CURRENT AFFAIRS
DECEMBER 2017
Table of Contents

1. POLITY AND CONSTITUTION ___________ 4
   1.1. Mission Antyodaya ___________ 4
   1.2. Municipal Reforms ___________ 5
   1.3. Special Courts for Trying Politicians ___________ 7
   1.4. Section 29A of RPA ___________ 8
   1.5. Candidates Contesting from Two Seats ___________ 9
   1.6. Open Prisons ___________ 10
   1.7. Judicial Accountability & RTI Act ___________ 11
   1.8. Adultery Law to be Revisited ___________ 12
   1.9. Meghalaya’s Social Audit Law ___________ 13
   1.10. Schemes for North Eastern Region ___________ 13
   1.11. DBT in Power Sector ___________ 11
   1.12. Guidlines for Procuring Wind Power ___________ 20

2. INTERNATIONAL RELATIONS ___________ 15
   2.1. Indian Diaspora Largest in the World ___________ 15
   2.2. India Gets Entry into Wassenaar Arrangement ___________ 16
   2.3. The New US Security Strategy ___________ 17
   2.4. US Recognises Jerusalem as Capital of Israel ___________ 17
   2.5. International Maritime Organisation (IMO) ___________ 18
   2.6. International Solar Alliance ___________ 19
   2.7. Maldives and China ___________ 19
   2.8. US Withdraws from Global Compact on Migration ___________ 20
   2.9. Permanent Structured Cooperation on Defence (PESCO) ___________ 20

3. ECONOMY ___________ 21
   3.1. Strategy on Resource Efficiency ___________ 21
   3.2. WTO Ministerial Conference 11 ___________ 23
   3.3. Mid-Term Review of Foreign Trade Policy ___________ 25
   3.4. Financial Resolution and Deposit Insurance (FRDI) Bill 2017 ___________ 26
   3.5. RBI’s Financial Stability Report ___________ 28
   3.6. Consumer Protection Bill 2018 ___________ 29
   3.7. Contract Farming ___________ 30
   3.8. Fertilizer Sector ___________ 32
   3.9. Energy Access ___________ 33
   3.10. Methanol Economy ___________ 35
   3.11. DBT in Power Sector ___________ 36
   3.12. Guidelines for Procuring Wind Power ___________ 37
   3.13. Sustainable Rooftop Implementation for Solar Transfiguration of India (SRISTI) ___________ 38
   3.14. India Challenges China as World’s Biggest LPG Importer ___________ 39
   3.15. National Highway Investment Promotion Cell ___________ 40
   3.16. Plans for Backward Districts ___________ 41
   3.17. Ship-Breaking Industry ___________ 42
   3.18. Leather Industry ___________ 43
   3.19. Scheme for Capacity Building in Textiles Sector ___________ 44
   3.20. Pradhan Mantri Gram Sadak Yojana Review ___________ 44
   3.21. Financial System Stability Assessment (FSSA) and Financial Sector Assessment (FSA) ___________ 45

4. SECURITY ___________ 46
   4.1. NIC-CERT Setup ___________ 46
   4.2. Border protection Grid ___________ 46
   4.3. Endo-Atmospheric Interceptor Missile Successfully Test Fired ___________ 47
   4.4. INS Kalvari ___________ 47
   4.5. Military Exercises ___________ 48

5. ENVIRONMENT ___________ 49
   5.1. Delhi Air Pollution: Recent Initiatives ___________ 49
   5.1.1. Delhi Government Action Plan ___________ 49
   5.1.2. NGT Action Plan to Combat Delhi Air Pollution ___________ 49
   5.1.3. Centre’s “Air Action Plan - Abatement of Air Pollution in Delhi National Capital Region” ___________ 50
   5.1.4. Environment Ministry’s Regional Project to Tackle Stubble Burning ___________ 51
   5.2. Excessive Nitrogen in Atmosphere ___________ 51
   5.3. Electric Vehicle ___________ 53
   5.4. Environment Impact Assessment ___________ 54
   5.5. Global E-Waste Monitor ___________ 55
   5.6. China Launches Nation Carbon Market ___________ 56
   5.7. Invasive Alien Species ___________ 57
   5.8. Scheme for Protection of Majuli Island ___________ 58
   5.9. Birth Control for Animals ___________ 58
   5.10. Joint Tiger Census ___________ 59
   5.11. India Awarded by CITES ___________ 59
   5.12. Cyclone Ockhi ___________ 60
   5.13. Urban Fires ___________ 61
   5.14. Project ‘Blue Flag’ for Beach Clean-up ___________ 62
   5.15. Star Rating Protocol for Garbage Free Cities ___________ 63

6. SCIENCE AND TECHNOLOGY ___________ 64
   6.1. Brain Gain: Indian Scientists Returning to India ___________ 64
   6.2. Free Space Optical Communication ___________ 65
   6.3. Nasa’s Sofia Mission ___________ 65
   6.4. New Matter ‘Excitonium’ Discovered ___________ 66
   6.5. Eminid Meteor Shower ___________ 66
   6.6. ITCOOCEAN ___________ 66

7. SOCIAL ___________ 68
   7.2. National Nutrition Mission ___________ 69
   7.3. National Strategic Plan (2017-24) & Mission Sampark ___________ 70
   7.5. MGNREGS Assessment ___________ 73
   7.6. Ganga Gram Project ___________ 73
   7.7. Scheme for Inter-Caste Marriages ___________ 74
1. POLITY AND CONSTITUTION

1.1. MISSION ANTYODAYA

Why in News?

Department of Rural Development released the ranking of Gram Panchayats under Mission Antyodaya.

Context

- **Article 243G of the Indian Constitution** mandates preparation of plans for economic development and social justice by Panchayats and through this process Panchayats are expected to evolve into institutions of local self-governance.
- However, due to multiple layers of planning, administration and resource allocation to tackle deprivations, the efforts are often dispersed in time and space, leading to suboptimal results.
- **Variance in selection criteria** across schemes as well as spatial and temporal mismatch in supporting the same individual/household through government scheme results in different schemes targeting different individuals/households resulting in under-utilization of capacity and sub-optimal outcomes.
- Further, despite substantial public investment being made for strengthening rural economy and livelihoods base of the poor; due to **multidimensionality of poverty**, there is a need to optimize efforts through inter-sectoral approach.
- Hence, it is necessary to develop a model framework along with enhanced financial allocation based on convergence, accountability and measurable outcomes to ensure that the resources are effectively spent in providing ‘sustainable livelihoods for every deprived household’.

**Importance of GP level planning**

- It captures felt local needs and provides better appreciation for local potential and ensures easy access to resources, entitlements and services.
- It provides space for integration of people’s knowledge and wisdom into local development efforts.
- It responds to differential needs of different groups while mobilizing all the sections and encourages their participation in the local governance.
- It helps to forge better bond between the panchayats and local citizens while ensuring responsive governance.
- It improves overall service delivery and motivates volunteerism.

**Example of Convergence of schemes**-

- Dept. of Rural Development’s **MNREGA** for building physical assets, & **DAY-NRLM** to create social capital for livelihood promotion.
- Ministry of Tribal Affairs approved **Minimum support price** for non-timber forest produce to help tribal people who, under **DAY-NRLM**, collectively coordinate the procurement and payment process.
Framework for Implementation for Mission Antyodaya

- The framework makes use of Information & Communication Technology to ensure that the benefits reach those who are most deserving as per SECC Data.
- Through a robust Management Information System linked to schemes databases, it would be possible to ensure end-to-end targeting against defined set of indicators to measure progress against the base line.
- Over 25 Departments and ministries of central and state governments will be participating in this mission.
- The data from different schemes would be put in public domain for complete transparency.
- The states have selected Gram Panchayats (GPs)/clusters which are either GPs with achievements like ODF, crime/dispute free GPs award winning GPs, or are covered under other schemes.

Key Outcomes envisaged

- Strong infrastructure base for selected GPs/clusters through prioritised implementation of schemes in line with the GPDPs/cluster development plans.
- Effective social capital promoting participatory planning and implementation of the schemes engaging wide range of stakeholders at GP/cluster.
- Enhanced economic opportunities through diversified livelihoods including non-farm sector, skillling of rural youth and women, development of value chains and promotion of enterprise.
- Strengthened democratic processes through capacity building of PRIs, public disclosures, GP level formal and social accountability measures such as social audit.

1.2. MUNICIPAL REFORMS

Why in News?

The Union ministry of housing and urban affairs has prepared a comprehensive road map for municipal reforms.
Background

- Beginning with the Jawaharlal Nehru National Urban Renewal Mission (JnNURM) (2005), Urban Local Bodies (ULBs) in India have received attention from both Central & State governments for improving their infrastructure and service delivery.
- During 2015-17, various basic reforms were undertaken in 500 cities under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) like-
  o 104 cities in 14 states collected more than 90% of user charges,
  o 21 states have established municipal cadres,
  o 256 cities started offering online citizen services,
  o 21 states established state finance commissions, and
  o 363 cities have completed credit rating.
- The 14th Finance Commission also stipulated that a detailed procedure for the disbursal of the Performance Grant to ULBs based on various reforms in areas like accounting, auditing, reporting, etc.

Challenges to Urban Governance

- Financial paucity- Their chief sources of income are the varied types of taxes, most of which is levied by the union and state governments and, the taxes collected by the urban bodies are not sufficient to cover the expenses of the services provided.
- Corruption- The administrative machinery, at the disposal of these local bodies is insufficient and ineffective. The staff which is often underpaid indulges in corrupt practices which lead to loss of income.
- Excessive State Control- The state governments have the power to supersede and dissolve municipal bodies under certain circumstances. Further, state governments have powers like-
  o They approve municipal budget (except that of corporation).
  o Even the modified local tax structure needs government’s prior approval and later ratification.
  o Control through accounting and audit system, etc.
- Unplanned urbanization- The municipal services have failed to cope with the increasing needs of the population, both qualitatively and quantitatively. The situation is worsening because the rural influx in town and cities has increasingly converted them in ghettos.
- Multiplicity of Agencies- Usually works are not well allocated among different agencies which causes overlap of authority and responsibility. This further leads to diffused accountability.
- Dilution of Efforts- Due to multiple layers of planning, administration and resource allocation to tackle deprivations, the efforts are often dispersed in time and space, leading to suboptimal results.
- Headed by bureaucrats- The single purpose agencies are all dominated by bureaucrats, which goes against the basic philosophy of local government. The people’s representatives have a secondary role to play.
- Substandard Personnel- Urban government increasingly needs professional services of experts.
- Land titling in urban areas- A study has reported that most, over 90% by one estimate, of the land titles in India are ‘unclear’ and land market distortions and unclear land titles cost India around 1.3% of gross domestic product.
- Low level of People’s Participation- People’s apathy towards participating in the governance system pushes such institutions into a state of complacency and irresponsibility.
- Ecological challenges- The growth of population and industries presents an unprecedented challenge of ecological degradation and pollution of water, air and land.

About AMRUT-

- It focuses at transforming 500 cities and towns into efficient urban living spaces over a period of five years.
- It follows a project oriented development approach in contrast to the area based approach of Smart Cities Mission.
- It is a centrally sponsored scheme with 80% budgetary support from the Centre.
- It aims to:
  o ensure that every household has access to a tap with assured supply of water and a sewerage connection;
  o increase the amenity value of cities by developing greenery and well maintained open spaces (e.g. parks); &
  o reduce pollution by switching to public transport or constructing facilities for non-motorized transport (e.g. walking and cycling).

Trust and verify model

- In the current verify and trust model, cities generally inspect first and give approvals later which results in time delays and cost overruns, and opens up opportunities for rent seeking.
- Inverting this process gives us the trust and verify process in which permission is issued first and inspection taken up later, as all the required documents are already submitted online.
What is Criminalization in Politics?
When politics or political power is used by self-interest seeking persons for pecuniary gains or various other advantages such as to get special position in administration or to rise to the higher stage of administration which is normally not feasible.

Important Data (ADR)- (2014 Lok Sabha elections)
- Out of the 542 winners analysed, 185 (34%) winners have declared criminal cases against themselves.
- 112 (21%) winners have declared serious criminal cases including cases related to murder, attempt to murder, communal disharmony, kidnapping, crimes against women etc.
- The chances of winning for a candidate with criminal cases in the elections are 13% whereas for a candidate with a clean record it is 5%.

Impact of Criminalization
- The law-breakers get elected as law-makers: The people who are being tried for various offences are given the opportunity to make laws for the whole country, which undermines the sanctity of the Parliament.
- Loss of public faith in Judicial machinery: It is apparent that those with political influence take advantage of their power by delaying hearings, obtaining repeated adjournments and filing innumerable interlocutory petitions to stall any meaningful progress. This questions the credibility of the judiciary.
- Politics dominated by muscle and money power: Where the rule of law is weakly enforced and social divisions are rampant, a candidate’s criminal reputation could be perceived as an asset. This brings in the culture of muscle and money power in the politics.
• Affects the efficiency of the parliament - People with such tainted backgrounds have been seen to disrupt the functioning of the Parliament, affecting its efficiency in the long run.

• Self-perpetuating - Since the parties focus on winnability of the candidate (also hampering the inner party democracy) they tend to include more and more influential elements. Thus, criminalization of politics perpetuates itself and deteriorates the overall electoral culture.

Analysis

• The decision of the higher judiciary to establish Special Courts for politicians is one with good intention. It has the potential of ensuring speedy justice in cases involving influential politicians, which otherwise takes years to deliver. Also, it would be primarily in their own interest to clear their names quickly, lest their candidature be tainted.

• The time bound nature of the new scheme will also provide better information to voters about their representatives.

• However, creating a court for a class of people such as politicians is discriminatory. Also, such a step would question the credibility of the regular courts, as it would seem that justice could not be delivered with regular means.

• Another matter of concern is that such special courts are susceptible to having their verdicts overturned on appeal.

• Already multiple experiments with fast track courts have not materially changed the quality of justice delivery in India.

1.4. SECTION 29A OF RPA

Why in News?
The Supreme Court has recently decided to examine the powers of Election Commission in terms of disqualifying convicted persons from forming political parties or becoming office-bearer of a party.

About Section-29A

• Section 29A of Representation of People’s Act, 1951, lays down various provisions in regards to the registration and recognition of political parties in India.

• Before its introduction, in 1988, the process was fully regulated by the Election Symbols (Reservation and Allotment) Order, 1968 which is operated by the Election Commission.

• Under the Symbols Order, an association needed to achieve tangible proof of 1% of the valid votes to be secured by applicant party for registration.

Issues Raised

• The Goswami Committee (1990), had shed light on various issues related to the section -
Now any association to be registered as a political party needs to conform in form only to the provisions of the Constitution, especially to the preamble. Hence, the powers of the Election Commission in regard to registration of political parties under the Symbols Order has been taken away.

This has further led to ruthless mushrooming of many political parties in the country since the Election Commission had no option except to register. This has created many practical and administrative problems and difficulties at the time of election.

Recent Issues-
- It is argued that if a convicted person in a criminal case gets disqualified to contest election, he should not be allowed to head a political party, a stance which stands conflicted by the Section 29A.
- Allowing a convicted person to be an office bearer may in long run be dangerous for the inner party democracy.
- It also threatens the fundamental right guaranteed under the Article 19 by using money and muscle power (criminalization of politics).
- The growing number of political parties registered with the Election Commission avail all the facilities like, tax exemption, political fund contributions, whereas the number of political parties which regularly contest elections is limited to certain number of registered political parties.

Way Forward
- According to Dinesh Goswami Committee the new provision in section 29A do not serve any purpose towards improving the electoral functioning in the country. Thus, it recommended the deletion of the section.
- Further, under the existing section 29A, another clause may be introduced authorising the Election Commission to issue necessary orders regulating registration and de-registration of political parties.

1.5. CANDIDATES CONTESTING FROM TWO SEATS

Why in news?
Election Commission has favoured amendments to the Section 33(7) of Representation of the People Act (RoPA) that allows a candidate to fight from two seats at the same time.

Background
- After independence, the provision of contesting from any number of seats was exploited by the leaders of political parties.
- Dinesh Goswami committee, 1990 recommended that a person should not be allowed to contest elections from more than two constituencies of the same class
- Following the Dinesh Goswami committee, 1990, Section 33(7) was introduced in RoPA.
- Further as per Section 70 of RoPA candidate has to vacate one seat if he ends up winning both. The bye-election is conducted in that constituency.
- Law Commission (170th and 255th report) has also proposed to bar candidates from contesting from more than one constituency.

Why it is opposed?
- If the dictum of ‘One person, one vote’ is the norm in democracy then ‘one candidate, one constituency’ should also be followed.
- It violates Citizen’s right to know under article 19 of the Constitution of India as citizens vote after knowing the candidate’s character, qualification and criminal records etc. and there is an element of betrayal when candidate vacates the seat later.
- There is also an additional financial burden on public exchequer, government manpower and other resources for holding a by-election against the resultant vacancy.
- This is also unfair to upcoming leaders, who have to vacate space so that the bigger leaders can get their second seats.
- It is discriminatory for independent candidates and candidates with relatively lower financial clout.
1.6. OPEN PRISONS

Why in news?
Supreme Court has directed the Centre to hold a meeting of prison officials of states and Union Territories to consider setting up of open prisons.

What is an Open Prison?
An open prison also called as minimum-security prison, open camp, or prison without bars is open in four respects:

- **Open to prisoners** i.e. inmates can go out during the day but have to come back in the evening.
- **Open in security** i.e. there is absence of precautions against escape, such as walls, bars, locks and armed guards.
- **Open in organization** i.e. working is based on inmates' sense of self-responsibility, self-discipline, and self-confidence.
- **Open to public** i.e. people can visit the prison and meet prisoners.

Status of Open Prisons in India
- In India, the first open prison was started in 1905 in Bombay Presidency and in Uttar Pradesh after independence.
- Prisons in India are governed by Prisons Act, 1900 and various states have enacted their own prison rules as it is a state subject.
- Seventeen states are reported to have about 69 functional open jails housing around 6000 inmates with Rajasthan having 29 such prisons, the highest that any state has. Recently India’s first all-women’s open jail was opened in Pune, Maharashtra.

Who are eligible for open prisons?
- Every state law defines the eligibility criteria of inmates who can be in an open prison but the inmate has to be a convict and not an under trial.
- Convicts who have served part of their sentence, displayed good conduct and are physically and mentally fit to work may be sent to open prisons. However rapists, terrorists and repeat offenders are not sent for them.

Impact of Open Prisons
- **Reduce overcrowding**: as the occupancy rate in jails was observed to be around 117.4% till December 2014.
- **Rehabilitative approach**: Open prisons reward good behaviour and gives them training in self-reliance thus providing a shift from retributive to rehabilitative approach.
- **Economic benefit**: They can also provide dependable permanent labour for public works such as dam construction, road building etc. simultaneously providing income to the inmates.
- **Psychological benefits**: Openness and freedom in these prisons prevent frustrations, create hope among long-term prison mates, and provides a positive self-esteem, lesser insecurity and guilt, a better adjustment to personal problems and more co-operative attitude toward inmates and authorities.
- **Skill training**: They can provide training in agriculture, industry or any other vocational training so that they can find suitable employment after they are released after their term.
- **Suitability for release**: They are helpful in examining the suitability of releasing offenders from prisons before the end of their prison term.
- **Lesser Construction and operational costs** than traditional jail system as they are relatively easier to construct and maintain.
Suggestion
- Common rules of eligibility for admission, remission and providing facilities for offenders in open prisons in all states must be framed.
- A check must also be kept on biases, pressures and corruption in preparing lists of prisoners to be sent to open prisons by superintendents.
- Assign powers to the courts for sending certain types of offenders directly to open prisons.

Note: For Prison Reforms in general please refer to July 2017 current affairs of Vision IAS.

1.7. JUDICIAL ACCOUNTABILITY & RTI ACT

Why in News?
A recent High Court judgement overturned the Central Information Commissioner’s order regarding SC rules being inconsistent with RTI Act.

Background
- The CIC had held that the SC rules are inconsistent with the RTI Act and that the Registry of courts must respond to applications within the RTI framework alone.
- This was after the SC Registry had rejected RTI application and asked the petitioner to apply under the Supreme Court Rules only for seeking any information.
- The Registry filed a writ petition before the Delhi HC in 2011 in which the Court stayed CIC’s decision without addressing Section 23 of the RTI Act. In November, 2017, HC, finally, overturned CIC’s order.

Judiciary and RTI
- Numerous petitions seeking information from the court under RTI are asked to be applied under SC rules. Apart from these various courts have also framed their own rules under which various regulations.
- Further, although the courts were included in the definition of Public Authorities (section 2 (h)) most of the HCs did not even appoint Public Information Officers (PIOs) even months after this act came to force which denied people their right to information.
- However, the Supreme Court Rules undermined the RTI in four key ways. Unlike the RTI Act, the Rules do not provide for:
  - a time frame for furnishing information;
  - an appeal mechanism, and
  - penalties for delays or wrongful refusal of information.
  - makes disclosures to citizens contingent upon “good cause shown”.

In sum, the Rules allowed the judiciary to provide information at its unquestionable discretion, violating the text and spirit of the RTI.
- The RTI Act does not permit any appeals to be entertained by any court under Section 23. Nevertheless, the contradiction arises from the fact that the Indian Constitution gives powers to the Supreme Court and the high courts that override any statute.
- Further, SC has said that the decision of the Registrar General of the Court will be final and not subject to any independent appeal to Central Information Commission.

These issues have brought the credibility of judges under question.

Including Judiciary under RTI

Pros
- It will increase the amount of transparency in judiciary in case of appointment of judges as it may decrease nepotism and despotism as criticized to be present in judiciary.
- Courts have always been questioned for pending cases. RTI can place yardstick among judiciary for timely disposal of justice.
• It will increase accountability of judiciary as judges can be held accountable for their decisions.
• It will increase the faith of people if they could also know about judicial working.

Cons
• It may compromise secrecy & security involved in certain cases. This may prove detrimental for our country.
• It may compromise independence of judiciary as specified by constitution and may lead to politicization of judiciary.
• It may create extra burden on judiciary and delays in judicial appointments & transfers as an over conscious approach may be adopted to avoid conflicts.

Conclusion
• In the famous Raj Narain Vs Indira Gandhi case, the SC laid down the foundation of Right to Information in India stating that the people of the country have the right to know about every public act, which is derived from the concept of freedom of speech. However, the judiciary has itself undermined the same right to information. The Supreme Court should begin practicing what it preaches.
• While allowing the judiciary to be controlled and regulated by the executive or the legislature might be fraught with danger, it is also dangerous to allow the judiciary to function without any semblance of accountability and public scrutiny.
• It has been specified by the RTI Act that any law, rule, or regulation that is in conflict with the RTI Act shall be subservient to the RTI Act. Therefore, instead of looking for the loopholes in the law and ascertaining an escape clause to avoid disclosure, the law should be interpreted by the Supreme Court in its true spirit, and embrace disclosure of information as a matter of law.
• It is high time that higher judiciary be brought under RTI Act with following limitations:
  o Sub-judice case where disclosed information can influence judge’s verdict.
  o Confidential information to maintain unity and integrity of nation.
  o If the information does not deal with issue of a public importance and doesn’t affect the person in any way.

1.8. ADULTERY LAW TO BE REVISITED

Why in news?
Supreme Court has agreed to re-examine the constitutional validity of Section 497 of IPC and Section 198 of CrPc related to adultery in India.

