

## I. POLITY & GOVERNANCE

### TOPIC: GS II, ASPECTS OF GOVERNANCE

#### 1. The Electoral Bond Scheme

**Source: The Hindu**

**Why in news:**

Recently, the former Chief election commissioner of India has highlighted the disadvantages of the electoral bond scheme in an interview by stating that even the foreign money can come and even a dying company can give money under the scheme.

**About Electoral Bond scheme:**

- This scheme was announced in Union Budget 2017 with an aim for increasing transparency in political funding making India first country in the world to have such unique bonds for electoral funding.
- Under this scheme, interest-free banking instrument are issued which can be bought in the multiples of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh or Rs 1 crore.
- The bonds are issued by notified banks and political party has to encash it into the account which is registered with the Election Commission of India within a short tenure of 15 days.
- Electoral Bonds may be purchased by a person, who is a citizen of India or incorporated or established in India.
- Only the Political Parties registered under Section 29A of the Representation of the People Act, 1951 and which secured not less than one per cent of the votes polled in the last general election to the Lok Sabha or the Vidhan Sabha, shall be eligible to receive the Electoral Bonds.

**Advantages:**

- The donor to the political party may approach the banks for purchasing the bonds through cheque/digital payment only after fulfilling the KYC norms. This will deter the channelization of black money to the party fund.
- A bond can only be encashed in a pre-declared account of a political party which means every political party will have to disclose the amount of donations it has received through electoral bonds to the Election Commission.
- The entire transactions would be through banking instruments. As against a total non-transparency in the present system of cash donations where the donor, the donee, the quantum of donations and the nature of expenditure are all undisclosed.
- Donor's name has been kept secret which makes the scheme attractive otherwise the donors would

go back to the less-desirable option of donating by cash.

- These bonds have some built in security features to eliminate chances of forgery or presentation of fake bonds like a random serial number invisible to the naked eye which is not shared by the issuing bank to even government authorities.
- It ensures that the funds being collected by the political parties are accounted money or clean money.
- It will also boost digital transactions.

**Disadvantages:**

- Neither the shareholders of a corporation be aware of the company's contributions nor the voters will have any idea of how, and through whom, a political party has been funded.
- Earlier, the law prohibited companies from donating anything more than 7.5% of their average net-profit over the previous three years which has been removed under the scheme which means that even loss-making entities can make unlimited contributions.
- The requirement that a corporation ought to have been in existence for at least three years before it could make donations under the previous law which intended to stop shell concerns from being created with a view purely to siphoning money into politics has also been removed.
- In 1957, the Bombay and the Calcutta High Courts warned Parliament of the perils in allowing companies to freely add to party coffers as this will ultimately overwhelm and even throttle democracy in the country.
- Not only the company's shareholders, but electors too must know how a party is being financed. A democracy couldn't function unless the voters had free and complete access to information about the parties for which they were going to vote.
- The scheme flouts constitutional rights of the citizen because in the absence of complete knowledge about the identities and amount of money being channelized to the political party the voting will not be fair which makes the democracy to lose its intrinsic value.

### TOPIC: GS II, INTERNAL SECURITY

#### 2. Issues related to Naga Separatism

**Source: The Hindu**

**Why in news:**

A breakaway faction of the National Socialist Council of Nagaland (Khaplang), has decided to revoke its decision of unilaterally abrogating the ceasefire agreement with the Union government with immediate effect.

