- It exhibits high resistance to fungal decay and shows antioxidant properties making it ideal for usage in construction purposes like Buckingham Palace, the Kabba building in Mecca, the Titanic etc.

- It is also known for hydrophobicity and its oily nature.
- Teak also has the **highest capacity for carbon sequestration** among trees in India.

10.5. LIVEABILITY INDEX

Why in news?

 The Ministry of Housing and Urban Affairs has decided to bring out a liveability index of 116 cities with funding from World Bank

More about the index

- It ranks the cities in order of the quality of life offered by these 116 cities which includes 99 smart cities already identified, state capitals, and cities with 1 million-plus population
- Economist Intelligence Unit brings out an annual liveability index of cities across the world.
- Currently, the EIU's 'Global Liveability Ranking' for 140 cities includes only two Indian cities — Mumbai and Delhi.
- The index comprises of 79 parameters, including 57 Core Indicators and 22 Supporting Indicators, to measure various aspects determining the liveability of a city.
- The index gives different weightage to 4 aspects institutional (25%), social (25%), economic (5%), physical (45%).
- The Economist Intelligence Unit (EIU), in alliance with the IPSOS Research Private Limited and Athena Infonomics (India Pvt. Ltd.) are selected under World-Bank funded Capacity Building for Urban Development program for assessment

10.6. ANNIVERSARY OF INDIA'S FIRST NEWSPAPER

Why in New?

Recently the 238th anniversary of India's first newspaper, the Bengal Gazette, was celebrated.

Details

- Launched by James Augustus Hicky (on January 29, 1780).
- The newspaper was an **English language weekly** published in **Kolkata** and happened to be the first newspaper published in Asia as well but lasted only for two years.