Need for re-examination of Section 497 and Section 198
• The Sections go against Gender Equality and Gender neutrality wherein the man committing adultery can be sent to jail for 5 years while the woman is absolved of any criminal liability committing similar acts.
• The provision of punishing only “Outsider man” further reinforces sexual stereotypes that man is sexual agent while woman is naïve, gullible and a passive sexual partner.
• It also presents a kind of “romantic paternalism,” as the women is considered as property of men by giving husbands the exclusive right to prosecute the adulterer.
• It subordinates women by depriving wife from

Recommendations of Various committees and Commissions
• Law Commission, 1971 in its 42nd report recommended making the law gender-neutral and reducing the prison term from five to two years.
• Malimath Committee, 2003 recommended similar treatment for man and woman committing adultery.
• National Commission for Women in 2006 recommended that adultery should be decriminalised.
• United Nations Working Group on laws that discriminate against women in 2012 asked for repealing laws that treat adultery as a crime.

Section 497 of IPC- Adultery
Whoever has sexual intercourse with the wife of another man, without the consent or connivance of that man, such sexual intercourse not amounting to the offence of rape, is guilty of the offence of adultery. In such case the wife shall not be punishable as an abettor.

Section 198 of CrPC-Prosecution for offences against marriage
No person other than the husband of the woman shall be deemed to be aggrieved by any offence punishable under section 497.

Various Personal Laws
Adultery is a ground for divorce in all the personal laws. For e.g. Section 13(1) of Hindu Marriage Act, 1955, Section 2(viii)(b) of the Muslim Marriages Act, Section 32(d) of the Parsi Marriage and Divorce Act, 1936 etc.
prosecuting her husband or the woman with whom her husband has committed adultery.

- The **legislative intent** of preventing adultery gets compromised when indirectly husbands get a free license to have extra marital relationships with an unmarried woman, a divorcee or a widow.
- The section is also against **autonomy and dignity** of a woman (Article 21 of constitution) by taking away her right over her body.

### 1.9. MEGHALAYA’S SOCIAL AUDIT LAW

#### Why in News?
Meghalaya became the **first state in India to operationalise a social audit law**- ‘The Meghalaya Community Participation and Public Services Social Audit Act, 2017’.

#### Important Features of the Act

- A **social audit facilitator** will be appointed to conduct the audit directly with the people who will present findings to the Gram Sabha, which will further add inputs and the result will finally go to the auditors.
- A **Social Audit Council (SAC)** has been established as a panel to review government programmes during the course of their implementation.
- The Act provides a list of programmes, schemes and projects to be audited.

#### Significance of the move

- It will make it easier and quicker to correct course as it will be conducted alongside the scheme.
- So far, social audits have been done at the initiative of civil society organisations which had no official sanction.
- The legislation provides a legal framework for allowing citizens’ participation in the planning of development and various other government programmes.
- It also provides a template for other states to enact such a legislation.

*(Please refer July Current Affairs, 2017, for further details on Social Auditing)*

### 1.10. SCHEMES FOR NORTH EASTERN REGION

#### Why in News?

- Union Cabinet approved introduction of new Central Sector Scheme - “**North East Special Infrastructure Development Scheme**” (NESIDS) from 2017-18.
- **Central Capital Investment Subsidy Scheme** and **Non-Lapsable Central Pool of Resources (NLCPR)** schemes were also approved for continuation till 2020.

#### Northeast Special Infrastructure Development Scheme

- It is a **central sector scheme** with **100% funding** by Union government launched to fill the gaps in creation of infrastructure under following sectors:-
  - **Physical infrastructure** relating to water supply, power, connectivity and specially the projects promoting tourism;
  - **Infrastructure of social sectors** of education and health.

#### North Eastern Industrial and Promotion Policy (NEIPP)

- NEIPP was launched in 2007 with a view to boost industrialisation in NER. It is the revision of North East Industrial Policy, 1997.
- It covers the entire NER and comprise of following benefits:
  - Central Capital Investment Subsidy Scheme, 2007
  - Central Interest Subsidy Scheme
  - Central Comprehensive Insurance Scheme
  - Excise Duty exemption on value addition basis
  - 100% Income Tax exemption for a period of 10 years.
Non Lapsable Central Pool of Resources Scheme (NLCPR)

- It is an accrual of the unspent balance of the mandatory 10% budgetary allocation for the North-Eastern Region of the Ministries/Departments. It was created in 1997-98, with a funding pattern of 90:10, to-
  - Ensure **speedy development of NER** by increasing the targeted flow of budgetary resources.
  - Finance **social and physical infrastructure projects** pertaining to subjects in the Union and Concurrent Lists of the Constitution.
- It is utilized by the Ministry of Development of North Eastern Region (DoNER) under the two Schemes of **NLCPR – State** (fund the priority projects of North Eastern States) and **NLCPR-Central** (funds projects of national and regional importance by the central ministries).
- Recently a NLCPR - Central funded **Tuirial Hydro Electric Project** was inaugurated in Mizoram.

Central Capital Investment Subsidy Scheme

- To promote the **North Eastern Industrial and Promotion Policy, 2007** central government introduced the **Central Capital Investment Subsidy Scheme** in 2007.
- It promotes **development of new industrial units as well as existing ones**.
- It provides a **subsidy of 30% on the capital investment** in Plant and Machinery or any additional investment.
2. INTERNATIONAL RELATIONS

2.1. INDIAN DIASPORA LARGEST IN THE WORLD

Why in news?
Indian diaspora have been found to be world’s largest as per World Migration Report 2018.

More about the news
- As per the 'World Migration Report (2018)', published by the International Organisation for Migration, the Indian diaspora constitutes 6% of the total number of international migrants.
- The population of overseas Indian increased from 6.7 million in 1990 to 16 million in 2015. However, if computed as a percentage of the world's population, the growth of the diaspora has been largely static, from 3.2% in 2010 to 3.3% in 2015.
- Nearly 72% of international migrant population belonged to the working age group of between 20 to 64 years.

Implications for India
Diaspora provides India with number of benefits which include:
- It provides India with much required foreign exchange to meet our shortfalls in current account, Thus, according to latest data remittances inflow crossed $70 billion in 2014.
- Diasporas are symbol of a nation’s pride internationally and help in building its brand internationally through their huge success stories.
- Many emigrants make huge investments into their home countries in domestic financial, real estates, services and technological sectors helping in huge inflow of capitals that boost local economy and create huge jobs.

Migration and other areas of Global Governance
- Migration and development: Migration is incorporated into the 2030 Agenda for Sustainable Development to acknowledge the linkages between migration and development. Goal 10 in SDGs aims “to reduce inequality within and among countries”
- Migration and climate change: Human mobility due to climate change has featured in global outcome declarations on climate change including UNFCCC, Paris agreement etc.

International Organization for Migration (IOM)
- It was established in 1951 & is headquartered in Geneva, Switzerland.
- It was made a related organization to UN in 2016.
- It is an intergovernmental organization in the field of migration to promote humane and orderly migration for the benefit of all.
- India became a member state in 2008.

GULF TOP DESTINATION

International Conventions governing Migration
- Palermo Protocol to the Convention against Transnational Organized Crime (UNCTOC) dealing with Trafficking and Smuggling.
- Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families (ICRMW), 1990.
Migration and disaster risk reduction: Sendai Framework for Disaster Risk Reduction 2015–2030 acknowledges that displacement is one of the devastating effects of disasters and that migrants are a relevant stakeholder in it.

Migration and urbanization: 2016 UN Conference on Housing and Sustainable Urban Development committed to “ensuring safe, orderly and regular migration through planned and well-managed migration policies”.

Conclusion

International migration is an important global issue that requires a more effective system of global governance. Amidst protectionism and xenophobia a step by step process of consultation, cooperation and confidence-building is the most promising path towards global migration governance.

2.2. INDIA GETS ENTRY INTO WASSENAAR ARRANGEMENT

Why in news?
Recently the Wassenaar Arrangement (WA) decided to admit India as its new member.

What is Wassenaar Arrangement?
• It is a multilateral export control regime (MECR) to promote transparency and greater responsibility in transfers of Conventional Arms and Dual-Use Goods and Technologies.
• It was established in 1996 as a successor to the Cold War Era Coordinating Committee for Multilateral Export Controls (CoCom) and is headquartered in Vienna, Austria.
• It has 42 members with India being the newest entrant. All the permanent members of the U.N. Security Council barring China are signatories of the WA.
• It works according to Wassenaar Control List under which members agree to exchange information on sensitive dual-use goods and technologies and report on such transfers and denials of controlled items to non-participants.

Background
• India had declared a Special Chemicals, Organisms, Materials, Equipment and Technologies (SCOMET) list in April.
• Through SCOMET list India listed its dual use technologies under its Foreign Trade Policy to make India’s export controls in line with the Wassenaar Arrangement.

Implications of India’s entry to Wassenaar Arrangement
• Access to dual-use technologies: that can be used for both civil and military purposes.
• Boost to NSG membership: India’s entry into two export-control regimes will give it the necessary leverage to get admission into the Nuclear Suppliers Group, which China continues to block.
• Reaffirmation of India’s credibility: affirmation of India’s position as a responsible nation in the arena of dual-use goods and technology, besides transfer of conventional arms.
• Boost to Defence and Space segments: DRDO and ISRO had restricted access to cryogenic technology, ICBM technology etc. Now there will be realignment of export control regime providing access to critical technology for India.
• Industrial Tie-Ups: Entry to WA is expected to facilitate high technology tie-ups with Indian industry through our eligibility for certain licensing exemptions.
2.3. THE NEW US SECURITY STRATEGY

Why in news?
USA has recently unveiled its New Security strategy (NSS).

Key Highlights
- **Indo-Pacific region** - The document explicitly includes India in its definition of the Indo-Pacific, which stretches “from the west coast of India to the western shores of the United States”.
- **Combating China and Russia** – They have been termed as "revisionist" powers determined to reshape the world according to their own ideals.
- **Budding India Alliance** - It promotes a deeper partnership with India and asks Pakistan to crack down on "transnational terrorists" operating from its soil.
- **Tilt to Bilateralism** - It favors bilateral trade deals over multi-country deals considering the countries are in fierce competition with each other.
- It asks U.N. and international financial institutions to be accommodative of US’s interests rather than being detrimental to it.

Importance for India
- It recognizes India as a “leading global power” and “stronger strategic and defence partner” and seeks to increase quadrilateral cooperation with Japan, Australia, and India.
- This assessment is an upgrade from “regional provider of security” in 2015 and one of “21st century centres of influence” in 2010.
- A pressure on Pakistan to intensify its counterterrorism efforts, being a “responsible steward” of its nuclear assets holds importance for India Pakistan relations.
- It further supports sovereignty of South Asian countries indirectly referring to Belt and Road Initiative that India has kept a distance from.
- US has committed that it will encourage the economic integration of Central and South Asia to promote prosperity and India should also increase its economic assistance in the region.

Way Forward
Though the strategy is quite supportive of India, following points must be kept in mind –
- While the notion of the Indo-Pacific sounds grandiose and enticing, India must not forget that its primary area of concern is its immediate neighborhood. Securing its position here is vital before venturing elsewhere.
- India should be wary of any attempts at being pitted as a front in the U.S.’s efforts to check China’s rise and jeopardise Sino-India relations.
- India needs to undertake capacity building in its own neighbourhood as China is exploring the possibility of foreign military outposts in Africa, West Asia and Indian Ocean.

2.4. US RECOGNISES JERUSALEM AS CAPITAL OF ISRAEL

Why in news?
US President has recognised Jerusalem as the capital of Israel and has decided to move its embassy from Tel Aviv to the holy city.

What is implication of Trump’s Decision on Jerusalem?
- **Undermine USA’s credibility as arbitrator**: USA’s decision goes against its longstanding neutrality and its clear siding with Israel can derail its role as Peace broker in Palestine, West Asia and Afghanistan.
- **Complicates two state solution**: It may put the years of diplomatic efforts for two state solution such as Madrid Conferences and Oslo accords on the backburner.
Increase Religious Tensions: The perceived harm to Muslim claims in Jerusalem will result in volatile protests across the Muslim world as Jerusalem is holiest ground not only in Judaism but also is Islam’s third-holiest shrine and major Christian sites.

Regional Conflicts: HAMAS has declared third Intifada and Iran and Syria have come out openly in support of Palestine adding to volatility and instability in region.

UN Response and India’s Stance on the issue

In response to USA’s move UN general assembly voted against declaration of Jerusalem as capital of Israel by a majority of 128-9. It reaffirmed that final status of the city will be “resolved through negotiations in line with relevant United Nations resolutions”

India voted against USA rather than abstaining from voting despite USA’s pressure tactics. It indicates:
- It is in line with India’s non-alignment policy and support for Palestinian cause.
- It also represents India’s shift from a balancing power to a leading power on international stage. Earlier also India supported Mauritius’s claim on sovereignty over Chagos archipelago and second was India getting a seat in ICI despite US objections.
- By supporting Palestine India stayed with major groupings like SCO, BRICS and major European countries.
- India has significant interests in West Asian peace and stability as well thus necessitating such move.

2.5. INTERNATIONAL MARITIME ORGANISATION (IMO)

Why in news?

India has been re-elected to the Council of the International Maritime Organization (IMO) under Category “B” for two years (2018-19).

International Maritime Organisation

- IMO is a specialised United Nations agency which is committed towards safe, secure and efficient shipping on clean ocean and plays an important role to create fair, effective and universally accepted regulatory framework.
- It is headquartered in London, United Kingdom, the IMO has 172 Member States and three Associate Members.

India and IMO-

- India was one of the earliest members of IMO and has ratified over 34 IMO conventions and protocols and joined as a member state in 1959.
- India serves IMO with expert manpower whenever required. For example, Indian auditors serve Voluntary IMO Member State Audit Scheme (VIMSAS).
- IMO is significant for India given the fact that:
  - India’s 95% of trade by volume and 70% by value is done through maritime transport.

Two- State Solution of Israel Palestine Issue:

It envisages an independent State of Palestine alongside the State of Israel west of Jordan river.

- 1937: Proposed on basis of Peel Commission report but rejected by Arabs.
- 1948: UN partition plan given with Jerusalem under international control
- Oslo Accord, 1991: Provided the foundation for political boundaries as it stands today.
- The Madrid Conference of 1991 was a peace conference co-sponsored by the US and the Soviet Union to revive the Israeli–Palestinian peace process through negotiations.
- UNSC Resolution 1397: Agreed in 2000 with support from USA and becoming first UNSC resolution to agree on two state solution.

Important Conventions

- International Convention for the Control and Management of Ships’ Ballast Water and Sediments (BWM): It came into force in September 2017 and aims to prevent spread of harmful aquatic organisms from one region to another by establishing standards for management of ships’ ballast water and sediments.
- International Convention on Civil Liability for Bunker Oil Pollution Damage (BUNKER): It aims to provide adequate, prompt and effective compensation to the people who are affected by the damages caused due to oil spills from the ships carrying oil in their bunkers.
- International Convention for the Safety of Life at Sea (SOLAS), 1974: It aims to specify minimum standards for construction, equipment and operation of ships, compatible with their safety.

India’s Maritime Initiatives

- Ratified SOLAS Convention for safety of merchant ships.
- Took active initiative in High Risk Area in Indian Ocean along with IMO and Contact Group on Piracy on the Coast of Somalia (CGPCS)
- It has also deposited with the ILO, instrument of ratification of the Seafarers’ Identity Documents Convention (revised), 2003 and Maritime Labour Convention, 2006.
Growing presence of China in South Asia
The announcement of a FTA is another sign of Beijing’s increasing outreach in South Asia.

- China already has an FTA with Pakistan, and is exploring or negotiating FTAs with Bangladesh, Sri Lanka and Nepal.
- The Maldives has also agreed to become a partner in China’s maritime silk route.

Concerns for India
- The biggest worry for India is that the FTA will draw the Maldives more closely into China’s security net.
- FTA was signed even after President Yameen, during a visit to New Delhi, said that his country would sign an FTA with India first.
2.8. US WITHDRAWS FROM GLOBAL COMPACT ON MIGRATION

Why in News?

The US recently pulled out of United Nation’s Global Compact on Migration, deeming it inconsistent with its immigration policies.

What is UN’s Global Compact on Migration?

- It is the first, inter-governmentally negotiated agreement and is framed consistent with target 10.7 of the 2030 Agenda for Sustainable Development in which member States committed to cooperate internationally to facilitate safe, orderly and regular migration.
- Its main aim is to-
  - Address all aspects of international migration, including the humanitarian, developmental, human rights-related and other aspects;
  - Make an important contribution to global governance and enhance coordination on international migration;
  - Present a framework for comprehensive international cooperation on migrants and human mobility;
  - Set out a range of actionable commitments, means of implementation and a framework for follow-up and review among Member States regarding international migration in all its dimensions; etc.
- It was prepared under the auspices of the United Nations, in September 2016, in the New York Declaration for Refugees and Migrants, which was adopted by 193 UN member states. The declaration is of non-binding nature.
- India has also signed this declaration.
- To be adopted in 2018, the compact is seen as a significant opportunity to improve the governance on migration and is expected to address the challenges associated with today’s migration, and to strengthen the contribution of migrants and migration to sustainable development.

2.9. PERMANENT STRUCTURED COOPERATION ON DEFENCE (PESCO)

Why in news?

European Union adopted the decision to establish a European Union defence pact known as Permanent Structured Cooperation on Defence.

About the Pact

- It is an intergovernmental, binding, permanent framework and a structured process to gradually deepen defence cooperation within EU framework.
- The aim is to jointly develop defence capabilities and make them available for EU military operations.
- The Member states can also make the military capabilities available under PESCO for United Nations and NATO as well.
- Significance of the PESCO –
  - Reinforces EU’s strategic autonomy and act alone when necessary.
  - Keeps national security and sovereignty of member states intact and allows them to use the military capacity developed under PESCO.
  - Strengthen operational cooperation, interoperability and industrial competitiveness among members by decreasing the different weapons systems in Europe.
- So far 25 member of EU have signed the pact except Denmark, Malta and Britain. PESCO is also open to NATO members also who wish to take part in it. However there is no provision about the inclusion of non-EU NATO member.
3. ECONOMY

3.1. STRATEGY ON RESOURCE EFFICIENCY

Why in News?
NITI Aayog in collaboration with the European Union delegation to India have released the Strategy on Resource Efficiency (RE).

Introduction

• UNEP established the International Resource Panel (IRP) in 2007 as a central institution to provide independent scientific assessments on sustainable use of natural resources and their environmental impacts and policy approaches.
• Various countries have taken relevant steps and pioneered in RE highlighting the need for similar steps to be taken by India. For example-
  o German Resource Efficiency Programme (ProgRess), and
  o European Commission’s Roadmap to a Resource Efficient Europe.
• The Indian Ministry of Environment, Forests and Climate Change (MoEFCC) and Indian Resource Panel (InRP) (in April 2017), launched the Indian Resource Efficiency Programme (IREP) to make resource use economically and environmentally sustainable.
• IREP recommended the development of Strategy on Resource Efficiency for enhancing resource-use efficiency in Indian economy and industry.
• The strategy focuses on abiotic material resources, excluding fossil fuels, of two strategic sectors- Construction & Mobility (these sectors have witnessed high growth rate, are biggest consumers of materials, contribute significantly to GDP and employment in the country).

Resource Use in India

Various trends that reflect the increase in material consumption in India are:-
• Around 97% of all materials including biotic and non-renewable materials consumed in the country are extracted domestically.
• Extraction of primary raw materials increased by around 420% between 1970 and 2010.
• In 2010, India’s material demand was the third largest in the world, after China and the United States. India consumed about 7.2% of globally extracted raw materials in that year.
• Consumption patterns remain highly differentiated in India with an urgent need to reconcile the oversupply of resources and materials to the upper and middle classes and an undersupply along with severe lack of access of basic minimum resources for the poor.

Need for Strategy on RE

• With the background of higher economic growth, a thriving middle class, rapid urbanisation and a growing population, there has been an increase in the scale and intensity of resource use.
• Thus, concerns over larger economic, social, political and environmental consequences like resource depletion, price shocks and rapid degradation of natural resource base have emerged which calls for a judicious use of resources urgently.
• The SDG 12 (Responsible consumption and production) also recognizes the potential of resource efficiency in resolving the short-term trade-offs between growth and environmental sustainability towards enhancing the overall security of human beings.

About Resource Efficiency

• It is the ratio between a given benefit or result and the natural resource use required for it.

Global Context
• Globally, the extraction of primary materials increased from 24 billion tonnes in 1970 to 70 billion tonnes in 2010 (UNEP, 2016).
• The highest increase in use of natural resources can be found in Asia, where the extraction of primary materials more than quintupled in just 40 years, particularly after 1990.
• It means using the Earth's limited resources in a sustainable manner while minimising impacts on the environment.
• It is closely linked with the concept of Circular Economy (which implies reusing wastes back into new products and uses, instead of wasting such potential resources).
• However, resource efficiency encompasses a wider range of strategies through the entire life-cycle of products: Mining/Extraction \(\rightarrow\) Design \(\rightarrow\) Manufacturing/Production \(\rightarrow\) Use/Consumption \(\rightarrow\) Disposal/Recovery
• Since a single universally applicable indicator does not exist, the strategy recommends India to use GDP per Domestic Material Consumption for measuring RE in the initial phase.

Benefits of RE

• Economically:
  o Improves resource availability which translates into reduced price spikes due to supply constraints or disruptions.
  o Improves industrial competitiveness and profitability, since material cost is typically the largest cost for the manufacturing sector.
  o Creates new industries, including those in the recycling sector, as well as in innovative design and manufacturing.
  o Improves the country’s trade balance and promote economic stability by reducing import dependence.

• Socially:
  o Reduces extraction pressures, which may reduce conflict and displacement in mining areas, as well as improve health and welfare of local communities (since India’s mineral rich areas are under dense forests and inhabited by indigenous communities).
  o Contributes to improved affordability of and access to resources critical for poverty reduction and human development
  o Leads to job creation, not only in the recycling sectors, but also high skilled jobs in innovative design and manufacturing.
  o Contributes towards preserving resources for future generations.

• Environmentally:
  o Helps to reduce ecological degradation and pollution associated with mining.
  o Provides opportunities for undertaking landscape restoration and regeneration of degraded mined areas.
  o Reduces waste generation which will not only reduce pollution associated with disposal but also save related costs.
  o Reduces GHG emissions, since resource extraction and use is highly energy intensive.

Existing Policy Context in India

• There are many existing policies influencing resource use at different lifecycle stages, viz.
  o Mining stage- National Mineral Policy includes zero-waste mining as a national goal and emphasizes the need to upgrade mining technology.
  o Design stage- Policies like the National Housing and Habitat Policy, 2007 and the Pradhan Mantri Awas Yojana (PMAY), 2015 emphasize on developing appropriate ecological design standards for building components, materials and construction methods.
  o Manufacturing stage- “Make in India” provides special assistance to energy efficient, water efficient and pollution control technologies through Technology Acquisition and Development Fund (TADF).
  o End-of-life stage- Policies to tackle all types of waste ranging from hazardous waste to Municipal Solid Waste

Recommendations for RE Strategy

• Promotion through ways like Eco-labelling, standards, technology development, green public procurement, industrial clusters, awareness, etc.
• Regulations using economic instruments like viability gap funding, policy reforms across life cycle stages, etc. to facilitate viable ways to decouple economic development from material consumption.
• Institutional development like capacity development, institutional set-up and strengthening, database and indicators, resource index as a part of economic survey, etc.

Components of RE Strategy

• Impact Assessment of RE measures (through various concepts and indicators)
• Assessing material use in selected sectors
• Enhance material efficiency in selected sectors
(MSW), Construction and Demolition (C&D) waste, plastic waste and e-waste.