### Historical Background:

- British annexed Assam in 1826, and in 1881, the Naga Hills too became part of British India.
- The first sign of Naga resistance was seen in the formation of the Naga Club in 1918, which told the Simon Commission in 1929 “to leave them alone to determine for themselves as in ancient times.
- Naga National Council (NNC) was formed in 1946 under Angami Zapu Phizo who declared Nagaland an independent state on August 14, 1947, conducted referendum” in 1951 with 99% supporting an “independent” Nagaland.
- Formation of Naga Federal Government (NFG) and the Naga Federal Army (NFA) in 1952 under Phizo and as a result Armed Forces (Special Powers) Act 1958 was enacted and imposed in the state.
- Naga People’s Convention was formed by the moderates who left the path of violence under the leadership of Dr. Imkongliba. It spearheaded the movement to create Nagaland State within the Indian Union with a certain level of autonomy. As a result, 13th amendment in the constitution took place creating Article 371 for ensuring Naga autonomy and a separate state, Nagaland was carved out on December 1, 1963.
- Shillong Accord:
  1. It took place between Indian Government and the NNC in the 1975 under which rebels had to accept the constitution of India without condition, surrender arms and renounce the demand for secession.
  2. Some leaders including Isak Chishi Swu, Th Muivah and Khaplang refused to accept this accord and formed Nationalist Socialist Council of Nagaland NSCN in 1970s which started an underground Naga Federal government having both Civil and Military wings.
  3. It further split into NSCN (Isak-Muivah) most formidable insurgent outfit and NSCN (Khaplang).
  4. NSCN (Isak-Muivah) abandoned violent means and entered into talks with the government in 1997. Although, NSCN (K) signed ceasefire with the Centre in 2001 but unilaterally abrogated it in March 2015.

### Demand of NSCN (IM) for Greater Nagalim:

- A “Greater Nagalim” comprising all contiguous Naga-inhabited areas, along with Nagaland which includes several districts of Assam, Arunachal and Manipur, as also a large tract of Myanmar. The map of Greater Nagalim has about 1,20,000 sq km, while the state of Nagaland consists of 16,527 sq km.

- The Nagaland Assembly has endorsed the ‘Greater Nagalim’ demand time and again in 1964,1970,1994,2003 and recently in 2015.
- In 2015, the Centre signed a framework agreement with the National Socialist Council of Nagaland-Isak-Muivah (NSCN-IM) to end the long-drawn Naga insurgency after it agreed to give up the demand for sovereignty.

## TOPIC: GS II, VARIOUS CONSTITUTIONAL AND REGULATORY BODIES

### 3. Issues related to appointment process in various Constitutional and Statutory Bodies

**Source: The Hindu**

#### Why in news:

The Supreme Court has recently asked the centre to respond on a plea that the appointment process of the CBI director and the heads of the Central Vigilance Commission (CVC), Central Information Commission (CIC) and the Lokpal.

#### Issues highlighted in the petition:

- The CBI, CVC, CIC and the Lokpal had all been limited in their functioning and interfered with by virtue of overwhelming governmental control.
- The heads of these institutions were not truly independent and transparent.
- The committees meant to appoint the heads of these institutions function by pure majority, thereby rendering the balancing voice of the minority. The appointments has to be made by a unanimous vote and not a majority one.
- The Leader of the Opposition has to be a member of the appointing committee but the government took cover under the fact that where such individual was not explicitly recognised, he or she would merely be called upon as an ‘invitee’, thereby subverting the statutory intent.

#### The Central Bureau of Investigation (CBI):

- The CBI was established as the Special Police Establishment in 1941, to enquire into cases of corruption in the procurement during the Second World War.
- It was formally established in independent India on the recommendation of Santhanam Committee on Prevention of Corruption in 1963 by a resolution of the Ministry of Home Affairs and eventually the ministry of personnel eventually took over the responsibility of CBI and now it plays the role of an attached office.

- It is the premier investigating agency of the Central Government and it derives its legal powers from the Delhi Special Police Establishment Act, 1946.
- It's important role is prevention of corruption and maintaining integrity in administration. It works under the overall supervision of Central Vigilance Commission in matters related to the Prevention of Corruption Act, 1988.
- The CVC act provides for a security of two year tenure in office for CBI Director along with the mechanism for the selection of the director of CBI.
- As per the amended Delhi Special Police Establishment Act, the CBI director is appointed on the recommendation of a committee consisting of the Prime Minister – chairperson, Leader of Opposition – member, Chief Justice of India or a Supreme Court Judge recommended by the Chief Justice – member.
- Section 4B(2) of the DSPE Act lays down guidelines for removal of CBI Director, which mandates that the CBI Director cannot be transferred without the previous consent of a high-power committee chaired by the Prime Minister.