- However, their design, emphasis, integration or implementation is often suboptimal in terms of achieving RE goals.

3.2. WTO MINISTERIAL CONFERENCE 11

Why in news?
- The Eleventh Ministerial Conference (MC11) took place in December 2017 in Buenos Aires, Argentina. However, the members failed to agree to a ministerial declaration at the end of MC11.

Key Takeaways
- Fishery subsidies –
  - Member nations committed to securing a deal on fisheries subsidies for prohibiting subsidies for illegal, unreported and unregulated (IUU) fishing which delivers on Sustainable Development Goal 14.6 by the end of 2019.
  - They also committed to improving the reporting of existing fisheries subsidy programmes.
- Public Stockholding –
  - There was no outcome on public stockholding for food security purposes or on other agriculture issues. As a result, India’s food security programmes and its current public distribution system will not be impacted.
  - However, to use the peace clause, India has to give information to WTO about the size of its food subsidy bill till last year.
- E-commerce –

SDG Goal 14.6
By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation.
Another outcome was to continue the **1998 work programme on e-commerce**. While there was a strong push by some countries to initiate negotiations on this issue, this was resisted by India.

The consensus decision was to continue discussions in a non-negotiating mode — a vindication of India’s stand.

- **Non-trade issues** –
  - Developed nations strived to bring into the discussions a stream of issues from **rules for small and medium enterprises to gender rights in global trade**, which India has categorized as non-trade issues.
  - Many of these proposals run counter to India’s interests while also reducing the policy space for governments if norms are decided beforehand.
- Other issues where **no agreement** was reached include:
  - the work programme on **special safeguard mechanism (SSM)** for developing countries to curb unforeseen surges in imports of agricultural products
  - the work programme on 10 agreement-specific proposals for improvements in **special and differential treatment** of developing countries
  - long-standing **cotton issue**, calling for elimination of export subsidies, since the 2005 Hong Kong Ministerial Conference

### Relevance of WTO for India

- Regional trade groups cannot be an alternative as they have succeeded in some places and they have not elsewhere. India’s own experience with bilateral trade agreements has not always been good.
- There is a risk that bilateral and regional agreements are trade diverting and that differences in trade protection generated politically may incentivize goods and services to flow in directions that are not efficient from a market perspective.
- Bilateral and regional treaties also open the door to the stricter “WTO plus” conditions in select areas like patents.
- India is in a better position with its food procurement and public stockholding policies protected within the WTO than with having to negotiate separate deals with major farm exporters like the U.S., Canada and Australia.

### Conclusion

- The existential crisis facing the WTO, highlighted by the failure of the recent ministerial meeting at Buenos Aires is only symptomatic of a decline in its importance.
- The nature of the deliberation at MC11 is a manifestation of the changing global power dynamics.
- While certain developed countries (in this case, the US) can prevent outcomes going against its interest, some of the developing countries are now in a position to firmly resist its hegemony at the multilateral level.
- Therefore, need of the hour are the structural reforms in the WTO functioning as multilateral trading system embodied by the WTO based on mutually agreed discipline on market access, customs duties, etc. remain critical to maintaining global interdependence.

Following the failure of MC11, with an aim was to bring like-minded nations together and explain to them the country’s position as well as concerns over issues of common interest; India will call a meeting of some World Trade Organization (WTO) members in February 2018 to muster support for food security and other issues.
Why in news?
- Recently, government has introduced the Mid-term review of Foreign Trade Policy (FTP) 2015-20.
- Recently, government has introduced the Mid-term review of Foreign Trade Policy (FTP) 2015-20.

Highlight of Mid-Term Review
The mid-term FTP policy review suggested some new incentive and policy action, such as:

- **On Incentives - Export incentives under MEIS have been increased by 2 percent for labour intensive MSME sectors.**
  - An increase in MEIS incentives from 2 percent to 4 percent for Ready-made Garments and Made Ups in the labour intensive Textiles Sector.
  - Incentives under SEIS have also been increased by 2% percent.
  - Increase in the validity period of duty-free credit scrips to 24 months from 18 months to enhance their utility in the GST framework and seeks to remove the levy of GST on these scrips.

- **On ease of doing business – It sets up a single point of contact on foreign trade.**
  - It proposes to set up a logistics arm in the commerce ministry and a trade analytics division for data-based policy actions and an e-wallet is also proposed to be set up to address the liquidity problems faced by exporters.
  - Exporters will self-certify the requirement of duty free raw materials/ inputs under Authorized Economic Operators (AEOs).

- **Other supportive measures**
  - The Export of agricultural products will be encouraged for increasing farmers’ incomes.
  - Issue of Gold availability is resolved by allowing Specified Nominated Agencies to import Gold without payment of IGST.
  - Support to Export Credit Guarantee Corporation is also being enhanced to increase insurance cover to exporters particularly MSMEs exploring new or difficult markets.
  - Focus will be given to Ease of Trading across borders with the help of professional team to handhold, assist and support exporters in their export related problems.

---

**3.3. MID-TERM REVIEW OF FOREIGN TRADE POLICY**

**GST impact on exports**
- In the short run, the impact of GST on exporters is negative in term of filling number of return forms.
- Withdrawal of incentives: The sudden withdrawal of duty draw back scheme (except on custom duty), affected the labour-intensive industries in term of job losses.
- No refund mechanism of unutilised input tax credit under GST for cotton fibre and man-made textile has increased their cost, and made garments uncompetitive in the global market.
- Due to issues of mismatch between information with exporter in GST returns and shipping Bill filed with Customs authorities, the refunds are getting delayed.
- High rate of Freight under GST for air on air, sea and railway freight on exports not only causes additional cost burden on exporters.
- Deemed Exporter has not been recognised under GST framework, thereby, making them ineligible for refund and tax benefit which further hit their competitiveness.

**Recommendation of Parliamentary committee on Impact of GST on Export**
- **On system of refund-** semi-automatic system of input tax credit should be replaced with a completely automatic system for claiming refunds.
- **On grievance redressal-** there should be a formal mechanism for grievance redressal of exporters especially for filling the claim and refund mechanism.
- **On Duty Draw Back-** the duty drawback rates before the introduction of GST should continue till Jun 30, 2018 or till the Department of Revenue works out revised duty drawback rates.
- **On Deemed export-** government should bring out more clarification about the qualifying supplies as deemed exports, and extend export related benefits under the current GST framework.
- **On reverse charge mechanism-** it should be removed or Government may explore the possibility of creating an optional mechanism where SEZ unit may be allowed to seek the refund.
- **On Freight-** export freights through air, sea and railway may be exempted or rationalized.

**Overview of External Sector**
- India’s foreign exchange reserves were US$ 399.921 billion as on October 20, 2017.
- Total FDI in India hit an all-time high of $60.1 billion in 2016-17
- Total merchandise exports from India grew by 10.29 per cent year-on-year while overall trade deficit increased year-on-year from US $ 12.72 to US $ 39.87 billion during April-August 2017.
FTP 2015-20

- **Target**: doubling the export (both Merchandise and Service) to $900 million and achieve 3.5% share of world export by 2019-20.
- It provides a framework for increasing exports of goods and services as well as generation of employment and increasing value addition in the country, in line with the ‘Make in India’ programme.
- It introduces two new schemes, namely ‘Merchandise Exports from India Scheme (MEIS)’ for export of specified goods to specified markets and ‘Services Exports from India Scheme (SEIS)’ for increasing exports of notified services.
- Effort of FTP will be drawn towards manufacturer exporters by facilitating them for fast access to international markets through Approved Exporter System.
- It promoted simplification of Procedure such as simplifying Aayat Niryat form, self-certification by status holder manufacturer in matter of bilateral and regional trade.

3.4. FINANCIAL RESOLUTION AND DEPOSIT INSURANCE (FRDI) BILL 2017

**Why in news?**

Recently a bill named Financial Resolution and Deposit Insurance (FRDI) Bill 2017 was tabled in parliament.

**Key Provisions of FRDI bill:**

- It seeks to establish a Resolution Corporation to replace the existing Deposit Insurance and Credit Guarantee Corporation (DICGC).
- Resolution Corporation will monitor the financial firms such as banks and insurance companies, anticipate their risk of failure, take corrective action, and resolve them in case of such failure. The Corporation will also provide deposit insurance up to a certain limit, in case of bank failure.
- The Corporation will also classify financial firms on their risk of failure — low, moderate, material, imminent, or critical and take over the management of a company once it is deemed critical and resolve the firm within one year (may be extended by another year).
- Resolution may be undertaken using methods including: (i) merger or acquisition, (ii) transferring the assets, liabilities and management to a temporary firm, or (iii) liquidation. If resolution is not completed within a maximum period of two years, the firm will be liquidated. The Bill also specifies the order of distributing liquidation proceeds.
- It provides for a wide range of resolution instruments such as bail-in, bridge institution, and run-off entity for insurance. These are in addition to the existing tools used such as merger and sale.
- It further provides for the designation of certain financial service providers as “systemically important financial institutions” (SIFIs) by the central government, the failure of which may disrupt the entire financial system, given their size, complexity, and inter-connectedness with other financial entities.

Presently, each depositor is protected up to a limit of Rs1 lakh by the guarantee of the Deposit Insurance and Credit Guarantee Corporation (DICGC). As of 31 March 2017, 92% of deposit accounts were fully protected by this mechanism, as these accounts are with deposits below Rs1 lakh.
• It provides power to **clawback performance incentives** paid to senior management of a failed bank. This would ensure that the people responsible for the failure do not benefit from their decisions that led to it.
• The Bill will apply to banks, insurance companies, stock exchanges, depositories, payment systems, non-banking financial companies, and their parent companies.

**Bail-In Clause**
- Bail-In is a tool of financial resolution wherein creditors and depositors absorb some of the losses in case of failure of a financial institution.
- It is different from Bail-out where public funds are used to inject capital into an ailing company.
- Currently the laws governing resolution of financial firms do not contain provisions for a bail in and if a bank fails, it may either be merged with another bank or liquidated.

**Status of Bail-In clause internationally:**
- Bail-In was introduced to prevent a situation of Moral Hazard of using tax-payers money for Bailing-Out and rather shifting this responsibility to Bank’s shareholders and depositors through Bail-In.
- Financial stability Board (FSB) has recommended for bail-in laws in its resolution framework.
- Countries such as UK and Germany have provided for bail-in under their laws but the provision has rarely been used.

**Significance of Financial Resolution legislation:**
- **Order of Priority** - Uninsured depositors are presently treated on par with claims of unsecured creditors, and rank below preferential payments, which include government claims. The Bill improves the order of priority for uninsured deposits.
- **Safeguard interest of depositors** – It is meant to protect the interest of consumers as it prevents consumer losses due to lengthy resolution proceedings or instability in financial system
- **Fill Legislative Void** - It provides for dedicated financial resolution authority in India a function hitherto dealt by RBI and IRDAI for the banking and insurance sectors, SEBI and PFRDA for mutual funds and pension funds etc.
- **In line with Global Trends** - It makes our legislation in lines with Financial Stability Board’s (which includes G-20 countries including India) “new international standards for resolution regimes” accepted in 2011
- **Resolving NPA’s** - RBI’s Financial Stability Report released in June 2017, has put the gross non-performing advances (GNPAs) ratio of all banks at 9.6% as of March 2017.
- **Supplement other Efforts** - Together with the Bankruptcy and Insolvency Code, re-capitalisation of PSU banks, and FDI in insurance, this Bill is touted to be a landmark reform in the financial sector

**Concern Regarding FRDI Bill**
- As per Section 52 (Bail-In) of the proposed Bill, depositors might lose their rightful claim to retrieve their savings in case of liquidation of banks and insurance companies. Thus, there is a concern among depositors that they may lose their deposited money.
- The Bill does not specify a review or appeal mechanism for aggrieved persons to challenge the decision of the Resolution Corporation.
- A financial firm will have to be resolved within two years of being classified as ‘critical’. However, the point at which the resolution process ends is not specified in the Bill.
- Under the Bill, the Resolution Corporation will take over a firm classified as ‘critical’. However, it may choose to resolve the firm. It is unclear why the Corporation is given a choice to undertake resolution.
Currently deposits amounting up to one lakh rupees are insured by the Deposit Insurance and Credit Guarantee Corporation (DICGC) but the bill neither specifies the insured amount nor the amount a depositor would be paid in case of bankruptcy.

**Safeguards in FRDI Bill**

- The resolution corporation will **consult with RBI to set the amount for deposit insurance** and consequently it may be higher than current 1 Lakh insurance limit provided under DICGC act and thus the amount has not been currently specified in the bill.
- It is also specified that bail-in clause will be used only if the creditor has given the **consent** for it and there is a **provision for compensation** in case of failure of adherence to the norms.

**Way Forward**

- Some experts have argued scrapping the bill altogether because it does not fit Indian scenario of domination of Public sector banks unlike Western countries where private banks dominate. It may weaken the sovereign guarantees by introducing hazardous resolution provisions like bail-in.
- On the other hand **RBI working group** on the resolution regime had recommended that deposit liabilities, inter-bank liabilities, and short-term debt be entirely excluded from bail-in clause rather than scrapping the bill altogether.
- Further there should be a significant **increase in the deposit insurance coverage limit** to increase confidence of depositors and further strengthen systemic stability.

### 3.5. RBI’S FINANCIAL STABILITY REPORT

**Why in news?**

- The Reserve Bank of India recently released its bi-annual financial stability report (FSR).

**Major Highlights of the Report**

**Overall Assessment of systemic risks:** India’s financial system remains stable. While developed economies remain accommodative, and increased geopolitical risks might result in volatility in commodity prices.

**Global and Domestic Macro-financial Risks:**

- In terms of structural change, technology-led growth is making the world lot more unequal.
- The overall investment climate remains challenging despite an improvement post demonetization and GST.

**Financial Institutions: Performance and Risks**

- Credit growth of scheduled commercial banks (SCBs) showed an improvement between March and September 2017, while public sector banks (PSBs) continued to lag behind their private sector peers.
- The gross non-performing advances (GNPA) ratio has grown to 10.2 percent in September 2017 from 9.6 percent in March 2017.
June 2017. Stress test suggests that it may rise to 10.8 percent in March 2018 and further to 11.1 percent in September 2018.

- Incidentally, private sector lenders considered to be more prudent reported a 40.8 percent spike in GNPAs as compared to 17 percent by state-run banks.
- GNPAs of the NBFC sector as a percentage of total advances increased between March 2017 and September 2017.
- The banking stability indicator (BSI) shows that the risks remain at an elevated level weighed down by further asset quality deterioration.
- Overall, capital to risk-weighted assets ratio (CRAR) improved from 13.6 per cent to 13.9 per cent between March 2017 and September 2017.
- The share of large borrowers both in total SCBs’ loans as well as GNPAs declined between March and September 2017.

**Challenges**
- The growing GNPAs pose a systemic risk to the financial stability of the banking system. The same is echoed by increasing BSI.
- There is a decline in investment proposals which thereby affects credit growth in the country.
- Under-reporting of NPAs especially by the private lenders poses a serious obstacle in resolving the issue of NPA in India.
- Stress loans to agriculture have risen since March 2017 indicating rural distress.

**Way Forward**
- Stalled projects need to be cleared in a time-bound manner in order to put a halt to growing NPAs.
- Stricter regulatory reforms need to be introduced alongwith recapitalisation.
- Privatisation of the public sector banks need to considered.
- Drought and other bottlenecks in the agriculture sector in to be addressed across the country.

### 3.6. CONSUMER PROTECTION BILL 2018

**Why in News?**
- The Consumer Protection Bill, 2018 was introduced in the Lok Sabha.

**Background**
- The new law seeks to replace the Consumer Protection Act (CPA) 1986 and is in line with the revised UN guidelines on consumer protection (See Box).
- The CPA act 1986 provides:
  - Central Consumer Protection Council to promote six rights (i) Right of Safety (ii) Right to be informed (iii) Right to choose (iv) Right to be heard (v) Right to seek redressal (vi) Rights to Consumer Education.
- Grievance Mechanism: Three tier complaint redressal mechanism such as District, State and Nation Consumer Dispute Redressal Mechanism has been set-up.

**Need for a new Consumer Protection Law**
- Several shortcomings have been noticed while administering the various provisions of the

**UN Guideline on Consumer Protection 2016**
- Enacts a national policy on Consumer Protection.
- Safety Measure: adopt legal, physical, voluntary standard for consumer.
- Economic Interest: avoid such business practice contrary to finance interest of consumer.
- Established standardise norms for quality and safety of goods and services.
- E-Commerce: enhance and revise the existing framework of policy to incorporate e-commerce.
- Financial Service: Established a financial consumer protection regulatory and enforcement policies, appropriate control to protect financial data, and policy on conflict of interest.

**Other legislative initiatives for Consumer protection in India**
- The agricultural product (Grading and Marketing) Act (AGMARK) 1937: provide certain standards of quality for agricultural produce and verifies whether certain products get marked.
- The Essential commodity Act 1955: ensure timely supply of necessary goods.
- The Bureau of India Standard Act 2016: ensure standardization, marking, certification of process of articles.
- The Real Estate Act 2016 enacted to protect the rights and interest of consumer in real estate.
said Act. For instance, disposal of cases has not been fast due to various constraints.

- Consumer markets for goods and services have undergone drastic transformation since the enactment of the 1986 Act. The modern market place contains a plethora of products and services.
- The emergence of global supply chains, rise in international trade and the rapid development of e-commerce have led to new delivery systems for goods and services and have provided new options and opportunities for consumers whilst at the same time highlighting the need for an updated regulatory mechanism.
- Misleading advertisements, tele-marketing, multi-level marketing, direct selling and e-commerce pose new challenges to consumer protection and will require appropriate and swift executive interventions to prevent consumer detriment.

**Important Features of the Consumer Protection Bill 2018**

- **National Regulator**: Central Consumer Protection Authority, will act as a national authority to regulate and prevent violation of consumer rights, and to initiate class action including enforcing recall, refund and return of products, etc.
- **Product Liability Action**: It envisages provisions for product liability action on account of harm caused to consumers due to a defective product or by deficiency in services against a product manufacturer, service provider or seller.
- **Unfair Trade Practices**: In order to prevent unfair trade practices in E-commerce and direct selling, the Bill empowers the Central Government to take measures to protect the interest and rights of consumers. Further, the bill also renders an exclusive definition of “e-commerce”.
- **Offences and Punishment**: It provides for penalties for false or misleading advertisement (by celebrities as well), selling or distributing or importing adulterated and spurious products.
- **Alternate Dispute Mechanism**: has been provided by establishment of consumer mediation cell and also enumerates the procedure for mediation.
- **Unfair Contract**: it proves certain circumstances where contract would be termed as unfair such as payment of excessive security deposits, penalty for a breach etc.

### 3.7. CONTRACT FARMING

**Why in news?**

Recently, Model Contract Farming Act was released by the government.

**Need for contact farming in India**

- **Distress Farming Situation**: There is increasing stances of agitations by farmer groups in several states against plunging crop prices and demands for loan waivers.
- **National Agricultural Policy**: envisages promotion of private participation via contract farming and land leasing arrangements.
- **Poor price discovery**: There is an APMC monopoly on agriculture produce and restriction on direct buying from the farmers.
- **NITI Aayog observed** that taxes charged by APMC for contract framing are exploitative. In this context, the Committee of State Ministers on Agricultural Reforms recommended that contract farming should be out of the ambit of APMCs.

#### Challenges with Contract Farming

- **State reluctance**: States have been reluctant to carry forward reform for the fear of loss of revenue.
- **Stockholdings limits on contracted produce** under Essential Commodities Act, 1955 are restrictive and discourage buyers to enter into contracts.
- **Lack of uniformity or homogeneity** among states law regarding kinds of produce, conditions etc. which is needed for allowing contract farming.
- **Promote Regional Inequality**: Currently it is practiced in agriculturally developed states (Punjab, TN etc.) while States with highest concentration of small and marginal farmers are not able to reap its benefit.
- **Supply side issue**: Buyers have no incentive for contract farming with a large number of small and marginal farmers (average size of landholdings in India was 1.1hectare (census 2011)) due to high transactions and marketing costs, creating socio-economic distortions and preference for large farmers.
- **It’s a capital-intensive and less sustainable pattern of cultivation** as it promotes increasing use of fertilizers and pesticides which have detrimental impact on natural resources, environment, humans and animals.
- **Encourages Monoculture Farming**: This will not only impact soil health but also possesses risk of food security and import of food grains.
• It increases dependency of farmers on corporate for inputs, making them vulnerable.
• Predetermined prices can deny farmers the benefits of higher prices prevailing in market for the produce.

Significance
• Private participation in Agriculture: It encourages the private sector investment in agriculture to promote new farming technology, developing infrastructure etc.
• Improving Farmers Productivity: It enhances productivity and efficiency of farming sector, by improving access to better inputs, scientific practices and credit facilities, leading to increased farmer incomes, new employment opportunity and food security at large.
• It makes farming an organised activity and help in improving quality and quantity of production.
• Insurance to post harvest losses: Predetermined prices provides an opportunity to cover post-harvest losses, if any.
• Increasing Export: It encourages farmers to grow crops required by the food-processing industry and link Indian farmers to global supply chains, particularly in high-value horticulture produce and reduce food wastage significantly.
• Consumers benefit: Increasing marketing efficiency gains, elimination of intermediaries, reduction in regulatory compliances etc. can significantly reduce artificial shortages of produce and control food price inflation.

3.8. FERTILIZER SECTOR

Why in News?
• Recently, government had stressed the need of halving the urea fertilizer consumption by 2022.

Fertilizer industry in India
• India is second largest consumer of urea fertilizers after China.
• India also ranks second in the production of nitrogenous fertilizers and third in phosphatic fertilizers whereas the requirement of potash is met through imports since there are limited reserves of potash in the country.
• It is one of the eight core industries.

Issues involved

The issues in fertilizer sector involve multiple stakeholders such as:

Fertilizer Companies
• Costly Feedstock- around 20 per cent of existing urea capacity still operates on either naphtha or fuel oil as feedstock which involves higher capital cost than natural gas.
• High canalisation of urea import (fertiliser companies have to import it through only three agencies such as; State Trading Corporation, MMTC and Indian Potash Ltd.) often leads to mismatch in demand and supply of urea for the industry.

Policy and Legislative Initiative
• Nutrient Based Subsidy scheme 2010: applicable to 22 fertilizers (other than Urea) for which MRP will be decided taking into account the international and domestic prices of P&K fertilizers, exchange rate, and inventory level in the country.
• New Urea Policy 2015: focusses on making the domestic urea energy efficient and reducing the subsidy burden.
• Neem Coated Urea (NCU): mandatory 100% production of NCU, Benefit includes:
  o Slow down the dissolution of Urea into soil, resulting into less urea requirement.
  o Stop the illegal diversion of urea for non-agricultural usages such as ingredients in chemical industry, explosives, etc.
• Gas Pooling: pooling of Domestic Gas with Re-Gasified LNG which is imported. This would help provide natural gas at uniform delivered price to all natural gas grid connected Urea manufacturing plants.
• DBT in fertilizer industry: under the system, farmer’s purchase of fertilizer will be recorded on the Point of Sale (PoS) machines, thereafter subsidy to companies will be released to fertilizer firms.
• Removal of minimum production criteria for manufacturers of Single Super Phosphate (SSP) making them eligible for subsidy irrespective of quantity of SSP produced and selling for agriculture purposes.
• Soil Health Card: Farmers can get their own customised requirement of fertiliser in order to avoid irrational use of it.
Government

- **Fiscal state:** Fertiliser accounts for large fiscal subsidies (about 0.73 lakh crore or 0.5 percent of GDP), the second highest after food and only 35% of total subsidy reaches the intended beneficiaries.
- **Black Marketing:** Extremely low prices of urea also lead to its diversion to non-agricultural uses as well as smuggling to neighbouring countries such as Bangladesh, Nepal.

Farmers/Agriculture

- **High Cost:** Black marketing of fertilizer often leads to high input cost for small and marginal farmers.
- **Unscientific use:** under-pricing of urea relative to other fertilisers, especially P&K, encourages overuse/unscientific use resulting in significant environmental degradation, including depleted soil quality.

Steps that can be taken

- **De-canalising** the import of urea is need of the hour which would allow fertiliser supply to respond flexibly and quickly to changes in demand.
- **Secure long-term fertiliser supplies**-from locations where energy prices are cheap, such as Iran following the example of the Fertiliser Ministry’s joint venture in Oman.
- **Rationalising the subsidies**- Subsidy on different products should be fixed in a manner that the corresponding retail prices encourage farmers to use fertilisers in balanced proportion.
- **Better targeting**- of poor tenant farmers and sharecroppers for fertiliser subsidies on the basis of assessing poverty—based on landholdings or some other measure is need of the hour.
- **Promotion of organic fertilizer**- would create a win-win situation for entire spectrum of stakeholder in fertilizer sector such as; better yield to farmer’s products, avoid negative impact on environment, cut down subsidies burden on government and improve fiscal prudence of economy.

3.9. ENERGY ACCESS

**Why in news**

Recently, International Energy Agency (IEA) has released Energy Access outlook along with the World Energy Outlook (WEO).

**Energy Access Scenario**

- **Definition:** IEA defines energy access as “a household having reliable and affordable access to both clean cooking facilities and to electricity, which is enough to supply a basic bundle of energy services initially, and then an increasing level of electricity over time to reach the regional average”.
- India is world’s third largest energy consumer after the US and China.
- In 2014, 1.06 billion people lived without access to electricity—270 million was in India.
- India has the world’s largest electricity access deficit followed by Nigeria and Ethiopia. However it is also a power surplus country and was a net exporter of electricity in 2016-17.
- 25% (45 million) of rural households across the India have no electricity.
- Currently, about 2.8 billion people lack access to clean cooking and 2.3 billion

**Highlight World Energy Outlook report**

- By 2040, global energy demand will be 30% higher than today and global energy-related carbon emissions will increase by 5%.
- Renewables will make up 40 % of total power generation by 2040.
- Rise in Electric vehicle segment won’t impact oil demand drastically by 2040.

**About India**

- India will account for almost one-third of global energy growth by 2040 and account for 11% in global share by 2040
- Share of coal in the power mix will decrease to less than 50% by 2040.
- Universal Access to electricity by 2020s from current level of 82% of electrification.
- India’s refining capacity would grows by around two-thirds by 2040, becoming third-largest refining centre behind the US and China.

**About International Energy Agency (IEA)**

- It was founded in 1974, as an autonomous agency, which seeks to promote energy security among its member countries through collective response to physical disruptions in oil supply, and to provide authoritative research and analysis on ways to ensure reliable, affordable and clean energy.
- **Four Focus Area:** Energy Security, Economic Development, Environmental Awareness, Engagement Worldwide.
- India is an associated member to IEA.
Benefits of improved energy access

- **Sustainable Development Goal:** Access to energy services is critical for advancing human development, furthering social inclusion of the poorest & most vulnerable in society and to meeting many of the SDGs.
- **Improving Standard of living:** Providing energy for all would significantly improve the lives of those without access and boost their economic prospects.
- **Clean cooking fuel:** Providing access to clean cooking for all will lower the premature death from present 2.8 million people per year to 1.8 million by 2030. It would also lead to women empowerment as they can now be engaged in more productive activities and can acquire new knowledge and skills.

Challenges to increasing energy access

- **Finance:** Energy for all will require $786 billion in cumulative investment in the period to 2030, equal to 3.4% of total energy sector investment over the period. This seems to be difficult with lagging worldwide economy and increasing pressure of NPA’s on Indian economy.
- **Poor grid connectivity:** With the increasing role of renewable in energy mix, there is a need for expanding grid connectivity infrastructure for last man connectivity.
- **Quality of Electricity Access:** Electricity access is about affordability and reliability whereas some States in India have struggled to provide less than ten hours with electricity access per day to households.
- **Rural-Urban gap in access:** In India only around 71% of all households have electricity with considerable rural-urban gap (see infographic).

Way forward

- **Policy push:** Implement policies that encourage a wide range of solutions and business models, and encouraging entry of new entrants with innovative ideas.
- **Facilitate rural electricity access** by creating suitable conditions for off-grid investment, mini-grid and by making provision for subsequent connection of decentralized solutions to the grid.
• **Tapping renewable energy**: Decreasing costs for renewable energy technologies and adequate energy efficiency measures offer an opportunity for countries to be creative about clean energy access expansion.

• **Hybrid systems**: using renewable energy sources together with batteries or a diesel generator for achieving universal electricity access.

• **Encouraging Private investment**: Private investment along with Public finance will be required to meet the need for investment in clean energy infrastructure and improved energy efficiency.

• **Productive uses of electricity** are required in agricultural, commercial, and industrial activities for electricity access programs to be transformative.

• **Energy efficient appliances** need to be promoted to reduce the energy investment costs and to increase affordability of electricity access programs (UJALA program).

### 3.10. METHANOL ECONOMY

#### Why in News?

- Recently, government has stressed the need to adopt "Methanol" as an alternate to fossil fuel and bedrock for energy security.

#### Background

- Country’s 90% of demand of methanol is met by the import due to lack of domestic production unit and availability of cheaper methanol in international market.

- India imports 99% of its methanol from Iran and Saudi Arabia where methanol is produced from easy and cheaply available natural gas.

- China is the leading producer of Methanol in the world.

- India has the 5th largest coal reserves (feedstock of methanol) which can be utilised for methanol and DME (Dimethyl ether) production.

#### Need of Methanol

- **Huge fossil consumption**: India is the 6th highest consumer of fossil fuel and would become 3rd largest consumer by 2030. Adoption of methanol will minimise fossil consumption e.g. Methanol will reduce 20% diesel consumption by next 5-7 years.

- **Reducing import Bill** of crude oil and other petroleum products to the tune of over 5000 Crores annually in next 3 years.

- **Environment**: Fossil fuels increase GHG Emissions. Methanol on the other hand produces no particulate matter, no soot, almost nil SOx and NOx emissions.

#### NITI Aayog Road Map for Methanol Economy

- **Methanol Economy Fund**- has been created with a corpus of 4,000-5,000 crore to promote production and use of the clean fuel.

- **Indigenous Technology**- Production of methanol from Indian high ash coal from indigenous Technology, in large quantities and adopting regional production strategies would be promoted.

- **Waste-to-Energy**: Promoting use of agricultural stubble, Stranded Gas & Municipal Solid Waste etc. for methanol production can give almost 40% of methanol production. It will also complement Swachh Bharat Mission.

- **Increasing the use in Transportation**: Methanol economy concept can be capitalised by automobile companies under Make in India initiative. This will result in greater FDI flow and increase in Employment.

- **Methanol for Clean Cooking Fuel goal**: in order to ease out the import burden of LPG due to programme such as Pradhan Mantri Ujjwala Yojana (PMUY), methanol or DME blending with LPG or complete adoption of methanol as cooking fuel is visualised by NITI Aayog.

---

**About Methanol**

- It is known as wood alcohol, it is colourless, obtained both naturally and artificially, biodegradable, flammable, poisonous, and renewable source of energy.

- It is a single carbon compound made from the destructive distillation of wood and also produced from coal, natural gas, biomass (i.e. products which are capable of producing syngas),

- **Use**: in organic synthesis, as a fuel, solvent, and antifreeze.

- Certified as fuel by Bureau of India Standards 2016.

- The gaseous version of Methanol – DME (Dimethyl ether) can be blended with LPG.

**Government Initiatives**

- Efforts have been initiated towards Policy which calls for 15% blending of methanol in petrol.

- Coal India Limited (CIL) has unveiled its plan to set up a coal based methanol plant in West Bengal.

- India has successfully converted a two wheeler engine, a Genset, power weeder (agriculture equipment) and is in process of converting many internal combustion engines to Methanol, including railways and marine.
• **Other Uses** – such as methanol as fuel in Industrial Boilers, telecom tower Gensets, producing various chemicals like formaldehyde and acetic acid.

**Way-forward**

• **Huge investment in infrastructure**– as methanol as a fuel is corrosive to some metals, including aluminium.
• **Gradual Adoption of Methanol**- **First** it is imperative to have a sufficient amount of methanol production and its supply to industries. **Second**, once a threshold level of confidence is reached, there should be simultaneous development of flexi-fuel vehicles which would be able to run on methanol/DME fuel blends.
• **Outsource the** manufacturing facilities for methanol/DME in Iran or Qatar as both these countries having huge reserves of natural gas can provide the same at very low prices.
• **Integrated Energy Production**: Government must set up a mega coal based complex for production of power, methanol and fertilizer in an integrated manner which would significantly reduce the cost of various commodities produced.

### 3.11. DBT IN POWER SECTOR

**Why in news?**

• The government of India has decided to implement **direct benefit transfer in the power sector**.

**Proposed Reforms**

• **Targeted Approach** - DBT would limit benefits to electricity consumers by making the subsidy structure more targeted to the needs of poorer sections of the society. Likewise in LPG segment, certain identified categories of consumers (general and agricultural) would get cash in their accounts.
• **Calculation** - This cash payment will be equivalent to the level of subsidy announced by the state government for per unit of consumption of electricity. The state would decide the subsidy according to the average consumption data of a particular set of consumers.
• **Implementation** - It is to be first rolled out under a pilot project while the full rollout will only take place by 2019 when state discoms are expected to wipe out their losses and start generating profit under UDAY.
• **Making Discoms Responsible** - To make Discoms more responsive, any disruption in electricity will be penalized post March 2019.
• **Improving Consumer Functions** - To improve efficiency and reduce losses, 100% metering is to be achieved and government is doing away with any human interface in consumer facing functions such as metering, billing and collections.

**Need for DBT**

• **Loss Making Discoms** – Despite the launch of **UDAY (Ujwal Discom Assurance Yojana)**, Discoms continue to pile up losses. Tariff structures haven’t changed much and have failed to recover full costs. Also, the discoms won’t be allowed to recoup more than 15% of their losses through any tariff increase post March 2019.
• **Cross-subsidization** - Discoms provide subsidy through the method of cross-subsidization. In other words, state governments subsidize the electricity tariff of all households by keeping the tariff for commercial and industrial consumers high.
• **Unfair Pricing** – While fairly well-off individuals (who are capable of paying the tariff) profit from cross-subsidization on one hand, business growth is deterred due to high input costs on the other.
• NITI Aayog recommended introducing DBT in electricity distribution in 2016 itself.

**Benefits**

• It would ensure that subsidy reaches the poorer sections of society thereby plugging leakages.
• The proposed tariff rationalization will help pull the discoms out of losses and recover input costs.
• It would also result in reduction of cross-subsidies borne by the industry thereby boosting business and pushing Make in India drive.

**Challenges**

• Comprehensive metering is yet to be carried out especially in backward and rural areas (the targeted consumers for DBT)
• Bio-metric identification (Aadhaar) of poorer sections is incomplete. Also, financial inclusion is still lacking at many places.
• Ghost beneficiaries need to filtered out.

3.12. GUIDELINES FOR PROCURING WIND POWER

Why in News?
Recently government has issued Guidelines for procurement of wind power under Section 63 of the Electricity Act, 2003.

Background
• India has set an ambitious target of reaching 175 GW of installed capacity from renewable energy sources including 100 GW from solar and 60 GW from wind by the year 2022.
• Earlier, respective State’s electricity regulatory commission used to fix the prices, at which wind energy companies would sell energy which used to be normally around 4-6 per unit.
• Wind Energy under Concurrent List: Several auction initiatives had failed in the past by state government, due to the absence of central guideline required under Section 63 of the Electricity Act, 2003.

Highlight of guideline
• It provide framework for procurement of wind power through a transparent process of bidding including standardisation of the process and defining of roles and responsibilities of various stakeholders.
• It aims to enable the distribution licencees to procure wind power at competitive rates in a cost effective manner.
• Guidelines are applicable for procurement of wind power from
  ✓ Grid connected wind power projects (WPP) of 5 MW and above at one site with minimum bid capacity of 25 MW for intra-state projects.
  ✓ Individual size of 50 MW and above at one site with minimum bid capacity of 50 MW for inter-state projects.
• It has introduced a payment security mechanism that guarantees a partial compensation to wind power developers even if power is not transmitted to the grid.
• Penalty to power developer if it fails to provide prescribed Capacity Utilisation Factor (22% minimum) agreed at the time of signing of the Power Purchase Agreement.
• These regulations shall be applicable only for new projects.

Challenges
• Land Availability: The prices of ideal sites for projects have increased after a push for renewable energy.
• Poor transmission and unavailability of grid for power transmission have impacted the growth of wind energy sector.

Some Facts about Wind energy
• India’s overall installed capacity is 329.4 GW, with renewables accounting for 57.472 GW (April 2017).
• In the country's renewables mix, contribution of wind power is at 56.2% (32.3 GW), and solar power is at 21.8 % (12.5 GW).
• India is at 4th position in term of wind power installed capacity after China, USA and Germany.
• According to the National Institute of Wind Energy, India’s installable wind energy potential is 302 GW with towers of a height of 100 metres.
• India’s Integrated Energy Policy projects 800 GW installed capacity in 2031-32 out of which 40%(320 GW) will come from renewable energy.
Government Steps to promote wind energy

- **National Offshore Wind Energy Policy**: It paves the way for setting up of offshore wind power projects and research and development activities, in waters, in or adjacent to the country, up to the seaward distance of 200 Nautical Miles (EEZ of the country) from the base line. It removes the land availability barrier for wind power generation and utilizes 7600km coastline in India.
- **Guidelines for Development of Onshore Wind Power Projects**: To facilitate development of wind projects in an efficient, cost-effective and environmentally benign manner.
- **Renewable purchase obligation** specified in the Electricity Act, 2003 has given fillip to the enhancement of wind-generators in India.
- **Green Energy Corridors Project**: Power evacuation and transmission infrastructure for renewables is being augmented as part of the “Green Energy Corridors” project.
- **Draft Wind-Solar Hybrid Policy**: It aims to add wind-solar hybrid capacity of 10 GW by 2022.

3.13. SUSTAINABLE ROOFTOP IMPLEMENTATION FOR SOLAR TRANSFIGURATION OF INDIA (SRISTI)

**Why in news?**
- To accelerate the deployment of rooftop solar power in the country, the Ministry of New and Renewable Energy (MNRE) has prepared a concept note on ‘Sustainable Rooftop Implementation for Solar Transfiguration of India (SRISTI)’.

**Background**
- Government has set a target of reaching 100 GW of solar power installed capacity in the country by 2022, of which 40 GW is targeted through solar rooftop.
- For promotion of solar rooftop, the Ministry is implementing Grid Connected Rooftop Solar (RTS) Power Programme. States/UTs have also taken conducive policy and regulatory measures.
- **Present status** - The programme was expected to support installation of 4,200 MW RTS plants in the country by year 2019-20.
- So far, 2047 MWp capacity RTS plants have been sanctioned under the Programme and only about 845 MWp aggregate capacity plants has been installed.
- The **following major issues were identified for slow progress**
  - Multiple tenders by different agencies and subsequently considerable delay in tendering.
  - Involvement of multiple stakeholder viz. SNAs (State Nodal Agencies), DisComs, PSUs, Developers etc.
  - Reluctance of DisComs due to revenue loss; availability of net meter etc.
  - Lack of mandatory notification (only 4 State have made mandatory)/lack of State policies and uniform regulation
  - Degradation in quality of system due to cost cutting by bidders for L1 matching (matching the lowest price) and frequent bidding.

**Details of concept note**
- **DisComs as an implementing agency in Phase-II**: To address the above issues, and especially the fact that the consumer had to approach multiple agencies for getting a roof top installed on the roof top, the DISCOMS and its local offices will act as the nodal points for implementation of the programme.
- **Performance based financial support to DisComs to accelerate deployment of RTS plants within their distribution**
• Central Financial Assistance will be provided only for installation of roof top solar plants in residential sectors and there will be a cap on subsidy for residential as well as other sectors.
• Sector wise targets - Commercial and industrial sector will set up 20,000 MW, the government, Residential, Social and the Institutional sector will set up 5,000 MW each.

3.14. INDIA CHALLENGES CHINA AS WORLD'S BIGGEST LPG IMPORTER

Why in news?
India is set to surpass China as the biggest importer of liquefied petroleum gas (LPG).

Details
Reasons for rise in LPG import in India:
• Government’s drive to replace wood and animal dung fires for cooking with LPG. India aims to increase LPG usage to cover 80% of its households by March 2019, against 72.8% as on 1 April 2017.
• Rising use in cars following increased tax on petrol/ diesel
However, India's average monthly imports in 2017 of about 1.7 million tonnes are well still behind China's 2.2 million tonnes, but it has jumped ahead of third-placed Japan on about 1 million tonnes. China, India and Japan together make up about 45 per cent of global LPG purchases.

LPG scenario in India
Demand scenario - India’s consumption of LPG during the FY2017 was 21.55 million tonnes, registering a 9.8% growth from the previous year. Demand for the fuel may touch 35 million tonnes by 2031-32 due to increase in penetration of cooking gas connections in rural areas.
Supply scenario - 11 million tonnes came from imports (51%). LPG imports will rise over the next three years to 16-17 million tones.
• India mainly imports LPG via term contracts from major Middle Eastern producers which have so far enjoyed a virtual supply monopoly.
• Recently India has signed a pact with Iran to import LPG. It is also importing LPG from USA and is in talks with Bangladesh for the same.

Other facts
Difference between LPG and LNG

<table>
<thead>
<tr>
<th>Components</th>
<th>liquefied petroleum gas (LPG)/ Autogas</th>
<th>liquefied natural gas (LNG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main: propane, butane, Other: propylene and butylene.</td>
<td>LNG is natural gas stored as a super-cooled (cryogenic) liquid. When compressed in high pressure tanks, it is known as CNG. Main: methane Other: hydrocarbons such as ethane and propane as well as other gases such as nitrogen, helium, carbon dioxide, sulphur compounds, and water vapour.</td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>It is produced as a by-product of natural gas processing and petroleum refining.</td>
<td>drawn from gas wells or in conjunction with crude oil production</td>
</tr>
<tr>
<td>Properties</td>
<td>• Unlike natural gas, LPG is heavier than air, and thus will flow along floors and tend to settle in low spots, such as basements. Such accumulations can cause explosion hazards. • Advantage: LPG has a higher calorific value - energy content - than natural gas. • LPG can be compressed into a liquid and stored or transported in a cylinder or larger vessel more easily. • Challenge with LPG is that it can vary widely in composition, leading to variable engine performance and cold starting performance.</td>
<td>• Natural gas is lighter than air and thus will normally dissipate in the case of a leak. • The advantage of LNG is that it offers an energy density comparable to petrol and diesel fuels, extending range and reducing refuelling frequency. • The disadvantage is the high cost of cryogenic storage on vehicles and the major infrastructure requirement of LNG dispensing stations, production plants and transportation facilities.</td>
</tr>
</tbody>
</table>
The National Highways Authority of India was constituted by the National Highways Authority of India Act, 1988. It is under the aegis of Ministry of Road, Transport and Highways. It is responsible for the development, maintenance and management of National Highways entrusted to it and for matters connected or incidental thereto.

National Highways Development Programme (NHDP) was launched in 1998 with the objective of developing roads of international standards which facilitate smooth flow of traffic.

### 3.15. NATIONAL HIGHWAY INVESTMENT PROMOTION CELL

**Why in news?**

- National Highways Authority of India has created the National Highways Investment Promotion Cell (NHIPC).

**Need**

- **Funds for Bharatmala:** The government has set the target of constructing **35,000 km of National Highways in the next five years** under the Bharatmala project which requires an investment of Rs. 5.35 crore.
- **Private Investment:** NHIPC is required for attracting domestic and foreign investment.

**PPP Models Used Under Road Construction in India**

- **BOT (Build-Operate-Transfer):** The private partner is responsible to design, build, operate (during the contracted period) and transfer back the facility to the public sector. The government starts paying to the private party after the commercial launch of the project. DBFOT (Design-Build-Finance-Operate-Transfer) is one of its variants.
- **BOT-Toll:** Similar to BOT, the only difference is that the private party is allowed to recover his investment through toll collection. In this case, government does not pay anything to the private party.
- **Engineering, Procurement and Construction (EPC) model:** Procurement of raw material and construction costs are met by the government. The private sector’s participation is limited to the provision of engineering expertise.
- **Hybrid Annuity Model (HAM):** It is a mix of BOT and EPC models. The government will contribute the 40% cost of the project in the first five years through annual payments. The remaining 60% is paid after the completion of the project as variable annuity depending upon value of the assets created.

**Objectives of NHIPC**

- The cell will engage with global institution investors, constructions companies, developers and fund managers in order to build investor participation in road infrastructure projects.
- NHIPC will work in close co-ordination with various departments and ministries as well as various apex Business chambers such as CII, FICCI, ASSOCHAM and more thereby providing synergy in investments.

**Bharatmala Pariyojana**

- It was approved in October 2017 but would only take off by December 2018. **It is the second largest highway construction project after NHDP** under which 50,000 km of highways roads were targeted.
- Roads built under the project would include state highways, national highways and some state roads across the country. It will also subsume 10,000 km of NHDP.
- Bharatmala aims to improve connectivity among economic corridors, border areas and other areas. It will ensure quicker movement of cargo and boost exports.
• The project is to be funded through debt funds, private investment or from central road fund or toll collection.
• The main agencies tasked with the construction are the National Highways Authority of India, National Highway and Industrial Development Corporation and State Public Works Department.

3.16. PLANS FOR BACKWARD DISTRICTS

Why in news?
• The government has come out with tailor made action plans for the first ranked list of 115 backward districts.

More on News
• Under this initiative, senior level government officers have been nominated as Prabhari officers to act as a bridge between the Centre and States in addressing the specific developmental needs of the districts. This would ensure better accountability in the long-term.

Need for Special Attention to Backward Districts
• **Bridge Intra-regional and Inter-regional Divide** - With the gap between rural-urban divide widening, human development index and various developmental studies, the government aims to model a scheme in order to uplift the backward and balance intra-regional and Inter-regional development.
• **New India** - Development of these backward districts is essential in order to achieve the vision of New India by 2022. Inclusive development and improving the liveability of all are integral part of this vision.
• **Failure of Older Schemes** - An older scheme, Backward Region Grant Fund (BRGF) launched in 2007 was delinked from central support in 2015 as it failed to meet its vision. It consisted of 272 districts.

Challenges
• **Empowering the local economy** - Pro-industry development model might not work for every backward district because a local economy that depends on ecology cannot be empowered through industrialisation.
• **Social norms** - Changing social mindsets and norms that have been continued since generations is another big challenge. This is especially true for schemes of the social sector.
• **Structural change** - Enabling technology driven schemes in districts where digital literacy is negligible.

### Key Parameters for Evaluation

![Key Parameters for Evaluation](image)
3.17. SHIP-BREAKING INDUSTRY

Why in News?
- Recently, government has proposed a revision in the Shipbreaking code 2013.