#### **Central Vigilance Commission (CVC):**

- In 1964 CVC was established with the aim of addressing corrupt practices within the government.
- It works in coordination with the government authorities for the betterment of the system.
- It is not an investigating agency, however it operates in coalition with other investigative agencies.
- Functions and powers of CVC:
  1. Superintendence over the functioning of the CBI with respect to investigation under the Prevention of Corruption Act, 1988.
  2. To undertake an inquiry to be made into any transaction in which a public servant working in any organisation, to which the executive control of the Government of India extends, is suspected or alleged to have acted for an improper purpose or in a corrupt manner.
  3. To tender disciplinary and other authorities in disciplinary cases, involving vigilance angle at different stages of investigation.
  4. To exercise a general check and supervision over vigilance and anti-corruption work in Ministries or Departments of the Govt. of India and other organisations to which the executive power of the Union extends.
  5. Inquiring into complaints received under the public interest disclosure and protection of informer and recommend appropriate action.

#### **Lokpal and Lokayukta:**

- It is the central governing body that has jurisdiction over all members of parliament and central government employees in case of corruption.
- Whereas, the 'Lokayukta' is similar to the Lokpal, but it functions at the state level.
- Its main function is to address complaints of corruption, to make inquiries, investigations, and to conduct trials for the case on respective state and central government with having responsibility to help in curbing the corruption in the central and state government.
- Its concept is been taken from Sweden and it derives its powers from Lokpal and Lokayuktas Act 2013.
- Appointments to Lokpal is made by a selection committee comprising of Prime Minister, Chief Justice of India, Lok Sabha Speaker, Leader of Opposition and an eminent jurist chosen by them.

*Note: More information regarding CBI and CIC has been provided in previous weekly magazines.*

### **TOPIC: GS II, ASPECTS OF GOVERNANCE**

#### **4. Issues related to Land Acquisition**

**Source: The Hindu**

#### **Why in news:**

The Supreme court has issued notice to Tamil Nadu, Gujarat, Andhra Pradesh, Telangana and Jharkhand governments for amending their land acquisition laws to the extent that consent of farmers or land owners is not required before their land is acquired for projects like industrial corridors, expressways and highways in the wake of a plea filed challenging these amendments.

#### **Details of the Petition:**

- It stated that the states allow land acquisition without participation of representative local bodies like gram sabha in social impact assessment studies, without expert appraisal processes, public hearings etc.
- The amendments violate the core spirit of the Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act of 2013.
- It will allow the private players to take away the maximum share at the profit-making stage in PPP mode of development from the land which has been acquired using public money.

#### **About Land Acquisition, Rehabilitation and Resettlement (LARR) act 2013:**

- The act is applicable to all the land acquisition whether done by the central or state governments except the state of Jammu & Kashmir.

- It has replaced that Land Acquisition Act, 1894
- Key provisions of the act:
  - Definition of Public Purpose:** Section 2(1) of the act defines 'public purpose' as the project which involves land acquisition for strategic purposes for strategic purposes or national security and defence of the country, infrastructure projects, projects for housing for lower income groups or landless or to persons residing in areas affected by natural calamities or to persons displaced or affected by reason of the implementation of any scheme undertaken by the Government.
  - Consent Clause:** When government acquires the land directly for 'public purpose' consent of the land owner is not required. However, if acquired for private companies, and Public Private Projects, the consent of at least 80% and 70% of the project affected families shall be obtained.
  - Limits on acquisition:** The act does not allow acquisition of land under multi cropped area and in case of acquisition of such land, an equivalent area of cultivable wasteland shall be developed by the state for agricultural purposes.
  - Social Impact Assessment:** Before the acquisition process starts the government has to carry out a social impact study along with consultation involving local authorities i.e., Gram Sabha, Municipality etc.
  - Land left unused after acquisition:** If the acquired land remains unutilized for five years then it has to be returned to the original owners.

#### **Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Amendment) Bill, 2015:**

- Mandatory consent clause of 80% people in case of private projects and 70% in case of PPP projects is not applicable to the newly defined five categories namely (i) defense, (ii) rural infrastructure, (iii) affordable housing (iv) industrial corridors (v) infrastructure projects including Public Private Partnership.
- Government may also permit to exempt above categories of land use from Social Impact Assessment clause and from the restrictions of acquisition of multi cropped land clause of LARR act 2013.
- The period after which unutilized land will need to be returned will be: (i) five years, or (ii) any period specified at the time of setting up the project whichever is later.