Background of Ship-Breaking
- It is also known as beaching or ship-recycling/dismantling sector.
- It provides direct employment to nearly 40,000 people and earns annual revenues of around ₹2,500 crore.
- Alang in Gujarat, is the largest shipbreaking site in India, facilitated by geographical advantages such as wide continental shelf, mud free coast and vast expanse of intertidal zone, making it feasible to accommodate big ships.
- In 2016, India dismantled over 300 ships, which is more than ship dismantling in Bangladesh, Pakistan and China. But in terms of gross tonnage dismantled, Bangladesh is ahead of India.
- Steel generated from ship recycling meets the 1% to 2% of the domestic steel demand (Indian Bureau of Mine; 2015).
- It has been transferred from the control of Ministry of Steel to Ministry of Shipping, in 2014.

The issues pertaining to shipbreaking revolve around following facets:
- Labour
  - The lack of protection, safety equipment, traditional machinery for dismantling, muddy sand and shifting grounds of tidal beaches cannot support heavy lifting equipment which leads to high rate of casualty among the labours. For instance, 470 casualties were reported in Alang in the last three decades.
- Environment
  - Ships in India and Bangladesh are dismantled on the beach rather than on dry docks, which adds to the toxicity of the soil, water and air.
  - Shipbreaking activities release compounds such as Polyvinyl Chloride (PVCs) and Polychlorinated Biphenyls (PCBs) which are categorised as toxic substance under various laws.

Shipbreaking code 2013: it is a compressive plan, which provides;
- Recycling Plan: Code requires the recycler to formulate a plan with two components, the Ship Recycling Facility Management Plan (‘SRFMP’) and the Ship Specific Recycling Plan (‘SSRP’).
- Worker Safety and Health: by providing the availability of proper equipment, adequate open space, etc.
- Ensure labour welfare: applicability of ESIC, EPFO, workman compensation act etc.
- Recent proposed amendment under the code:
  - Effective categorisation of ship vessel with adoption of Hong-Kong convention 2009.
  - Practice should be in-sync with the requirements of the Atomic Energy Regulatory Board, put the onus on ship breakers to appoint a safety officer to ensure the protocols are met.

Hong Kong Convention 2009: establishment of an appropriate enforcement mechanism for ship recycling, incorporating certification and reporting requirements.
• **Fragmented actions**: Ministry of Shipping will be the nodal agency for Shipbreaking Code 2013, however, the Draft Code on Regulations for Safe and environmentally sound shipping recycling rests with Ministry of Steel.

**Way Forward**

• **Dry Docking**: shift from beaching to dry-docking is need of the hour and can be possible with long term plan keeping in loop all the stakeholder such as labour, shipbreaking organisation, government and environment advocates.

• **Integration**: Shipbreaking industry should be effectively integrated with Sagarmal Programme, Coastal Regulation Zone, and National Steel Policy 2017.

### 3.18. LEATHER INDUSTRY

**Why in News?**

• Recently, government has approved ₹ 2,600 crore special package for employment generation in the leather and footwear sector.

**Overview of leather Industry**

• India is the second largest producer of footwear and leather garments in the world and accounts for 12.93% of the world’s leather production of hides/skins.

• The entire leather product sector is de-licensed, and 100% FDI is permitted through the automatic route.

• The industry is highly labour intensive and employs around 3 million people out of which 30% are women.

**Challenges of leather industry**

• **Pollution**: Conventional tanning process leads to environmental pollution e.g. Liquid effluent from light leather processing contains organic matter, chromium, sulphide, and solid waste.

• **Raw material**: Economic Survey – 2016-17 pointed out non-availability of cattle for slaughter is an impediment for raw material supplier.

• **Lack of warehousing support**: from the government results into huge loss of quality raw material.

• **Research and Development**: Remoteness of government-backed R & D facilities from everyday practicalities of leather-making.

• **Trade barriers**: Indian leather export face both tariff and non-tariff barriers with various foreign markets.

**Way forward**

• **Up-gradation of tanning industries**: New industrial complexes should be designed, on a modern basis, consisting of intrinsic safety features, minimum use of water etc.

• **New Methodology of processing**: such as waterless chrome tanning methods (developed by CSIR), mixing of patented additives instead of lime and water in the conventional drum-tanning method would cut down both economic and environmental cost.

• **Labor law reform** is needed in terms of rationalisation of social security deposit for low wage employees.

**Policy Initiatives in leather industry**

• *Indian Footwear, Leather & Accessories Development Programme (IFLADP)*

• ‘Indian Leather Development Programme (ILDP)’ is being implemented by Department of Industrial Policy and Promotion (Ministry of Commerce and Industry).

• **Reform under FTP 2015-20**
  - Retention of Zero duty Export Promotion Capital Goods Scheme (EPCG).
  - Zero import duty on hides & skins, semi-processed as well as finished leather, raw and tanned fur-skins.

• **The Council for Leather Exports (CLE)** has been notified as a Central Agency for implementing Infrastructure projects (earlier a non-profit organisation).

• **Skill development**: Under Indian Leather Development Programme, primary skill development training has been imparted through the Footwear Design and Development Institute (FDDI).

• **Training** for various job roles in leather and footwear industry under National Skill Certification policy and Monetary Reward Scheme of the National Skill Development Corporation and Pradhan Mantri Kaushal Vikas Yojna (PMKVY).

• Central assistance of 125 cr. given for setting up Mega Leather Clusters at Kota Mandal, Nellore district, Andhra Pradesh.
• **Rational use of law**- governing the cattle and livestock is needed e.g. recent complete ban on slaughter house in prominent leather production state caused huge loss to leather industry.
• **Bigger push**-should be given to Free Trade Agreement with Europe and major trade agreement extension towards U.K.

### 3.19. SCHEME FOR CAPACITY BUILDING IN TEXTILES SECTOR

**Why in News?**
- Recently, Cabinet Committee on Economic affairs has approved a new scheme for capacity building in textile Sector (SCBTS).

**About the SCBTS**
- The scheme intended to provide placement oriented skill programme, for organised sector and enhance livelihood opportunity by skill-upgradation for traditional sector.
- It will cover entire value chain of textile excluding Spinning & Weaving in organized Sector.
- The Scheme will have a span of three year i.e. 2017-2020 with an outlay of ₹ 1300 Cr.
- It will be implemented through textile industry and recognised public and private training institutes of textile sector.
- The scheme will have National Skill Qualification Framework (NSQF) training courses.
- Job role wise skilling targets for various levels will be available such as; entry-level courses, up-skilling/re-skilling (supervisor, managerial training, advanced courses for adapting technology etc), recognition of prior learning (RPL).
- Skilling requirement in the traditional sectors such as handlooms, jute etc. will be considered as special projects and will be supported further for entrepreneurial development through provision of MUDRA loans.
- Successful trainees will be assessed and certified by an accredited Assessment Agency. At least 70% of the certified trainees are to be placed in the wage employment and post placement tracking will be mandatory under the scheme.
- Funding to the institution will be available only when the Internal Complaints Committee to be constitute under the Sexual Harassment of Women at Workplace Act, 2013, is in place.

<table>
<thead>
<tr>
<th>National Skill Qualification Framework (NSQF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- It is a framework to organize qualifications according to a series of levels of knowledge, skills and aptitude.</td>
</tr>
<tr>
<td>- It aims to obtain uniformity in the outcomes associated with different qualifications across institutions.</td>
</tr>
<tr>
<td>- NSQF is operationalised by National Skill Development Agency.</td>
</tr>
<tr>
<td>- It will also facilitate Recognition of Prior Learning (RPL) that is largely lacking in the present education and training scenario.</td>
</tr>
</tbody>
</table>

### 3.20. PRADHAN MANTRI GRAM SADAK YOJANA REVIEW

**Why in news?**
- The Pradhan Mantri Gram Sadak Yojana (PMGSY) was reviewed completing almost 17 years since its launch.

**Background**
- PMGSY was launched by the Government of India in 2000 **to provide connectivity to unconnected habitations as part of a poverty reduction strategy**.
- Under the scheme, about 1.78 lakh eligible habitations with a population of 500 in the plains and 250 in the hilly areas are planned to be connected by all-weather roads.
- It is a **100% centrally sponsored scheme which involves both new construction and upgradation.**

**Achievements under PMGSY**
- Around 1,30,974 habitations have been connected under PMGSY which along with nearly 14,620 habitations that have been connected through state government programmes accounted for **82% connected habitations.**
- Work is in progress in all the remaining but **1700 habitations and it is expected to achieve 100% connectivity of eligible habitations by March 2019.**
The department has also launched the GIS mapping of the all rural roads of the country.

At the time of approval, States are opting for minimum 15% roads with green technologies like use of waste plastic, fly ash, copper & iron slag etc. Nano Technology products are also being used for stabilization of roads.

**3.21. FINANCIAL SYSTEM STABILITY ASSESSMENT (FSSA) AND FINANCIAL SECTOR ASSESSMENT (FSA)**

**Why in news?**

As part of Financial Sector Assessment Programme (FSAP), the IMF and WB has released the Financial System Stability Assessment (FSSA) and Financial Sector Assessment (FSA) for the Indian financial system.

**Details**

- The FSAP assessment acknowledges that India has recorded strong growth in recent years in both economic activity and financial assets with size of the financial system remaining broadly stable in terms of GDP at about 136 per cent.
- The report acknowledges many efforts by Indian authorities like tackling Non-Performing Assets (NPAs), recent recapitalization measures for banks and introduction of special resolution regime, formalization of National Pension System (NPS) and making the pension sector regulator statutory, passing of Insolvency and Bankruptcy Code and setting up of Insolvency and Bankruptcy Board of India (IBBI).
- It also appreciates initiatives in financial inclusion, digitization, strengthening banking supervision, improving regulation in securities market and enhancing investment in infrastructure sector.

---

**Financial Sector Assessment Programme**

It is a joint program of the International Monetary Fund (IMF) and the World Bank, which undertakes a comprehensive and in-depth analysis of a country’s financial sector.

- Since September 2010, it is being undertaken in 25 jurisdictions (now 29), with systemically important financial sectors, including India, every five years.
- This was the second comprehensive FSAP conducted for India. Last FSAP for India was conducted in 2011-12.
4. SECURITY

4.1. NIC-CERT SETUP

Why in news?
Government inaugurated the new body National Information Centre-Computer Emergency Response Team (NIC-CERT) to prevent and predict cyber-attacks on government utilities.

Highlight
- It is a dedicated body to detect, prevent and mitigate the impact of cyber-attacks, by monitoring data across the NIC platform, including communication between all the levels of government and between governments to citizens.
- It will help in real time data monitoring and operate in close coordination and collaboration with sectoral CERTs and CERT-IN.
- Securing Digital India Initiative: NIC-CERT will help in securing digital initiative of government by preventing the threats and vulnerabilities arising due to cyberspace.

About National Information Centre
- It comes under Ministry of Electronics and IT (MeitY) and has a key role in e-governance at the national, state and district levels. Almost all Indian-government websites are developed and managed by NIC.

Indian Computer Emergency Response Team (CERT-In)
- It is a national nodal agency under the MeitY, which deals with cyber security threats such as hacking and phishing.
- The agency is tasked with the collection, analysis and dissemination of information on cyber incidents and even taking emergency measures for handling cyber security incidents.

4.2. BORDER PROTECTION GRID

Why in News?
- Government has announced the establishment of Border Protection Grid with Indo-Bangladesh Border (IBB) States.

Current Situation
- Indo-Bangladesh Border is 4096 km long with, so far in 3006 km border security infrastructure of fence, roads, floodlights and border out posts (BOPs) are in place.
- Out of 1090 km of non-secured border;
  - 684 km would be secured with fence and the related infrastructure.
  - 406 km of non-physical barriers covered by rivers etc. would be secured by a combination of electronic gadgets like radar, day-night camera, sensors all integrated in a command and control architecture.
- Border Protection Grid - The system will comprise of physical barriers, non-physical barriers, surveillance system, Intelligence agencies, State Police, BSF.
- It will be supervised by a State level Standing Committee under the Chairmanship of respective Chief Secretaries and will ensure greater help for the States in the overall border security.
4.3. ENDO-ATMOSPHERIC INTERCEPTOR MISSILE SUCCESSFULLY TEST FIRED

Advanced Area Defence (AAD) Interceptor Missile
- It is an indigenously developed single stage missile powered by solid propellant.
- The interceptor missile has a navigation system, mobile launcher, secure data link for interception, independent tracking and sophisticated radars.
- The missile is capable of destroying incoming ballistic missile at low altitude within 30 km of the earth’s atmosphere. **Significance of the successful Test**
- It has given boost to Indian defence sector’s move towards ‘Make in India’ and will help develop indigenous self-reliant defence manufacturing ecosystem.

Ballistic Missile Defence System
- It is being developed by DRDO in order to develop multi-layered ballistic missile defence system to protect the country against rouge attacks.
- India has developed a functional ‘iron dome’ Ballistic missile which comprise of Endo and Exo Atmospheric Missiles.
- Exo-atmospheric Missile system is also called Prithvi Air Defence which is capable of intercepting missiles at an altitude of 50-80 Km.
- Endo-atmospheric system is also called AAD is capable of intercepting missiles up to an altitude of 30 km.

4.4. INS KALVARI

Why in News?
INS KALVARI, India’s first Scorpene Submarine, was commissioned into Indian Navy.

Highlight
- It is India’s first indigenous stealth submarine.
- It can undertake multifarious types of missions, such as anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying and area surveillance.

Significance
- **Hard to detect:** The viscosity of tropical waters near Indian coast makes submarines difficult to detect.
- **Modernising Navy:** It is a significant step made towards modernising India’s ageing submarine fleet in the backdrop of China increasing its naval strength and making inroads into the Indian Ocean Region
- **Deterrence in India Ocean Region:** The submarines would form core of the navy’s future strategies and provide India the much needed deterrence in the Indian Ocean Region.
4.5. MILITARY EXERCISES

- **Ajeya Warrior** – It is an **Indo-UK joint military exercise** recently held at Mahajan Field Firing Range, Rajasthan.
- **Blue Flag** – For the first time, Indian Air force participated in 3rd edition of Blue Flag, a bi-annual multilateral exercise, in Israel.
5. ENVIRONMENT

5.1. DELHI AIR POLLUTION: RECENT INITIATIVES

Why in news?
During the last month, the Delhi government has submitted a detailed action plan to the National Green Tribunal on combating air pollution. The Central government has also released a Draft action plan for the same. The NGT has also issued its own action plan. The Environment Ministry has also launched a Regional Project to Tackle Stubble Burning.

5.1.1. DELHI GOVERNMENT ACTION PLAN

The Delhi Govt has proposed to take actions under three different categories of air quality. The measures listed would be implemented simultaneously with the Graded Response Action Plan (GRAP) notified by GoI in Jan 2017.

5.1.2. NGT ACTION PLAN TO COMBAT DELHI AIR POLLUTION

Why needed?
As per NGT,

- There was no uniformity and unanimity in action plans of the Central Pollution Control Board (CPCB) and the Supreme Court appointed Environment Pollution Control Authority (EPCA).
- The air-quality categorisation needs “clarity and certainty”. The tribunal said an approach which is precautionary and preventive rather than curative has to be adopted.

Details
The NGT divided air pollution into four categories:

(Values in micrograms per cubic meter)

Difference with other action plans

- CPCB has formulated six categories, which refers to different levels of pollution—good, satisfactory, moderately polluted, poor, very poor, severe and above severe. EPCA’s action plan, termed GRAP, has
formulated five categories. These are severe plus or emergency, severe, very poor, moderate to poor and moderate.

- NGT has sought the implementation of odd-even in the third category, but the current GRAP calls for the move at the emergency or highest stringency levels. Terming as “critical” levels of pollution in the third category, the NGT said immediate steps, including a ban on construction and introduction of the odd-even scheme, should be implemented by the authorities.
- When air pollution reaches environmental emergency levels, thermal power plants in Delhi should be shut down and sprinkling of water from the high-rise buildings should be done. There shall be complete prohibition on use of diesel generator sets. The trucks and heavy vehicles carrying material including trailers shall be prohibited from entering NCT of Delhi. Only the heavy vehicles carrying essential goods like medicine, food etc. would be permitted for the duration of environmental emergency.

**Criticism of NGT’s action plan**

- As per EPCA (Environment Pollution (Prevention and Control) Authority), the NGT Action plan may dilute the Centre-notified Graded Response Action Plan (GRAP) and create confusion among the implementing agencies.
- Also, GRAP measures are much more “stringent”. For example, the NGT defines environmental emergency when levels of PM2.5 and PM10 cross 600 and 1,000 microgram per cubic metre (ug/m3) respectively. Whereas under the GRAP, a pollution emergency is declared when PM2.5 crosses 300 ug/m3 and PM10 breaches 500 ug/m3.

**5.1.3. CENTRE’S "AIR ACTION PLAN - ABATEMENT OF AIR POLLUTION IN DELHI NATIONAL CAPITAL REGION"**

This is a draft action plan by a high-level task force, headed by principal secretary to Prime Minister, Nripendra Misra.

- The plan has 12 major actionable points (as given in infographic). It has underlined the need for "sustained and coordinated action" by state governments and central government ministries.

**Why important?**

There was frustration with multiple agencies issuing directions, leading to confusion and ineffective implementation. The direct intervention by the PMO would give the action plan more heft.

- Other important steps include conducting source-attribution studies for NCR every year. The lack of data has been a problem in implementation of pollution-control measures.

**Criticisms**

The proposed action plan lacks clearly defined targets of absolute reduction in pollution levels by a fixed percentage year on year with fixed responsibilities and accountability at various levels.

**Way forward**

- Punitive measures for polluting industries have to be stricter and clearly defined to fix accountability which seems to be very relaxed in the current plan.
• The PMO has to intervene at the national level to act on the rising air pollution and health crises; just a Delhi-NCR plan is not going to bring us a clean air nation.

### 5.1.4. ENVIRONMENT MINISTRY’S REGIONAL PROJECT TO TACKLE STUBBLE BURNING

The Environment Ministry has approved a regional project on ‘Climate Resilience Building among Farmers through Crop Residue Management’ under the National Adaptation Fund for Climate Change (NAFCC).

**Details**

- The project will be implemented following a phased approach. The first phase of the project has been approved at a cost of approximately Rs. 100 Crore for the States of Punjab, Haryana, Uttar Pradesh and Rajasthan.
- Initially, awareness generation and capacity building activities will be undertaken to encourage farmers to adopt alternate practices which would also help diversify livelihood options and enhance farmer’s income.
- A slew of technological interventions will be undertaken for timely management of crop residue. Implementable and sustainable entrepreneurship models will be created in rural areas through upscaling successful initiatives and innovative ideas.
- Based upon the performance in the first phase, the scope could be enhanced and more activities can be supported subsequently.

**Importance**

The problem of crop residue burning has been intensifying over the years. Increased mechanization, declining number of livestock, long period required for composting and no economically viable alternate use of residues are some of the reasons for residues being burnt in field. This has implications for global warming, adverse impact on air quality, soil health and human health.

### 5.2. EXCESSIVE NITROGEN IN ATMOSPHERE

**Why in news?**

- Indian Nitrogen Assessment report was released by an NGO Society for Conservation of Nature (SCN).

**Importance of Nitrogen**

- Nitrogen is a naturally occurring element that is essential for growth and reproduction in both plants and animals. It comprises about 78% of the Earth’s atmosphere (See Nitrogen cycle in Infographic).

**Highlight of the report**

- **Reducing Food productivity:** Excessive and irrational usage of fertilizers has brought down the yield of crops, becoming counterproductive to the very purpose of its usage.
- **Inefficient intake of fertilizers by food crops:** Only 33% of the nitrogen applied to rice and wheat through fertilisers is taken up by the plants in the form of nitrates.

---

**Fact about Nitrogen pollution in India**

- Agriculture is the main source of nitrogen pollution in India followed by Sewage and organic solid wastes.
- Ammonia concentration in the atmosphere over India is the highest in the world due to cattle population and excessive fertilizer use.
• **Polluting Groundwater:** Leaching of fertilizer has increased the nitrate concentration in groundwater of Punjab, Haryana and western Uttar Pradesh exceeding the limits prescribed by the World Health Organization (WHO).

• **Potent Greenhouse Gas (GHG):** Nitrogen in the form nitrous oxide (N2O) is a 300 times more potent as a GHG as opposed to CO2.

• **Economic impact:** India loses nitrogen worth US $10 billion per year as fertiliser value (through subsidy), while its health and climate costs are pegged at US $75 billion per year.

• **Health impact:** Blue Baby Syndrome, reduced functioning of the thyroid gland, Vitamin A shortages etc.

• **Acid Rain:** Nitric acid with H2SO4 causes acid rain, which negatively affects crops and soils.

• **Eutrophication:** Due to large amounts of fertilizers run-off resulting in formation of a dead zone.

• **Ozone depletion:** Nitrous oxide (N2O/ laughing gas) is considered as a dominant ozone-depleting substance emitted by humans.

• **Smog Formation:** Nitrogen Pollution emitted from industries aid in smog formation.

**Way Forward**

• **Recycling of industrial and sewage waste** could decrease 40% of fertilizers usage in country. It could also lead to production of food more sustainably and open new economic opportunity in organic manure segment.

• **Increasing Nitrogen Use Efficiency (NUE):** By applying fertilizers in the proper amount, at the right time of year and with the right method can significantly increase NUE. Relative improvement in current rates of NUE by 20% would have net economic benefits of US $170 billion per year globally.

• **Reducing fertiliser subsidy:** According to the report of the Commission for Agricultural Costs and Prices (CACP), subsidy on urea should be reduced,

---

**International Initiatives**

- **Gothenburg Protocol:** It aims to Abate Acidification, Eutrophication and Ground-level Ozone and is a part of is part of the Convention on Long-Range Transboundary Air Pollution.
  
  **Objective:** To control and reduce emissions of sulphur dioxide (SO2), nitrogen oxides (NOx), ammonia (NH4), volatile organic compounds (VOCs), and Particulate Matter (PM) that are caused by human activities.

- **Kyoto Protocol:** It aims to reduce the emissions of the Green House Gases such as Methane (CH4), Nitrous oxide (N2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF6) and carbon dioxide(CO2).

- **International Nitrogen Initiative (INI) -** It is an international program, set up in 2003 under sponsorship of the Scientific Committee on Problems of the Environment (SCOPE) and from the International Geosphere-Biosphere Program (IGBP) to optimize nitrogen’s beneficial role in sustainable food production.

---

**Nitrogen Use Efficiency (NUE)** is a term used to indicate the ratio between the amount of fertilizer N removed from the field by the crop and the amount of fertilizer N applied.
while increasing it on P&K to arrest the hugely adverse NPK ratio.

- **Promoting precision Agriculture**: Use of hi-tech approaches to use fertilizers in most efficient and effective manner.
- **Buffers**: Planting trees, shrubs and grass around fields, especially those that border water bodies, can help by absorbing or filtering out nutrients before they reach a water body.
- Other steps could also be taken like **Conservation tillage** (to reduce soil erosion), Managing livestock waste, Drainage water management etc.

### Steps taken to control Nitrogen pollution

- **Mandatory neem-coated urea production**: Neem-coated urea releases nitrogen at a slower pace giving plants time to absorb it, hence leading to an optimal usage.
- **Soil Health Card**: It provides information to farmers on nutrient status of their soil along with recommendations on appropriate dosage of nutrients for improving soil health and its fertility. It has led to decrease in consumption of Nitrogen in agriculture.
- **Bharat Stage Norms**: It aims to regulate the harmful emission from vehicle. like carbon monoxide (CO), unburnt hydrocarbons (HC), Nitrogen Oxides (NOx) and Particulate matter (PM).

#### 5.3. ELECTRIC VEHICLE

**Why in news**

Recently, SIAM (Society of Indian Automobile Manufactures) released a White Paper on Electric Vehicles.

### Government initiative for Electric Vehicles (EV)

- **India’s Electric Vehicle (EV) Mission 2030**: Government plans to have an all-electric fleet of vehicles by 2030.
- **National Electric Mobility Mission**:
  - It aims to achieve **national fuel security** by promoting hybrid and electric vehicles in the country.
  - It targets 6-7 million sales of hybrid and electric vehicles year on year from 2020 onwards.
- **FAME-India (Faster Adoption and Manufacturing of (hybrid & Electric vehicles in India) scheme**: To support the hybrid/electric vehicles market development and its manufacturing eco-system to achieve self-sustenance by subsidizing electric vehicle purchases on an annual basis.
  - Scheme is proposed to be implemented till 2020
  - The scheme has four focus areas viz. technology development, demand creation, pilot projects and charging infrastructure.
- **Automotive Mission Plan 2026**: It aimed at bringing the Indian Automotive Industry among the top three of the world in engineering, manufacture and exports of vehicles & components; growing in value to over 12% of India GDP and generating an additional 65 million jobs.
- **Green Urban Transport Scheme**
  - It focused to reduce the emission of harmful carbon gas from the transportation, especially from government owned transport facilities.
  - Under this scheme, government plans to launch the eco–friendly transportation facilities in urban areas across the nation which run without damaging climatic conditions

### Other Steps taken by government

- EVs are levied with 12% GST and no cess, versus 43% tax for luxury vehicles and hybrid vehicles.
- It allowed electric vehicles (EVs) for commercial purposes **without any permit**.
- It directed state-owned power utilities to set up **fast-charging station**.
- Country’s first **multi-modal electric vehicle project** was recently launched in Nagpur for public transport.

### Need for promoting EV in India.

- **Boost to Make in India Initiative**: It will make Indian automobile industry a leading global hub for design, manufacture and export of pure electric vehicles.
- **Fighting climate change**: A vehicle powered by low-carbon electricity rather than coal will help in keeping total global warming below 2 degrees Celsius.
- **Achieving INDC target**: India can save 64% of energy demand from the road sector for passenger mobility and 37% of carbon emissions in 2030.
- **Decrease in oil import bill**: Reduction in import of crude oil will roughly save Rs3.9 lakh crore by 2030.
- **Cost effective**: According to **Bloomberg New Energy Finance**, electric cars would become cheaper than conventional cars without government subsidies between 2025 and 2030.
Concern

- **Source of funding**: EV segment requires huge investment initially, whereas Automobile manufacturer are already under pressure due to implementation of Bharat Stage VI norms from 2020 and banks in India are cautious over new lending due to increasing NPA’s.
- **High cost of Batteries**: On an average, it costs around 40-50% of a typical mass segment electric vehicle.
- **Affordability**: India’s affordability index (population’s ability to afford to purchase a particular item) is lower than developed economies due to lower per capita income.
- **Available infrastructure**: Plug in point for charging are necessary before promoting electric vehicle in country.
- **Time consuming**: It still takes longer to charge an electric vehicle than it does to refuel a conventional car at the pump.
- **Sector Suitability**: Heavy-duty truck transportation and aviation, will remain difficult to electrify without drastic advances in battery technology.
- **Chemical pollution**: Lack of eco-friendly disposal facilities of batteries in India to curb pollution.

Way forward

- **Tapping green fund**: Many multilateral financial institutions like Soft Bank of Japan provide cheaper loans for eco-friendly projects.
- **Improving infrastructure facility**: Better charging facilities, efficient electric transmission infrastructure and integration of renewable energy into electricity grid would be a sustainable option for addressing infrastructure deficit.
- **Encouraging local manufacturing**: Positive policy environment will encourage Indian automotive industry to become world class manufacturer with a competitive strength in terms of scale, quality, cost and technology for electric vehicles and their critical components.
- **Increasing Public awareness**: as there is a direct correlation between knowledge of electric vehicles and its adoption.
- **Battery Swapping**: as recommended by NITI Aayog could significantly reduce the cost of EV and would save the precious charging time.
- **Providing fiscal incentive**: NITI AYOG recommended incentivizing efficient new vehicles by penalizing inefficient ones.
- **Alignment with National Solar Mission**: Batteries in EVs can be a viable option for storing power generated under mission [100 GW solar energy by 2022].
- **Electric public transport**: Implementing the provision of Green Urban Transport Scheme would result in Electric feet of transportation across the nation.

### 5.4. ENVIRONMENT IMPACT ASSESSMENT

**Why in News?**

- Government has issued a draft notification to amend the Environment Impact Assessment (EIA) notification, 2006.

**Highlights of Proposed Amendments**

- **Increases the ambit of state government authorities** to grant environmental clearances (ECs) particularly related to mining projects involving non-coal minerals and minor minerals, as well as river valley/irrigation projects.
  - Central authority will grant clearance only to those non-coal mining projects requiring 100 or more hectares of land lease against earlier criteria of 50 or more hectares.
  - Now, minor minerals, requiring more than 25 but less than 100 hectares of land, fall in B1 category while those above 100 hectares fall in A category. Proposals regarding lease areas of less than 5 hectares remain under district authorities.
  - For river valley and irrigation projects, states can grant clearance to projects involving Cultural Command Area between 5,000 to 50,000 hectares as compared to 2000-10000 hectares earlier. Moreover, Projects involving CCA of less than 5,000 hectares would be classified under ‘minor irrigation projects.'
The requirements for coal mining projects remain unchanged

- **Special circumstances** such as for river valley projects falling in more than one state, the Central government would be the appraising authority.
- **Relaxation of Environment Clearance (ECs):** for the project involving changes in irrigation technology (having environmental benefits) which might lead to an increase in CCA but no increase in dam height or submergence, will no longer require ECs.

**Limitations**

- **Decentralization** of powers to state authority might lead to corrupt practices e.g. project developers may divide the big projects into phases, to avoid scrutiny at central level.
- **Lack of Expertise:** These agencies neither have the capacity to handle increased work load, nor the system of accountability is in place to ensure some transparency.
- **Conflict of Interest:** It has been found that majority of EIA process is funded by agencies whose interest lie in the faster ECs which may raise the question about credibility of EIA.
- **No Accreditation** - of experts who conduct the EIA, which might lead to fraudulent EIA and fudging of data for the private gains.
- **Involvement**- Limited involvement of public and government agencies in the initial phases hampers the EIA acceptability among the public.
- **Alternatives** of project, which are going to have lesser impact on environment, have not been suggested in majority of cases.
- **Local Knowledge**-Most reports of EIA do not heed to local knowledge or local input. Moreover majority of reports are not translated to local languages.
- **Lack of comprehensive data** - the data collection exercise is restricted to one session of the year and conclusion of EIA on the same data would be erroneous.

**Way forward**

- **Independent oversight authority**- should be constituted at central level, for checking the credibility of EIA.
- **Simplification**: of technical details in the EIA and more transparency in various clauses such as definition of adverse impact of project must be made clear.
- **Prior informed consent**: of local stakeholders such as villagers, urban local bodies, Panchayat body should be made compulsory clause while granting the ECs.
- **Robust Mechanism**: such as; Grievance Redressal Mechanism, Advisory Experts Committee and capacity building approach involving all the stakeholders is the need of the hour.

---

### About Environment Impact Assessment (EIA)

- It is a tool used to identify the environmental, social and economic impacts of a project prior to decision-making (United Nation Education Programme).
- It is notified under the Environment (Protection) Act 1986.
- EIA for Category A project requires clearance by Environment Ministry and for category B project State Environment Impact Assessment Authority (SEIAA) clearance is required.

### Process for EIA

- **Screening**
- **Scoping**
- **Impact analysis**
- **Mitigation**
- **Review of EIA**
- **Reporting**
- **Post monitoring**
- **Decision-making**

#### Strategic environment assessment

- It is the process by which environmental considerations are required to be fully integrated into the preparation of Plans and Programmes and prior to their final adoption.
- SEA represents a proactive approach to integrating environmental considerations into the higher levels of decision-making.

---

### 5.5. GLOBAL E-WASTE MONITOR

**Why in News?**

- Recently, **Global E-waste Monitor 2017** report was released by United Nations University (UNU), the International Telecommunication Union (ITU), and the International Solid Waste Association (ISWA).

**Highlights of the study**

- E-waste has increased by 8% from 2014 to 2016 and expected to rise again by 17% by 2021.
Only 20% of 2016’s e-waste is documented to have been collected and recycled. Nearly, 4% of e-waste was thrown into landfills, while the remaining 76% was likely incinerated, recycled informally or stored in homes.

The reasons for increase are increasing personal disposable income at global level, falling prices of electronic devices and shorter replacement cycle mobile phones and computers.

The report estimated that the value of recoverable precious materials like gold, silver, copper, platinum and palladium was $55 billion in 2016.

Continent wise ranking in term of E-waste production; Asia (18.2 Mt), followed by Europe (12.3 Mt), the Americas (11.3 Mt), Africa (2.2 Mt), and Oceania (0.7 Mt).

India produced 1.95 million tonnes of e-waste last year. The report has also warned about the health and environmental dangers from processing of e-waste by informal sector in India without proper safeguards.

E-waste Legislations: presently 66% of the world population is covered by national e-waste management laws, an increase from 44% that were covered in 2014.

E-waste and SDG are closely associated due to its impact on environmental protection (Goals 6, 11, 12, and 14), health (Goal 3) and employment (Goal 8).

Suggestion to reduce e-waste

- Statistics should be collected at the international level and organised for comparison to ensure that data is frequently updated, published, and interpreted.

- Move away from Take-Make-Dispose: Countries should come up with legislation to promote circular economy models in which the e-waste is treated as resource rather than waste.

- 3-R strategy: Countries should promote the Reduce, Reuse Recycle.

- Legislation on e-waste should encourage a better product design at the production stage.

5.6. CHINA LAUNCHES NATION CARBON MARKET

Why in news?

Recently China formally launched its National Carbon Market by setting a carbon price on the country’s largest greenhouse-gas emitter.

Emission Trading

- It is a market based approach to control air pollution by creating tradable pollution credits to add profit motive as an incentive for good performers unlike the unlike the traditional methods of penalty.

- ‘Emission Trading’ as a concept was introduced under the Kyoto Protocol, Article 17 as central element in form of Clean Development Mechanism. Under the mechanism the countries which have extra credits to spare can sell them to the countries which have over-shot their targets.

- In India, Perform Achieve Trade (PAT) was introduced in 2012 under National Mission on Enhanced Energy Efficiency (NMEEE) in National Action Plan on Climate Change (NAPCC).

  - It aims to improve energy efficiency in industries by trading energy efficiency certificates in energy-intensive sectors.

Related Information

International Telecommunication Union: Geneva based, agency of United Nation, coordinate technical and policy matters related to global telecommunications networks and services. India is its member.

International Solid Waste Association: Vienna based, NGO

What is E-waste?

- It refers to electrical and electronic equipment (EEE) and its parts that have been discarded by its owner as waste without the intent of re-use.

- Common hazardous materials found in e-waste are: heavy metals (such as mercury, lead, cadmium etc.) and chemicals (such as CFCs/chlorofluorocarbon or various flame retardants).

- 12% of total e-waste constitute of telecom sector.

- India is 5th largest producer of e-waste.

China’s National Carbon Market

- China’s National Carbon Market has been launched to cover the heavily polluting power sector of the country as a mechanism to reduce carbon emission in the country.

- Under the trading system the power plants will be issued with an allowance to emit a certain amount of carbon dioxide. The individual plants which emit less than their target through clean practice and become more efficient can trade their excess permit to other generators.

- At present, the European Union’s emission trading scheme is world’s largest.
• The 2010 amendment Energy Conservation Act (ECA) provides a legal mandate to PAT and is being administered by the Bureau of Energy Efficiency which sets mandatory and specific targets for energy efficiency.
• PAT provides the option to trade any additional certified energy savings with other designated consumers to comply with the Specific Energy Consumption reduction targets.
• The Energy Savings Certificates (ESCerts) so issued can be traded on special trading platforms - Indian Energy Exchange and Power Exchange India.

5.7. INVASIVE ALIEN SPECIES

Why in news?

Recently, National Conference on the Status of Invasive Species in India was organised by Zoological Survey of India and the Botanical Survey of India in which ZSI announced a list of alien invasive animal species.

Findings of Zoological Survey of India:
• ZSI has made a list of 157 species of Invasive Alien Species (IAS) out of which 58 are found on land and freshwater habitat and 99 are found in marine ecosystem.
• Common Alien Animal Species found in India are –
  o African Apple Snail – found in Andaman and Nicobar Island, now spread across the whole country
  o Papaya Mealy Bug – massively affected papaya crop in Assam, West Bengal and Tamil Nadu
  o Cotton Mealy Bug – threat to cotton crops in Deccan
  o Amazon sailfin catfish – responsible for destroying fish population in wetlands
  o Orange Cup-Coral – originated in Indo-East Pacific, now also found in Andaman and Nicobar Island, Gulf of Kutch, Kerala and Lakshadweep.

What are Invasive Alien Species?
• “An alien species is a species that is established outside of its natural past or present distribution, whose introduction and/or spread threaten biological diversity” Convention of Biodiversity (CBD).
• According to IUCN, around 5% to 20% of alien species become invasive and is second most serious threat to the biodiversity after global warming.
• IAS are found in all taxonomic groups such as animals, plants, fungi etc. and can affect all types of ecosystems.
• The most common characteristics of IAS are –
  o Rapid reproduction and growth
  o High dispersal capability
  o Ability to survive on various food types in wide range of environmental conditions
  o Ability to adapt physiologically to new conditions (phenotypic plasticity)
• Spread of IAS has become a threat due to -
  o Increased movement of people and goods around the world (globalisation)
  o Escape from farms and horticulture
  o Through ship ballast water
  o Spread through man-made corridors such as canals.

Steps taken to control Invasive Alien Species (IAS)
• Article 8(h) of CBD and Aichi Target 9 aim to control or eradicate alien species which threaten ecosystems, habitats and species.
• Global Invasive Species Program is supporting to implement Article 8(h) of CBD and also working to address the global threat to IAS.
• India is also a party to CBD and Aichi Target. It has also formed the National Biodiversity Action Plan in 2008 to achieve these targets.
• IUCN’s Invasive Species Specialist Group has also been working to promote and facilitate the exchange of IAS information and knowledge across the globe and ensure linkages between policy making and flow of knowledge.
• IUCN has also developed a number of global databases which provide critical information on IAS such as Global Invasive Species Database and the Global Register of Introduced and Invasive Species.
• The international commitment had also been reaffirmed through the SDG 15 – which aims to control and eradicate IAS.

Milestones set by AICHI Target 2020
• By 2014, potential pathways for invasive alien species were to be identified using a risk assessment framework, and lists of the most harmful invasive species are developed;
• By 2016, actions to be taken to address the most important introduction pathways and the most serious invasions;
• By 2020, the measures which have been put in place to be assessed to determine their impact.
5.8. SCHEME FOR PROTECTION OF MAJULI ISLAND

Why in news?
Government has unveiled a scheme for protection of Majuli Island in Assam from flood and erosion from river Brahmaputra.

Need for Scheme
- Majuli island is a part of the alluvial flood plains of the Brahmaputra river.
- The Island is formed of soil consisting mainly of silt deposits. The soil is without cohesion and thus, susceptible to both floods and erosion almost every year.
- Problem of erosion has been more severe after the disastrous earthquake of 1950. However, some reclamation steps are being taken up by Brahmaputra Board.

Highlights of the scheme
- Scheme would be implemented by Brahmaputra Board under Ministry of Water Resources, Government of India.
- It would be funded by Ministry for Development of North Eastern Region (DoNER).
- Major components of the scheme are: Bank revetment with geo bags filled with earth / sand for a reach length of 27 km, RCC porcupine works, Construction of a sluice and construction of a Pilot channel for a length of 3.50 km.

5.9. BIRTH CONTROL FOR ANIMALS

Why in news?
Ministry of Environment and Forests has approved a 10-year research project to develop birth control measure to control increasing wild animal population.

Need
- Man-animal conflict: There have been increasing instances of conflict due to increasing population of wild animals, loss and degradation of wildlife habitats, climate change impacts, increasing human population pressure etc.
- Loss of livelihood: According to central government crops damaged due to stranded animals was 19,962 hectares in 2012.
- Declaration of vermin animals by government: There have been many instances when demands for declaration of vermin animal have been raised by people.
- Against Constitution: It is a duty of citizen (Article-51(A)) & State (Article 48(A)) to protect wildlife.
- Ethical issues with culling: It sets a bad precedence and perpetuates a tendency to use violence or kill anyone who harms you monetarily or otherwise.

Highlights of Project
- It aims to develop an immunocontraceptive drug to bring down the populations of Asian elephants, Nilgais, wild pigs and rhesus macaques.
• Wildlife Institute of India (WII) is the nodal agency for the project.

• Challenges: Identification of the appropriate drug, establishing a scientific way for administering drug to the animals etc.

### 5.10. JOINT TIGER CENSUS

#### Why in news?

India, Nepal, Bhutan and Bangladesh have agreed to conduct a joint census of Tiger population.

#### About the Joint Tiger Census

• Indian subcontinent is a home to about **80-90% of the tiger population of the world** with India being home to around **60% of global tiger population** (2500 tiger according to 2016 tiger census).

• In order to check the dwindling tiger population, it is necessary to hold a census which will result in better estimation of the situation.

• Between the borders of India and Nepal there are contiguous national parks such as –
  o Parsa National Park and Chitwan National Park in Nepal are connected with Balmiki National Park
  o Katarniaghat National Park in India is adjoined to Bardiya National Park
  o Dudwa National Park (India) is connected to Shuklaphant National Park in Nepal

• The authorities of participating nations will follow same protocol while conducting the census which will ensure avoiding chances of repeated counting of same tiger.

#### Conservation of Tiger

• According to data available there were about 100,000 tigers in the world forest in 1900 however their number declined to 3200 in 2010.

• Due to various threats faced such as habitat destruction, poaching etc. IUCN has specified tigers as **endangered in the Red List of Threatened Species**.

• According to the statistics from TRAFFIC, body parts of a minimum of 1,590 tigers were seized by the law enforcement officials between January 2000 and April 2014 across tiger range countries.

• India has showcased continued and persisting efforts to check the vanishing big cat population such as **Project Tiger**, establishing 50 tiger reserves etc. Thus, there has been an improvement in tiger population (1411 in 2006 to 2500 in 2016).

• However, according to government estimates 115 tigers have died in India in 2017 due to various reasons such as electrocution, poaching, poisoning, infighting, natural deaths, human-tiger conflict to rail/road accidents etc.

#### TRAFFIC

**It is a non-governmental organisation and a leading wildlife trade monitoring network aimed towards conservation of biodiversity and sustainable development.** It covers both Plants and Animals. **TRAFFIC’s 2020 goal is to reduce the pressure of illegal and unsustainable wildlife trade on biodiversity and enhance the benefits to wildlife conservation and human well-being that derive from trade at sustainable levels.**

### 5.11. INDIA AWARDED BY CITES

#### Why in news?

• India has been awarded a certificate of commendation by the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) for its effort to combat illegal wildlife trade.

#### More about the News

• The award was given to **Wildlife Crime Control Bureau (WCCB)** for its efforts

CITES:

• It is an international agreement between governments which aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

• It was drafted as a result of a resolution adopted in 1963 at a meeting of members of IUCN.

• The convention is legally binding on the parties such that domestic legislation ensures the implementation of CITES at the national level.

Wildlife Crime Control Bureau

• It is a statutory multi-disciplinary body established by the Government of India under the **Ministry of Environment and Forests**, to combat organized wildlife crime in the country.

• It was constituted in 2007 by amending the **Wildlife Protection Act, 1972**.

• It also assists and advises the Customs authorities in inspection of the consignments of flora & fauna as per the provisions of **Wildlife Protection Act, CITES and EXIM Policy** governing such an item.
in conducting and coordinating a species-specific wildlife enforcement operation - Operation Save Kurma.

Operation Save Kurma

- It was conducted to combat the proliferating illegal trade in live turtles and its parts from the country to destinations abroad.
- During the operation, approximately 16,000 live turtles/tortoises were seized and released back into the wild.

About Indian Turtles

- Turtles are listed in Schedule 1 of the The Wildlife Protection Act, 1972, Amendment 2002.
- Types of Indian turtles - Olive Ridley Turtles, Green Sea Turtle, Hawksbill Turtle, Leathery Turtle, Eastern Mud Turtle
- Loggerhead Turtle and Olive Ridley Turtle are listed as Endangered by IUCN (International Union of Conservation of Nature) while Leatherback Turtle is listed as critically endangered.

5.12. CYCLONE OCKHI

Why in news

- Recently, western coast of India was hit by the tropical cyclone Ockhi.

About Cyclone Ockhi

- It originated in the Bay of Bengal and intensified as it moved through the Arabian Sea, resulting into a cyclonic storm.
- Ockhi name is coined by Bangladesh, which means ‘eye’ in Bengali.
- According to Indian Metrological Department, It was a ‘very severe cyclonic storm’.

India’s vulnerability to Cyclones

- About 8% of the area in the country and 1/3rd of the population are vulnerable to cyclone-related disasters in country.
- India is exposed to nearly 10% of the world’s tropical cyclone and in the last 270 years, 21 of the 23 major cyclones (with a loss of about 10,000 lives or more) worldwide occurred over the area surrounding the Indian subcontinent (India and Bangladesh).
- Majority of cyclones originate in the Bay of Bengal and mostly hit the east coast of the Indian subcontinent.

NDMA guideline on cyclone management:

- Establishing a state-of-the-art cyclone early warning system (EWS) involving observations, predictions, warnings and user friendly advisories.
- Commissioning of the ‘National Disaster Communication Infrastructure’ (NDCI) to provide dedicated and failsafe communications to the National, State and District Disaster Management Authorities and officials concerned.
- Expanding the warning dissemination outreach by introducing ‘Last Mile Connectivity’, using VHF technology.

<table>
<thead>
<tr>
<th>INDIA METEOROLOGICAL DEPARTMENT</th>
<th>Tropical Cyclone Intensity Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATEGORY</td>
<td>SUSTAINED WINDS (3-min average)</td>
</tr>
<tr>
<td>Super Cyclonic Storm</td>
<td>≥ 120 kt ≥ 221 km/h</td>
</tr>
<tr>
<td>Extremely Severe Cyclonic Storm</td>
<td>90-119 kt 166-220 km/h</td>
</tr>
<tr>
<td>Very Severe Cyclonic Storm</td>
<td>64-89 kt 118-165 km/h</td>
</tr>
<tr>
<td>Severe Cyclonic Storm</td>
<td>48-63 kt 89-117 km/h</td>
</tr>
<tr>
<td>Cyclonic Storm</td>
<td>34-47 kt 63-88 km/h</td>
</tr>
<tr>
<td>Deep Depression</td>
<td>28-33 kt 51-62 km/h</td>
</tr>
<tr>
<td>Depression</td>
<td>17-27 kt 31-50 km/h</td>
</tr>
</tbody>
</table>

Increasing cyclone frequency in Arabian Sea:
According to scientist, extremely severe cyclones are becoming more frequent in the Arabian Sea particularly post-monsoon due to:

- Arabian Sea surface becomes warmer than the other ocean basins during post monsoon season.
- Weakening of winter monsoon circulation due to the interplay of global warming, climate variability and weather change.
Naming of cyclone in Indian Ocean

- World Meteorological Organisation (WMO) and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) started the tropical cyclone naming system in 2000.
- Eight north Indian Ocean countries — Bangladesh, India, the Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand, gave eight names each which was combined into a list of 64 names.
- The next cyclone will be named by India and it will be called ‘Sagar’.