#### **Issues related to the amendment:**

- Amendment is based on the premise that it would help stalled infrastructure projects. However,

according to economic survey data 2015, out of more than 80 % projects stalled only 8% of them were due to issues in land acquisition and rest were stuck due to lack of funds or other bottlenecks operating in the economy thus the amendments have been brought without any proper deliberations.

- It is important to understand that the land is not purchased but acquired which shows that the owner is not willing to part away from his land. So doing away with the consent clause defies all logic especially when the five categories of land use defined can be extended to comprise any projects under the sun. Critics argue that this amendments seems to be more pro-corporate rather than pro-people.
- Social impact assessment clause which was the most important tool to make the citizens understand about the overall modalities of the project has been repealed. The concerns of the delay due to SIA requires hitting the root of the problem i.e cutting red tapism and departmental corruption rather than eliminating SIA.
- Changing the time period for returning the land i.e. any period specified at the time of setting up the project goes against the spirit of public welfare system.

#### **TOPIC: GS II, ASPECTS OF GOVERNANCE**

### **5. Citizenship Amendment Bill and Internal Security**

**Source: The Hindu**

#### **Why in news:**

The Meghalaya High Court has asked the centre to bring in a law to let people of religious and ethnic minority communities from Afghanistan, Bangladesh and Pakistan be given citizenship without any cut-off year or any questions asked.

#### **About the citizenship amendment bill, 2016:**

- Citizenship (Amendment) Bill, 2016 was introduced in the Parliament on July 19, 2016 which seeks to amend the Citizenship Act, 1955, and provide citizenship to migrants from Afghanistan, Bangladesh and Pakistan, who are Hindu, Sikh, Buddhist, Jain, Parsi or Christian.
- It seeks to reduce the requirement of 11 years of continuous stay in the country to six years to obtain citizenship by naturalisation.
- According to the Citizenship Act, 1955, an illegal immigrant is one who enters India without a valid passport or with forged documents. Or, a person who stays beyond the visa permit.

**Causes for protest against the Bill:**

- It contradicts the Assam Accord of 1985, which clearly states that illegal migrants heading in from Bangladesh after March 25, 1971, would be deported. Thus it goes against the spirit of ongoing National register of citizens.
- National Register of Citizens:
  1. It is a register containing the list of bona fide (genuine/real) Indian citizens. Those failing to enlist their names in the register would be deemed, illegal migrants.
  2. Currently, the list is being updated for the in Assam and it will address the issue of illegal migrants, specifically from Bangladesh.
  3. If the bill becomes an act, the non Muslims entered after 1971 in Assam need not go through deportation process.
- Indigenous people particularly in the states of Assam, Arunachal Pradesh, Meghalaya and Mizoram fear that such a Bill would make them a minority in their homeland.
- If the bill is passed, it will make it easier for Bangladeshi Hindus currently living in India's north east particularly in Assam and Tripura and Chakma and Hajong living in Arunachal Pradesh to get citizenship.

**Cause of introduction of the Bill:**

- Many persons of Indian origin including persons belonging to the six "minority communities" of India's neighbouring countries have been unsuccessfully applying for citizenship under the Citizenship Act of 1955 but are unable to produce proof of their Indian origin and consequently they are forced to apply for citizenship by naturalisation which prescribes 12 years' residency as qualification.
- Such a long-drawn process denies them many opportunities and advantages that may accrue only to the citizens of India, even though they are likely to stay in India permanently.
- The amendment shortens the period of residency from 12 to seven years for gaining citizenship by naturalisation.

**Argument against the amendment:**

- The bill violates the basic tenets of right to equality enshrined in the constitution by distinguishing illegal immigrants on the basis of religion.
- The bill can hamper the achievement of Assam National Register of Citizens which does not distinguish on the basis of religion.

**6. Legal Culture in the Indian Judiciary**

**Source: The Hindu**

**Why in news:**

Recently, a judge of the Meghalaya high court made a political statement taking side of political party which has created controversy.

**Independence of Judiciary:**

**A. Constitution provides independence to the judges of the courts by ensuring:**

- Fixed salaries.
- Security of tenure.
- An appointments process which is insulated from executive control

**B. Why independence is given in the constitution?**

- So that judges perform their constitutional role independent of personal biases, political and moral beliefs, and partisan ideologies.
- So that at the time of delivering judgment judges not take political sides.
- So that judges are bound be loyal to the Constitution and rule of law in terms of legal interpretation of any event.