Other Disaster Mitigating steps taken by government

- **ESSO-IMD (Earth System Science Organization-India Meteorological Department):** It is responsible for monitoring, detection and forecasting of weather and climate extremes including severe weather events such as cyclones, heavy rainfall, extreme temperature etc.
- **Indian Tsunami Early Warning System (ITEWS):** It provides tsunami advisories to Indian Mainland and the Island regions along with other countries in Indian Ocean rim, Australia & Indonesia.
  - It is managed by Indian National Centre for Ocean Information Services (INCOIS), an autonomous organisation under the Ministry of Earth & Sciences.
- **National Cyclone Risk Mitigation Project (NCRMP):** Objective is to undertake suitable structural and non-structural measures to mitigate the effects of cyclones in the coastal states and UT’s of India.
  - It is implemented National Disaster Management Authority (NDMA) under Ministry of Home Affairs(MHA), in coordination with participating State Governments and the National Institute for Disaster Management (NIDM).

### 5.13. URBAN FIRES

**Why in news?**

Recently many people lost their lives in the fire in a Mumbai rooftop restaurant.

**Context**

- In Uphaar cinema hall fire in New Delhi in 1997 59 people were killed as the exits had been blocked by unauthorised seating.
- In 2016, fire destroyed Delhi’s National Museum of Natural History thus doing the incalculable damage to anthropological heritage and specimens in it.
- Similar incidents in industrial units, hospitals, firecracker units or even in residential areas are also on the rise.

**Issues**

Fires are man-made disasters, which can occur as a consequence of a natural disaster like earthquake or as an individual disaster.

- **Urban Issues:** Urban issues like high population, overcrowding, unregulated commercial activities are frequently responsible for urban fires.
- **Carelessness and apathy:** According to data compiled by the Delhi Fire Service, maximum number of fire accidents occurs due to short-circuiting or faulty electrical appliances.
• **Shortage of fire stations** in rural areas and Indian cities as little less than 3,000 such units are operating against the requirement of over 8,500 which shows a deficiency of 65%.

• **Legislative Issues:** Maintenance of fire service is a municipal function but the Centre provides funds and training to improve the infrastructure and quality of manpower needed to tackle fire incidents.

• **Administrative Challenges:** A slow criminal justice process and rampant bureaucratic and political corruption have also contributed to the violation of building norms.

• **Challenges in Slums or illegal settlements:** In slums closely packed constructions, construction with inflammable materials, narrow lanes inhibiting access to fire engines, unauthorized electrical connections, unsafe wiring etc. increase the impact of fires.

**Suggestions**

• **Objective and impartial enquiry of fire incidents** to assess the cause and further the violator must be made to pay the damage if fire safety norms are not adhered to.

• **Standing Fire Advisory Council** has recommended setting up fire stations based on response time of 5-7 minutes in urban areas and 20 minutes in rural areas.

• **Shift from fire-fighting to fire prevention and mitigation** – Measures to prevent and mitigate can be divided into structural and non-structural.

• **Development of wildland-urban interface maps** i.e. mapping of areas where naturally fire-prone wilderness areas such as forests and shrublands are close to or even intermingled with, housing developments.

• **NDMA issued guidelines in 2012** to standardise the type of equipment and training of personnel to modernise and improve fire-fighting capabilities in the country. It also included enactment of fire Act and preparation of a comprehensive plan in every state.

• Further the training must be provided to fire officers in advanced techniques of firefighting and rescue, keeping in mind changes such as industrialisation, growth of industry and expansion of urban areas.

### 5.14. PROJECT ‘BLUE FLAG’ FOR BEACH CLEAN-UP

**Why in news?**

The environment ministry has launched a pilot project ‘Blue Flag’ for beach clean-up and development.

**Details**

Under the project, each state or union territory has been asked to nominate a beach which will be funded through the ongoing **Integrated Coastal Management Programme**.

- The prime objective is enhancing standards of cleanliness, upkeep and basic amenities at beaches.
- The govt is also striving for the ‘Blue Flag’ certification for such identified beaches. The ‘Blue Flag’ is a certification by the Foundation for Environmental Education (FEE) that a beach or sustainable boating tourism operator meets its stringent standards.

**Foundation for Environmental Education (FEE)**

The FEE is a non-governmental, non-profit organisation promoting sustainable development through environmental education. It was established in 1981.

- It is headquartered at Copenhagen, Denmark. It is active through five programmes; Eco-Schools, Blue Flag, Young Reporters for Environment (YRE), Green Key and Learning about Forests (LEAF).
- It is an international umbrella organisation with one national member organisation per country representing FEE on the national level and in charge of implementing FEE programs nationally. India is represented by **Centre for Environment Education, Gujarat**.
- It has established the **Global Forest Fund** to offset CO2 emissions from travel. The fund invests 90% of its income directly into tree planting and other CO2 compensation efforts that are combined with environmental education activities.
5.15. STAR RATING PROTOCOL FOR GARBAGE FREE CITIES

- The government recently launched the Star Rating Protocol for garbage free cities at a Workshop for Swacch Bharat Mission (Urban).
- It aims to enthuse the cities with a spirit of healthy competition to improve their overall cleanliness.
- It is different from the Swachh Survekshan ranking survey as it will allow multiple cities to be awarded the same star rating.
- The major focus in the ratings will be on waste storage and litter bin.
- An online database was also launched in order to capture the progress of states and cities on their SBM components, thereby enhancing the robustness and transparency of Mission monitoring.
6. SCIENCE AND TECHNOLOGY

6.1. BRAIN GAIN: INDIAN SCIENTISTS RETURNING TO INDIA

Why in news?
• According to the Department of Science and Technology, the number of Indian scientist working internationally and returning to India showed a 70 percent jump between 2012 and 2017.

Reasons for Brain Gain
• This has been primarily due to schemes such as Ramanujan Fellowship Scheme, Innovation in Science Pursuit for Inspired Research (INSPIRE) Faculty Scheme and the Ramalingaswami re-entry fellowship scheme.
• The launch of IPR Policy in 2016 has set a pace to resolve the IPR issues related to R&D in India.
• India is rapidly becoming a global design and developmental hub. Thousands of companies from around the world have set up their R&D centres in India.

Change in immigration rules of developed countries like UK and US could be one of the reasons of Indian origin scientist returning to India.

Importance of Brain Gain
• It will boost quality R&D in India at various levels thereby positively impacting the higher education sector.
• It would result in indigeneziation of science and technology and make India self-reliant in various fields.

Challenges to Brain Gain
• There is limited institutional capacity to absorb all interested Indian origin scientists living abroad. Of the 373 scientists, who got these scholarships between 2014 and 2016, only 125 were absorbed into their host institutions.
• Funding is another major obstacle for developing a favourable environment for quality research. India invests less than 1% of its GDP in scientific research.
• Micro-management of researchers and red tapeism has plagued some of the top institutions of the country.
• A disconnect between labs and academia: There is limited coordination between colleges and research facilities. Apart from PhDs students hardly anyone is seen in labs conducting research.
• The research in India occurs in silos, there is lack of integrated approach. The culture of industry-academic collaboration in India has not developed at par with other developed countries.
• Government has not yet come up with a uniform and integrated policy for research and development which could aggregate the efforts of various institutes.
• India is ranked 43 out of 45 countries in The International IP Index 2017 released by the US Chamber of Commerce, titled “The Roots Of Innovation”. It shows India’s dismal IP environment.

6.2. FREE SPACE OPTICAL COMMUNICATION

Why in news?
• X Development LLC, a subsidiary of Alphabet will supply and deploy two thousand cutting-edge Free Space Optical Communication (FSOC) links for Andhra Pradesh (AP) fiber-grid.

What is Free Space Optical Communication?
• It is an optical communication technology in which data is transmitted by propagation of light in free space allowing optical connectivity.
• Working of FSO is similar to OFC (optical fiber cable) networks but the only difference is that the optical beams are sent through free air or vacuum instead of glass fiber.
• It is a Line of Sight (LOS) technology. It consists of an optical transceiver at both ends to provide full duplex (bidirectional) capability.
• It is capable of sending up to 1.25 Gbps of data, voice, and video communications simultaneously through the air.

Advantages
• It has low initial investment and is a flexible network that delivers better speed than broadband.
• High data rate can be obtained which is comparable to the optical fiber cable’s data rate but error rate is very low.
• The extremely narrow laser beam enables having unlimited number of FSO links which can be installed in a specific area.
• It is a secure system because of line of sight operation. Therefore, no security upgradation is needed.
• There is no need for spectrum license or frequency coordination between users as it is required in radio and microwave systems previously.
• Electromagnetic and radio-magnetic interference cannot affect the transmission in FSO link.

Challenges
• The transmitted optical signal is affected by various limitations before arriving at the receiver such as misalignment errors, geometric losses, background noise, weather attenuation losses and atmospheric turbulence.

6.3. NASA’S SOFIA MISSION

Why in news?
• NASA’s flying observatory SOFIA is preparing for its 2018 campaign to study observations of celestial magnetic fields, star forming regions, comets and Saturn’s giant moon Titan.

More on news
Through observations from SOFIA scientists also aim to:
• study comet 46P/Writanen as it passes close to the Earth, to search for clues in the comet’s dust that may understand the evolution of the early solar system.
• understand how active black holes contribute to most luminous, distant galaxies.
• understand how magnetic fields affect the rate at which interstellar clouds condense to form new stars.
• understand how methane levels change with seasons in Mars.
Excitons
- When an electron which is seated at the edge of the crowded electron valence band gets excited and jumps over the energy gap into an empty conduction band, its leaves behind a hole in the valence band.
- The hole in the valence band acts as a positively charged particle and attracts the escaped electron.
- When the escaped electron with negative charge pairs with the hole, a composite bosonic particle – exciton is formed.

6.5. EMINID METEOR SHOWER

Why in news?
- Geminid meteor shower fell on Earth on December 12.

What is a Meteor Shower?
- Earth in its yearly motion around the Sun passes through a debris trail left behind by a comet. The debris heats up at it enters Earth’s atmosphere and burns up in bright burst of light, it is called meteor shower.
- Usually meteor shower happens due to the debris left behind by a Comet. However, it can happen due an asteroid as well such as in the case of Geminid Shower.
- Geminid Meteor shower is the dust particle of constellation of Gemini. Earth passes through the path of its parent asteroid 3200 Phaethon every year.

About 3200 Phaethon
- It is an Apollo Asteroid and has characteristics close to a comet.
- Sometime the orbits of an asteroid intersect with the orbit of Mars and Earth. The earth orbiting asteroids are called Apollo Asteroids.

6.6. ITCOoCEAN

Why in news?
- Recently government approved establishment of ITCOocean as Category-2 Centre (C2C) through an agreement to be signed with UNESCO.

About the Institute
- ITCOocean is being set up under commitment of Govt. of India in

Category 2 centres under the auspices of UNESCO are established and funded by Member States to contribute to the achievement of UNESCO’s objectives by way of global, regional, subregional or interregional activities. They are not legally a part of the Organization, but are associated with it through formal agreements between UNESCO and the Member State hosting the centre.

Intergovernmental Oceanographic Commission
- It was established in 1960.
- It is the only competent organization for marine science within the UN system.
- The purpose of the Commission is to promote international cooperation and to coordinate programmes in research, services and capacity-building, in order to learn more about the nature and resources of the ocean and coastal areas.
Operational Oceanography
It refers to the activity of systematic and long-term routine measurements of the seas and oceans and atmosphere, and their rapid interpretation and dissemination.

Important products derived from operational oceanography are:
- **Now casts**: provides the most usefully accurate description of the present state of the sea including living resources
- **Forecasts**: provides continuous forecasts of the future condition of the sea for as far ahead as possible
- **Hindcasts**: assembling long term data sets which will provide data for description of past states, and time series showing trends and changes

Thus, Operational Oceanography helps in translating the benefits of science into supporting day-to-day operations and providing information services to various sectors of the blue economy viz. fishing, disaster management, shipping and ports, coastal management etc.

Significance of the Institute
- **Research and Development** - The institute running from its interim facility has already trained more than 681 scientists including 576 from India and 105 from 34 other countries.
- **It will provide an opportunity for India to emerge as a leader in the Indian Ocean, forging cooperation among South Asian and African countries.**
- **The Centre will cater to the increasing worldwide need to build technical and management capacity in marine and coastal sustainability issues as well as efficient management and response to marine natural hazards.**
- **The Centre may also contribute to achieving Sustainable Development Goal-14 (conserve and sustainably use the oceans, seas and marine resources) and fulfil commitments to support Small Island Developing States, Least Developed Countries etc.**

---

**ALL INDIA TEST SERIES**

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

**PRELIMS**
- **General Studies** (हिंदी माध्यम में भी उपलब्ध)
- **CSAT** (हिंदी माध्यम में भी उपलब्ध)
  - VISION IAS Post Test Analysis™
  - Flexible Timings
  - ONLINE Student Account to write tests and Performance Analysis

**MAINS**
- **General Studies** (हिंदी माध्यम में भी उपलब्ध)
- **Essay** (हिंदी माध्यम में भी उपलब्ध)
- **Geography**
- **Sociology**
- **Philosophy**

> All India Ranking
> Expert support - Email/Telephonic Interaction
> Monthly current affairs

[Download the VISION IAS app from Google Play Store](https://play.google.com/store/apps)
7. SOCIAL

7.1. STATE OF THE WORLD’S CHILDREN 2017 REPORT

Why in News?


Introduction

- The capacity of digitalization to shape children’s life experiences grows as the children grow, which offers them limitless opportunities.
- At the same time, lack of access to technology compounds deprivation among children and various other groups, leaving them vulnerable to intergenerational cycles of disadvantage and poverty.
- The report argues for faster action, focused investment and greater cooperation to protect children from the harms of a more connected world – while harnessing the opportunities of the digital age to benefit every child.

Opportunities from Digitalization

- **Access to better education opportunities**- It has allowed children to participate in e-learning and to access a wide range of educational and learning content. The geographical extent of education too has expanded.
- **Education as a personalized experience**- It helps students to learn at their own pace and helps educators with limited resources provide students with better learning opportunities.
- **Training for Teachers for better results**- Blended learning, where ICT is supported by strong teachers can boost learning outcomes. Here, the vocational training programmes, for teachers, are areas where digital connectivity is crucial.
- **Social media activism & overall integration**- Children are also making their voices heard through blogging, for example- Malala Yousafzai. It has also helped minority groups feel more integrated in their communities and opened new windows for expression, networking, political activism and social inclusion.
- **Improve employability**- It improves employability through better educational opportunities as well as training and skill improvement programmes.
- **Opportunity for children with disability**- Mobile applications can help children and young people with disabilities be more independent.

Issues related to Digital Divide

- **Digital divide mirrors socio-economic divides**, between rich and poor, men and women, cities and rural areas, and between those with education and those without.
- **Economic Disparities**- The usage of internet in developed countries is double than the use in developing countries and way more when compared to least developed countries.
  - These inequalities within countries can reinforce existing inequities for children who cannot meet the demands of the digital age by preventing them from accessing opportunities discussed above.

Digital Childhoods- Digitalization has changed the way children pursue and conduct themselves and others in a major way, both for better and worse. Various changes observed are-

- Too much time spent on digital devices.
- Creation of a new generation gap where adults fear the impacts of technology on children while children believe that the adults are missing out opportunities.
- Increasing issue of whether or not can we trust the machines.
- A change in dynamics of friendship that has turned too passive due to social media, lacking real interactions.
- Some studies show the reduction in time spent on physical activities.
- There is also a rising debate on digital dependency, and impact on brain and cognitive processes of brain.

Risks are categorized into following forms-

- **Content risks**- Where a child is exposed to unwelcome and inappropriate content. This can include sexual, pornographic and violent images, etc.
- **Contact risks**- Where a child participates in risky communication, such as with an adult seeking inappropriate contact or soliciting a child for sexual purposes, or with individuals attempting to radicalize a child.
- **Conduct risks**- Where a child behaves in a way that contributes to risky content or contact. This may include children writing or creating hateful materials about other children, inciting racism or posting or distributing sexual images, etc.
• **Second level digital divide**- Even though the primary digital divide of access is narrowing, digital divides could be shifting to second-level divides **based on growing inequalities in digital skills** and **usage**.

• **While the zero-rating sites have** exempted certain sites from the customer’s data limit, they have raised concerns that it may not lead to an inclusive internet but rather the one which people use to upload posts and pictures, thereby not utilizing technology to its full potential.

• **Lack of useful online content in native language**- This may discourage internet usage for many people reducing its approachability, furthering knowledge gap.

**Concerns from Digitalization**

Digital connectivity has:

• Made children more accessible through unprotected social media profiles.

• Allows offenders to be anonymous – reducing their risk of identification and prosecution – expand their networks.

The risks, thus, identified are-

• **Cyberbullying** is defined as “wilful and repeated harm inflicted through the use of computers, cell phones and other electronic devices.”
  
  o In previous generations, children being bullied could escape such abuse or harassment by going home or being alone, no such safe haven exists for children in a digital world.

• **Online child sexual abuse and exploitation**- has been on a rise through-
  
  o **Peer-to-peer networks (P2P) and the Dark web** continue to facilitate the exchange of child sexual abuse material (CSAM). There are also new challenges, such as live-streaming of child sexual abuse and self-generated sexually explicit material, which are adding to the volume of CSAM.
  
  o Another factor contributing to the escalation in the live-streaming of child abuse is the **growing use of cryptocurrencies**, and end-to-end encrypted platforms for sharing media.

• **Online Vulnerability reflecting offline vulnerabilities**- Children who are more vulnerable offline are more vulnerable online including girls, children from poor households, etc.

**Way Forward**

• The internet reflects and amplifies the best and worst of human nature. It is a tool that will always be used for good and for ill. Our job is to mitigate the harms and expand the opportunities digital technology makes possible.

• To leverage the opportunity following steps need to be taken-
  
  o Provide all children with affordable access to high-quality online resources.
  
  o Protect children from harm online by proper guidance.
  
  o Safeguard children’s privacy.
  
  o Teach digital literacy to keep children informed, engaged and safe online.
  
  o Leverage the power of the private sector to advance ethical standards and practices that protect and benefit children online.
  
  o Put children at the centre of digital policy.

**Steps taken to fight such abuse, like**-

- **WePROTECT Global Alliance** to End Child Sexual Exploitation Online, leading technology companies, international organizations and 77 countries have made an urgent commitment to end child sexual abuse and exploitation through a coordinated response.

- **Microsoft** donated its **PhotoDNA technology** to the International Centre for Missing and Exploited Children.

**7.2. NATIONAL NUTRITION MISSION**

**Why in news?**

• The **Government of Indian** has approved setting up of the **National Nutrition Mission**.

Article 47 of the Constitution mentions the “duty of the state to raise the level of nutrition and the standard of living and to improve public health.”
Current Status

- Despite strong constitutional, legislative policy and programme commitments, India continues to struggle with high levels of maternal and child undernutrition.
- **Double Burden of Malnutrition**
  - **Undernutrition** - About 37% of our under-five children are underweight, 39% are stunted, 21% are wasted and 8% are acutely malnourished, according to a joint study by ASSOCHAM and Ernst and Young
  - **Overweight** - India is also ranked as the third most obese nation of the world after US and China, according to a WHO report of 2015.
- Malnutrition results not just from a lack of food but from a diverse set of interlinked factors linking healthcare, education, sanitation and hygiene, access to resources, women’s empowerment and thus requires multi-dimensional interventions.
- India pays an income penalty of about 9% to 10% due to a workforce that was stunted during their childhood.

About the Mission

- It would be executed with the Ministry of Women and Child Development (WCD) as the nodal ministry along with Ministry of Drinking Water and Sanitation and Ministry of Health and Family Welfare.
- **Implementation and Target**
  - The mission has a target to reduce **stunting, under-nutrition, and low birth weight** by 2 per cent per annum, and **anaemia** by 3 per cent annually.
  - It aims to focus mainly on children up to the age of 6 years, pregnant and lactating women, and adolescent girls.
  - It would also strive to achieve reduction in stunting from 38.4% (NFHS-4) to 25% by 2022 (Mission 25 by 2022).
  - It will be implemented in **three phases**: 2017-18, 2018-19 and 2019-20. 315 ‘high burden’ are to be covered in the first phase, 235 in next and the remaining in last.
- **Features**
  - **NNM as an apex body** will monitor, supervise, fix targets and guide the nutrition related interventions.
  - Mapping of various schemes contributing under malnutrition
  - ICT (Information and Communication Technology) based real time monitoring system
  - Incentivising states/UTs for meeting targets
  - Incentivising Anganwadi Workers (AWW) for using IT based tools and eliminating the need for registers
  - Measurement of height of children at Anganwadi Centres
  - Social Audits to track the health progress of the children
  - Setting-up Nutrition Resource Centres

### National Nutrition Strategy

**It is a 10-point nutrition action plan** that includes governance reforms and envisages a framework wherein the four proximate determinants of nutrition – uptake of health services, food, drinking water & sanitation and income & livelihoods – work together to accelerate decline of under nutrition in India.

**Key Feature of Strategy**

- It focuses to reduce all forms of malnutrition by 2030, with a focus on the most vulnerable and critical age groups.
- A decentralised approach will be promoted with greater flexibility and decision making at the state, district and local levels.
- The Strategy proposes to launch interventions with a focus on improving healthcare and nutrition among children and improve maternal care.
- Governance reforms envisaged in the Strategy include:
  - Convergence of state and district implementation plans for ICDS, NHM and Swachh Bharat,
  - Focus on the most vulnerable communities in districts with the highest levels of child malnutrition, and
  - Service delivery models based on evidence of impact.

### 7.3. NATIONAL STRATEGIC PLAN (2017-24) & MISSION SAMPARK

**Why in News?**

The Union Ministry of Health & Family Welfare on World AIDS Day launched-
- National Strategic Plan 2017-24, &
- Mission SAMPARK

More about News

- National Strategic Plan (2017-24) - It aims to strive, along with partners, towards fast track strategy of ending the AIDS epidemic by 2030 and is expected to pave a roadmap for achieving the target of 90:90:90.
- Mission SAMPARK - Aim is to trace those who are Left to Follow Up and are to be brought under Antiretroviral Therapy (ART) services. “Community Based Testing” will be taken up for fast-tracking the identification of all who are HIV positive.

Need for Strategy

- In 2016, India reiterated its commitment at the UNs’ High-Level Meeting on AIDS towards the goal of ‘ending the AIDS epidemic as a public health threat by 2030’, inclusive of the Joint United Nations Programme on HIV/AIDS (UNAIDS) Fast Track targets for 2020 as well as in line with the Sustainable Development Goals (SDGs) for 2030.
- Having already succeeded in achieving the targets of the Millennium Development Goals (over 50% reduction in annual new HIV infections and AIDS-related deaths), the goals of NACO remain those of the ‘Three Zeros’ - i.e. zero new infections, zero AIDS-related deaths and zero discrimination which form the basis of this strategic plan.
- It will herald the country to the midpoint of the 2030 goals.
- Structural Factors affecting AIDS response - Changes in the pattern of migration and improving use of Information and Communication Technology, have had varied impacts on the lifestyle of people and their behaviour towards risk of such diseases.