**Legal Culture in the Indian judiciary:**

- They are set of unwritten, but explicitly established norms that determine what is and what is not acceptable at the time of making judgments.
- They are created and nurtured by judges, lawyers, legal experts, press and the citizens with the time and again.
- It plays a significant role in establishing judicial accountability.
- It is useful for the Indian judiciary because in Indian judiciary, the judges are more or less accountable only to themselves and their own sense of the limits of their constitutional role and accountability only to oneself is a very weak form of constraint. The temptation to overstep is always immense, more so when such immense power has been placed in one's own hands.

**Trend analysis- from judicial activism to judicial overreach:**

**Phase I:**

- During initial years of post independent India, judiciary showed faith in Parliament. Most MPs were freedom fighters, and the court trusted them.

- Since 1967, the court started to refuse to trust elected representatives and became suspicious of various amendments.
- Some important cases of this era were Golaknath case, Keshavanand Bharti case 1973 when the concept of basic structure emerged.

#### **Phase II: 1980s**

- In the 1980s, there was a rapid expansion of judicial power as the judiciary began procedural checks upon its power.
- In this phase, important steps were taken to save the common people from the excess of the executive such as allowing “public interest” cases to be filed on behalf of those who were unable to access the courts.

#### **Phase III: 1990s and 2000s**

- By the 1990s and the 2000s, under the garb of judicial activism, the court was beginning to engage in a host of administrative activities, from managing welfare schemes to beautifying cities to overseeing anti-corruption initiatives.
- The constitutional court started to become a Supreme ‘Administrative’ Court.
- Judiciary has been viewed as an infallible solution to all social problems.
- It was considered to be flawless.

#### **Judgments which show the lack of legal culture in the judiciary:**

- Recent Meghalaya High Court Judge’s ill-advised and ill-judged remarks on citizenship amendment bill.
- Judgment compelling all cinema halls in the nation to play the national anthem.
- Tamil Nadu high court’s judgment that every student in Tamil Nadu must study the Tirukkural.
- Judiciary taking over the entire process of preparing a National Register of Citizens (NRC).

**TOPIC: GS III, AGRICULTURE**

### **7. Farmer Distress**

**Source: The Hindu**

#### **Why in news?**

Farmer protests with violent clashes have recently erupted all over the country.

#### **Issues related to farm distress:**

- According to the National Crime Records Bureau statistics, more than 3 lakh farmers have killed themselves in the last two decades.

- Prime reason for farmers suicide is indebtedness was. Maharashtra, with the highest number of farmers suicides, has 57% of its farm families in debt.
- NSSO data show more than half of all farmers are in debt, with each household owing an average of Rs. 47,000. In Andhra Pradesh and Telangana, indebtedness is as high as 90%, with average debt of around 1 lakh per household.
- Around 70% of agricultural households spend more than they earn and a quarter of all the farmers in India are living below the poverty line.
- According to the census data for 2011, landless agricultural workers have exceeded the number of agricultural cultivators who own the land for the first time and many of them earn less than Rs. 150 a day working in the fields. Failure to generate jobs in other parts of the economy gives them few options.

#### **Causes of farm distress:**

##### **Long-term causes:**

- A. Increasing fragmentation of land. According to NSSO data, nearly 70% of the agricultural households in India owned land less than 1 hectare.
- B. Lack of post-production infrastructure, marketing mechanisms and supply chains.

##### **Recent causes:**

- C. Massive crop production and resultant glut leading to crash in prices. At the same time, input costs have spiked, with diesel prices surging 26% this year and fertilizer costs shooting up more than 15%.
- D. Demonetisation affected farmers’ ability to buy seeds and fertilizers, pay off loans and hire farm labour.