Provisions for protection of AIDS patients in India

Apart from various constitutional protections in terms of Fundamental Rights, there are other provisions for helping people with AIDS like:

- India is currently in the fourth (since 2012) phase of National AIDS Control Programme, launched with two principal objectives:

The National AIDS Control Programme (NACP), launched in 1992, is being implemented as a comprehensive programme for prevention and control of HIV/AIDS in India.

NACP-IV Components

Component 1: Intensifying and Consolidating Prevention services with a focus on High-Risk Group (HRG) and vulnerable populations.

Component 2: Expanding IEC services for (a) general population and (b) high risk groups with a focus on behavior change and demand generation.

Component 3: Comprehensive Care, Support and Treatment.

Component 4: Strengthening institutional capacities.

Component 5: Strategic Information Management Systems (SIMS).
What is Trachoma?
- It is a chronic infective eye disease caused by infection with the bacterium *Chlamydia trachomatis* which is transmitted through contact with eye and nose discharge of infected people, particularly young children who are most vulnerable to the infection.
- It is also spread by flies which come in contact with the infected person and is most common under poor environment, low personal hygiene and inadequate access to water.
- It is one of the causes of the avoidable blindness and one of the 18 Neglected Tropical Diseases (NTD).
- During 1950s, India was a hyperendemic to Trachoma. About 50%-80% children from North-west India were affected by it.

7.4. NATIONAL TRACHOMA SURVEY REPORT (2014-17)

Why in news?
Ministry of Health and Family Welfare has recently released National Trachoma Survey Report and also declared India Trachoma free.

Highlights of the Report
- The National Trachoma Prevalence Survey and Trachoma Rapid Assessment were conducted in collaboration with National Program for Control of Blindness & Visual Impairment (NPCB) in 27 high risk districts.
- According to WHO standards – Trachoma is considered eliminated if the prevalence of active infection among children below 10 years is less than 5% while in India its prevalence is only 0.7%.
- Therefore, India was declared Trachoma free and has also achieved the goal of Trachoma elimination under WHO GET2020 program.

Steps taken to Control Trachoma
- WHO’s SAFE (Surgery, Antibodies, Facial cleanliness,
Environmental modification) strategy (1997) and Global Elimination of Blinding Trachoma by 2020 to eliminate Trachoma.

- **GET2020**: a WHO International Alliance of interested parties who work for elimination of Trachoma also known as Alliance for Global Elimination of Trachoma by 2020.
- Inclusion of Trachoma as a priority under the disease control component of the WHO’s Global Initiative for the Elimination of Avoidable Blindness, Vision 2020—the Right to Sight.

### 7.5. MGNREGS ASSESSMENT

**Why in news?**

Recently a rapid assessment of MGNREGS and its impact on Sustainable Livelihoods was carried out by the Institute of Economic Growth, New Delhi

**Highlights of the Assessment:**

- There has been an increase in incomes of households and agricultural productivity.
- Households have also reported benefitting from availability of fodder on account of the water conservation works both in public and private lands of Small and Marginal Farmers.

**Other Positive impacts of MGNREGA**

- A NCAER study showed that the Act helped in lowering poverty by almost 32 per cent between 2004-05 to 2011-12. The poverty level among scheduled caste and scheduled tribes also decreased by 38 per cent and 28 per cent respectively.
- MGNREGA has played a much larger role in revitalizing the labour market in rural areas by increasing bargaining power and providing safety nets to workers.
- It has acted as the single most important instrument for empowering gram panchayats by giving gram-sabhas the mandate to plan their own works and providing untied funds to execute these works.
- Water-related assets created under it has also increased both the quantity and its availability of water for irrigation.

**Recent Efforts to Further strengthen MGNREGA**

- Geo-Tagging of over 2 crore assets has been taken in the last two years.
- About 6.6 crore workers have Aadhaar linked Bank accounts and 97% wages are paid through the Electronic Fund Management System (NeFMS).
- The accountability of programme has further improved through finalization of auditing standards, designing certificate programmes for social audits, selection of women SHG members as social auditors and efforts to build a cadre of certified internal auditors.
- Through effective convergence among schemes a range of innovative assets have been formed like construction of toilets, solid and liquid waste management, compost pits, road side plantation etc.

### 7.6. GANGA GRAM PROJECT

**Why in news**

Government has recently launched a Ganga Gram Project.

**Background**

- In August 2017, all 4,470 villages on the banks of the Ganges, located in Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal were declared open defecation-free (ODF).
- Out of these, 24 villages have been identified to transform them into Adarsh “Ganga Grams” by December, 2018.
- After achieving ODF target in Ganga Villages, implementation of solid and liquid waste management and other integrated activities are remaining tasks.

**Highlights of the Project**

- It has been launched under the Namami Gange Programme for sanitation based integrated development of villages with active participation of the villagers.
- Project envisages solid and liquid waste management, renovation of ponds and water resources, water conservation projects, organic farming, horticulture, and promotion of medicinal plants.
- Ministry of Drinking Water and Sanitation is the nodal agency for its implementation.
- **Ganga Swachhata Manch:** It has also been created for awareness creation, knowledge sharing, learning and advocacy for the Ganga Gram Project.

### 7.7. SCHEME FOR INTER-CASTE MARRIAGES

**Why in news?**

Government recently removed the income ceiling under Dr Ambedkar scheme for social integration through inter-caste marriage.

**More on news**

- According to the NCAER report 95% of the Indian marry within their caste. (2016)
- The scheme was introduced by the Ministry of Social Justice and Empowerment to financially support the newly wed couples in the initial phase who take the bold step of marrying inter-caste.
- It was started in 2013, to provide a onetime incentive of 2.5 lakhs to at least 500 inter-caste couples per year from the centre.
- Certain states such as Odisha, Haryana etc. already have similar incentive scheme for inter-caste marriages.
- The scheme also mandates that the fake information would be punishable by law.
- The Scheme aims to counter the Hindu practice of marrying on the “traditional grounds of Castes and Sub-Castes” and act as the first step towards destruction of Caste fabric in the Country.
- The target of 500 couples per year had not achieved so far due various reasons such as –
  - Low awareness among people and most of the proposals came from only few states such as Andhra Pradesh, Telangana and Maharashtra.
  - Requirement of proposal to be recommended by District Collector
  - The scheme only incentivises marriages registered under the Hindu Marriage Act and disregards registrations under Special Marriages Act.

### 7.8. MINORITY TAG

**Why in news?**

A committee under National Commission of Minorities (NCM) was set up to look into whether Hindus should get minority status where they are not the dominant religious group.

**Arguments put forward**

- It is argued that various other communities say Muslims are majority in Lakshadweep (96.20%) and J&K (68.30%) and Christians are majority in Mizoram, Meghalaya and Nagaland yet they enjoy Minority status.
• According to 2011 Census, Hindus are a minority in eight states i.e. J&K, Lakshadweep, Mizoram, Nagaland, Arunachal Pradesh, Manipur, Meghalaya and Punjab.

• But Neither central nor state governments have notified Hindus as a ‘minority’ under Section 2(c) of National Commission for Minority Act and thus Hindus in these areas are deprived of their basic rights as minorities.

Conclusion

• It is argued that to protect the rights of Hindus in areas they are a minority they need to be included among minorities. However, a counter argument says that numerical proportion of a population of a particular community in a State, distinguishable on religious grounds, cannot entitle it automatically to minority rights.

• The government needs to find a middle way to ensure that no community, irrespective of their caste, religious or linguistic affiliations, be exploited simply because they are numerically less in the region.

7.9. GAMING DISORDER

Why in news?

WHO has classified excessive gaming as a mental disorder under its 11th International Classification of Disease (ICD).

About Gaming Disorder

• According to the draft, Gaming Disorder is characterised by a pattern of persistent or recurrent gaming behaviour which may be both online or offline.

• ICD-11 includes only clinical description and not prevention and treatment.

• Effects of Persistent Gaming—
  o Impairment in personal, family, social, educational, occupational etc. important areas of functioning.
  o Increased expression of aggression, wrist and pain as found by study published by the Indian Journal of Psychological Medicine in 2016.
  o Symptoms of depression, anxiety, somatisation including sleep disorder and behavioural changes.

• After the instances such as Blue Whale and other dangerous games, WHO’s classification is a welcome move.

International Classification of Disease (ICD)

• It is WHO’s Diagnostic and Statistical Manual (DSM) which is a global health information standard for mortality and morbidity.

• It is used in clinical care and research to define diseases and study patterns, manage health care, monitor outcomes and allocate resources.

• In 1893 first international List of causes of Death was issued. Thereafter, since the formation of WHO in 1948 ICD is being published.

• ICD-10 was published in May 1990. The ICD 11 is due to be released in 2018.

7.10. UTKRISHT IMPACT BOND

Why in news?

United States Agency for International Development (USAID) has launched a Rajasthan Development Impact Bond

• Neonatal mortality includes deaths in the first 28 days of life.

• Infant Mortality Rate refers to the deaths of infants under age of one year per 1,000 live births (34 per 1,000 live births in 2016).

• Child mortality refers to death of children below 5 years per 1000 live births (50 per 1000 live births in 2015-16).

• Maternal mortality Rate refers to number of women who die as a result of pregnancy and childbirth complications per 100,000 live births in a given year (174 per 100, 000 live births in 2015).
Development Impact Bond (DIB)

- They are outcome based bond, under which donor pay back private investors investment with interest, if the service providers achieve pre-determined targets.

About the bonds

- It has been launched to reduce maternal and neo-natal deaths in Rajasthan by improving the quality of services at private healthcare facilities and adhere to the government’s quality standards.
- It is a world’s first Development Impact Bond (DIB) in healthcare and has been developed in a public-private partnership and will provide financial assistance to 440 small healthcare organisations.
- Target: To reach up to 600,000 pregnant women with improved care during delivery and save lives of up to 10,000 women and newborns by the next five years.

(Utkrisht Impact Bond) at the Global Entrepreneurship Summit in Hyderabad.
8. CULTURE

8.1. KUMBH MELA

Why in news?
Recently UNESCO has inscribed Kumbh Mela on its Representative List of Intangible Cultural Heritage of Humanity.

Kumbh Mela

- Kumbh Mela (Festival of Scared Pitcher) is the largest peaceful congregation of pilgrims on earth. It represents a syncretic set of rituals related to worship and cleansing in holy rivers.
- It is a Hindu festival which is observed during the Purnima (full moon) of month of Paush (December 22-January 20) after every 12 years on the banks of a holy river to take dip and perform various rituals.
- It is held every four years by rotation at:
  - Haridwar (banks of Ganga),
  - Allahabad (Confluence of Ganga, Yamuna and Saraswati),
  - Nashik (banks of Godavari) and
  - Ujjain (banks of Shipra).
- Knowledge and skills related to ‘Kumbh Mela’ are transmitted through the Guru-Shishya parampara (teacher-student relationship) by saints.
- Kumbh Mela can be traced back in history through the writings of 7th century Chinese traveller Hiuen Tsang who came to India during the rule of Harshavardhan. The festival was also popularised among people by the eighth century saint Shankaracharya.

UNESCO’s Lists of Intangible Cultural Heritage

- It is a list which is prepared to promote the intangible heritage and contribute to a greater awareness of their importance and was formed after Convention for Safeguarding the Intangible Cultural Heritage came into effect.
- Intangible cultural heritage means the practices, representations, expressions, knowledge, skills -- as well as the instruments, objects, artefacts and cultural spaces associated with them that communities, groups and, in some cases, individuals recognize as a part of their cultural heritage.
- Intergovernmental Committee for safeguarding of the Intangible Cultural Heritage meets and evaluates the nominations proposed by member states after which the List is published every year.
- UNESCO brings out two separate lists:
  - Representative List of the Intangible Cultural Heritage of Humanity – It is made up of those intangible heritage elements which bring out the diversity of culture.
  - List of Intangible Cultural Heritage in need of Urgent Safeguarding – It is made up of the intangible heritage elements which require urgent measures. It also helps to mobilize international cooperation.

It also brings out a Register of Good Safeguarding Practices which contains programs, projects and activities that best reflect principle of the Convention.

8.2. HORBILL FESTIVAL

Why in news?
- The Hornbill festival was recently celebrated in Nagaland in early December.

Hornbill in India
Nine different species of Hornbill are found in India in:
- Western Ghats (Maharashtra, Karnataka, Tamil Nadu and Kerala),
- Himalayan Foothills in Uttaranchal,
- North-east India,
- Narcondam island (Narcondam Hornbill) at the northern tip of Andaman and Nicobar Island,
- Madhya Pradesh, Andhra Pradesh, Bihar, Orissa and West Bengal.
About The festival

- Named after the Hornbill, a revered bird of Nagaland, the festival is known to be a celebration of the indigenous tribes of Nagaland.
- It is organized by the State Tourism and Art & Culture Departments of Nagaland.
- The festival was first celebrated in 2000 and has been celebrated every year since then.
- It is a powerful presentation of the Naga culture through traditional music, dance, and sports shows.
- The celebration of the Hornbill festival also coincides with the Statehood Day of Nagaland.
9. ETHICS

9.1. CONFLICT OF INTEREST

Conflicts of interest in both the public and private sectors has become a major matter of public concern worldwide. A ‘conflict of interest’ can be defined as when personal considerations have the potential to influence professional judgement in any professional activity be it research, administration, consultation etc. It raises various ethical issues such as

- **Undermining Professional ethics** – as responsibility of a professional to uphold the dignity and autonomy of the professions and accepting the professions’ self-imposed standards, may not be upheld.
- **Undermining organization's principles** – such as confidentiality, duty to conduct oneself in a way to preserve and protect the client's trust in a profession.
- **Questionable integrity** – Non-disclosure of any potential conflict of interest situation may lead to personal preferences influencing the decision making in an institution unfairly. It also affects ones reputation and trustworthiness as well.
- **Biasness** – The person in conflict of interest may lack an independent view in specific situations due to external factors influencing the performance.
- **Less reliability** – as conflict of interest may undermine objectivity, distort interpretation and reasoning. Thus, affecting performance of ones duties.
- **Corruption** – financial interest is one of the most common type of conflict of interest. Thus, abuse of power is often done to embezzle money.

But at times, certain conflict of interest may result into positive outcomes as well; such as whistleblower also faces a conflict of interest such as confidentiality & loyalty towards employer versus duty to warn the public of a serious harm or danger.

Conflict of interest, in general, does not necessarily imply wrongdoing. However, if they are not identified and managed appropriately, they can compromise ones work and the Organization's integrity. For these reasons, situations of conflict of interest must be avoided whenever possible, and where they cannot be avoided, they must be managed in an open and cooperative way. In this regard, OECD has given certain principles for managing conflict of interest:

- **Serving the public interest:** Integrity of official decision-making without any prejudice to religious, professional, party-political, ethnic, family, or other personal preferences.
- **Supporting transparency and scrutiny:** Public organisations should ensure consistency. An appropriate degree of openness and public scrutiny.
- **Promoting individual responsibility and personal example:** Public officials and public organisations are expected to demonstrate their commitment to integrity and professionalism through their application of effective Conflict of Interest policy and practice.
- **Engendering an organisational culture which is intolerant of conflicts of interest.**

9.2. ETHICS OF PRIVACY

Right to privacy has emerged as a fundamental right in India after a Supreme Court judgment which has necessitated an understanding of concept of privacy. It is needed to put a check on the abuse of power by the state such as mass snooping in USA. Privacy is generally understood as the right to be let alone, or freedom from interference. It is applicable to individuals as well as organisations. It involves respecting the boundaries and protecting one’s reputation. The general ethics of privacy includes:

- **Confidentiality** – The ethical duty of confidentiality refers to the obligation of an individual or organization to safeguard entrusted information from unauthorized access, use or disclosure.
- **Secrecy:** Right of people to conceal information about themselves that others might use to their disadvantage such as secret ballot is needed to help people vote fearlessly.
- **Personhood and autonomy:** It means person’s moral right to his or her self-determination. E.g. – sexual orientation of a person is his own personal affair.
• **Consent** – an individual has an opportunity to exercise control over personal information and has complete autonomy over his body, his property as well as his choices.

• **Sensitivity** – different types of personal data or information needs to be handled such as data shared through Adhaar has to be secured much more sensitively than lets say data collected in a health survey.

• **Trust** – It involves being accountable for information you hold of a third person in your personal or professional capacity. E.g. – protection of client’s information.

• **Solitude** – respecting the space of a person and his right to choose seclusion from the attention of others

• **Dignity & Freedom** – Privacy is intrinsic to one’s life and liberty and constitutes core of human dignity

However, collection of vast amount of data can also do common good such as collecting data in clinical trials help determine efficacy of a drug, having data of its citizens may help government track the notorious elements in society.

In contemporary times, internet technology especially social media is changing the concept of privacy. The values of privacy are changing. Privacy norms are moving towards more openness in public sphere. People, by choice are declaring their affairs, likes, dislikes etc. in public domain. This oversharin is becoming the norm in various sections. This makes the ethics of privacy a complex issue where values of private space differ from individual to individual.
10. MISCELLANEOUS

10.1. DARPAN PROJECT

Why in news?
The Union Ministry of Communications has launched DARPAN (The Digital Advancement of Rural Post Office for A New India).

Details
- DARPAN is an Information Technology (IT) modernization project. It offers core banking services to the account holders.
- The project intends to provide low power technology solution to each branch postmaster (BPM). This will enable each of approximately 1.29 lakhs branch post offices (BOs) to improve service delivery.
- The Project shall increase the rural reach of the Department of Posts and enable BOs to increase traffic of all financial remittances, savings accounts, Rural Postal Life Insurance, and Cash Certificates; improve mail operations processes by allowing for automated booking and delivery of accountable article.
- It will increase revenue using retail post business; provide third party applications; and make disbursements for social security schemes such as MGNREGS.
- As on date, out of 1.29 lakh Branch Post Offices (BOs) 43,171 Branch Post Offices have migrated under the “DARPAN”.

10.2. KIMBERLY PROCESS CERTIFICATION SCHEME

Why in news?
Recently, Kimberly Process Certification Scheme Plenary was held at Brisbane which resolved to create an Ad hoc Committee on Review and Reform.

More on news
- Ad Hoc Committee on Review and Reform has been established with India as the Chair and Angola as vice chair to review the main documents of KPCS to improve both administrative and financial functioning.
- India has also been appointed as the Kimberly Process (KP) Vice Chair for 2018 & Chair for 2019 in the last plenary held in Dubai.
- The need for reform in KPCS had risen due to increasing concerns over the continuation of KPCS’s mission for delivery of its commitment to regulate the trade in rough diamonds.
- The committee will start its review from 2018 to make changes to the core document, improve the certification process and strengthen KPCS.

10.3. ECO-NIWAS PORTAL

Why in news?
Recently, government launched ECO-NIWAS (Energy Conservation–New Green Building Initiative in India.

- Energy Conservation Building Code: It aims to optimise energy savings with the comfort levels for occupants, and prefers life-cycle cost effectiveness to achieve energy neutrality in commercial buildings.
- GRIHA (Green Rating for Integrated Habitat Assessment): It attempts to minimize a building’s resource consumption, waste generation, and its overall ecological impact within certain nationally acceptable benchmarks.
Indian Way for Affordable & Sustainable homes) portal.

Highlight

- **Objective**: Increasing awareness about sustainable building and energy efficient homes in the country.
- Portal is developed by **Bureau of Energy Efficiency** under Ministry of Power.

**Bureau of Energy Efficiency (BEE)**

- Statutory body under **Ministry of Power** with the primary objective of reducing energy intensity of the Indian economy.
- Developed the Energy Performance Index (EPI) and rate buildings based on a 1 to 5 star scale.

### 10.4. PUBLIC PROCUREMENT PORTAL FOR MSME

**Why in News?**

- Recently, government has launched **MSME Sambandh** - a Public Procurement portal for Micro Small and Medium Enterprises (MSME).

**More on news**

- The objective of the portal is to monitor the implementation of the Public Procurement from MSEs by Central Public Sector Enterprises.
- It will help in achieving the procurement goal of minimum of 20 per cent of the total annual purchases of the products or services produced or rendered by MSMEs as mandated by Public Procurement Policy, 2012.

**About MSME**

<table>
<thead>
<tr>
<th></th>
<th>Manufacturing*</th>
<th>Services *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>≥ 25 lakh</td>
<td>≥ 10 lakh</td>
</tr>
<tr>
<td>Small</td>
<td>More than 25 lakh but less than 500 lakh.</td>
<td>More than 10 lakhs but does not exceed 200 lakhs</td>
</tr>
<tr>
<td>Medium</td>
<td>More than 500 lakhs but not exceed 1000 lakhs.</td>
<td>More than 200 lakhs but does not exceed 500 lakhs</td>
</tr>
</tbody>
</table>

*Excluding Land and Building Cost.

- **Significance**
  - This sector generates more employment next only to agriculture sector and 80% of jobs in industry is given by MSME with just 20% of investment.
  - It has 31% contribution to the nation’s GDP and 45% and 34% share of the overall exports and manufacturing output (2017 report).
- **Challenges**: Lack of scaling up - confined to rural area, dearth of finance, low quality issue in terms of research, marketing, raw material etc.
- **Suggestion**: Change in classification of MSME, Unified social security law, boost the ancillarisation of MSME, creation of land bank.

### 10.5. IRAQ OVERTAKES SAUDI ARABIA AS INDIA’S BIGGEST OIL SUPPLIER

**Why in news?**

- Iraq has overtaken Saudi Arabia for the first time to become India’s top crude oil supplier in the current fiscal by supplying 25.8 MT of oil.

**Reasons**

- This has mainly happened due to availability of heavy discounted crude from Iraq while the crude oil is sold by Saudi Arabia at Official Selling Price of the OPEC.
- Prices of crude oil shot up following production cuts by OPEC earlier this year. However, Iraq is resistant to aggressive pricing due to its heavy reliance on oil revenues to fund its economy.
- Indian refiners in recent years have invested heavily in modernising plants to more efficiently process low grade crudes, giving greater flexibility in the oil grades they can buy.
- Hence Indian importer made substantial cost-saving by purchasing the Basra heavy crude from Iraq instead of buying crude from Saudi Arabia.

**Facts**

India is 80 per cent dependent on imports to meet its oil needs.

India’s dependence on the Middle East for its crude oil needs has increased from 58 per cent in 2014-15 to 63.5 per cent in the April-October period of this fiscal.
10.6. VIRTUAL CURRENCY OF VENEZUELA

Why in News?

Venezuela recently launched its virtual currency (crypto currency) called ‘PETRO’.

More about the News

- Petro would be backed by Venezuela’s oil, gas, gold and diamond wealth.
- The country is facing issues in making payments to foreign lenders and bondholders with the background of US sanctions imposed early this year.
- Venezuela’s official currency, the bolivar, has lost almost all of its value against the US dollar this year and the economy has descended into chaos in the past few years due to a plunge in global oil prices and an insufficient government response to the crisis.
- The step has been taken to advance in issues of monetary sovereignty, to make financial transactions and overcome the financial blockade.

10.7. SAMEEP

Why in News?

Recently the Ministry of External Affairs launched SAMEEP program.

SAMEEP Program

- Student and MEA Engagement Program (SAMEEP) is an outreach program to familiarise the students in India about the functioning of Ministry of External Affairs (MEA) and also take India’s global engagement and its foreign policy to the grass root levels.
- It is voluntary in nature under which MEA officers, under-secretary and above will visit their home towns and cities and their Alma Maters to bring foreign policy to the masses and raise their interest in diplomacy as career option.