#### **Loopholes in governments approach to tackle farm distress:**

- Although the government endorsed the M.S. Swaminathan Commission recommendation of providing MSP of 1.5 times the cost of production, however, the government’s calculation of the cost of production only includes actual paid-out costs and the imputed cost of family labour, while the Commission’s formula also included the imputed cost of capital and the rent on the land.
- Government only procures wheat, a limited amount of pulses and oilseeds at MSP rates, benefiting only a fraction of farmers.
- Although, loan waivers are a popular poll promise and have been implemented in some states, small and marginal farmers without access to institutional credit are mostly left out from this benefit.

### Recent steps taken by the government to eliminate structural issues:

- Recent report of the government on solving the farm distress is expected to focus on ways to ensure sustainability of production, monetisation of farmers' produce, re-strengthening of extension services and recognising agriculture as an enterprise and enabling it to operate as such by addressing structural weaknesses.
- Recently, cabinet approved an agriculture export policy, lifting restrictions on organic and processed food, which it hopes will double farm exports by 2022 and widen the market for domestic produce.
- Agriculture Export Policy, 2018:
  - A. Government, through this policy aims to double farmers' income by 2022.
  - B. Vision: "Harness export potential of Indian agriculture, through suitable policy instruments, to make India global power in agriculture and raise farmers' income."
  - C. Objectives:
    - (i). To double agricultural exports from present ~US\$ 30+ Billion to ~US\$ 60+ Billion by 2022 and reach US\$ 100 Billion in the next few years thereafter, with a stable trade policy regime.
    - (ii). To diversify export basket, destinations and boost high value and value added agricultural exports including focus on perishables.
    - (iii). To promote novel, indigenous, organic, ethnic, traditional and non-traditional Agri products exports.
    - (iv). To provide an institutional mechanism for pursuing market access, tackling barriers and deal with sanitary and phyto-sanitary issues.
    - (v). To strive to double India's share in world agri exports by integrating with global value chain at the earliest.
    - (vi). Enable farmers to get benefit of export opportunities in overseas market.

## II. SOCIAL JUSTICE

### TOPIC: GS II, HEALTH

### 8. Universal Health Coverage

Source: The Hindu

#### Why in news:

- Universal Health Coverage (UHC) Day has been celebrated on 12th December with the theme "Unite for Universal Health Coverage: Now is the Time for Collective Action."

- International Universal Health Coverage Day aims to raise awareness of the need for strong and resilient health systems and universal health coverage with multi-stakeholder partners.
- According to the World Health Organisation, UHC means "ensuring that everyone, everywhere can access essential quality health services without facing financial hardship".

#### Healthcare in India:

- Infrastructure for healthcare in India, particularly in villages is in a dilapidated state.
- Government hospitals often fail to provide necessary health services to the poor, with private hospitals being out of the reach of most people.
- According to the 2011 census, India's population is over 1.2 Billion, make it the second most populous nation in the world after, China. This has exacerbated the situation.
- According to the Global Burden of Disease study, India has performed poor in healthcare index with a rank of 154 out of 194 countries. Despite this, the budget allotment on healthcare services is as low as less than 2% of her GDP on public healthcare.

#### Towards achieving Universal health coverage:

- In 2005, the National Rural Health Mission (NRHM), was launched which promised to re-imagine primary healthcare and address the under-served needs of rural areas. The main focus of the mission was to establish a fully functional, community owned, decentralised health delivery system.
- The National Health Protection Mission or Ayushman Bharat Yojana is considered to be the first major step towards improving the healthcare mechanism in India. It aims to provide insurance of upto 5 lakh rupees to each family identified on the basis of socio economic castes census covering secondary and tertiary healthcare services for around 50 crores Indians.
- It will subsume the current centrally sponsored schemes: Rashtriya Swasthya Bima Yojana and the Senior Citizen Health Insurance Scheme.
- There are two flagship initiatives under Ayushman Bharat:
  - A. The first is to create a network of health and wellness centres that will bring the healthcare system closer to the people by providing comprehensive healthcare and free essential drugs and diagnostic services. It was launched on the 14th of April 2018, in Bijapur, Chattisgarh. It aims to setup 5 lakh wellness centers across the country by 2022 which will

be equipped to treat a host of diseases, including blood pressure, diabetes, cancer etc.

- B. The second flagship programme under 'Ayushman Bharat' is the National Health Protection Scheme covering over 10 crore poor and vulnerable families.

**Recommendations of High Level Expert Group (HLEG) on Universal health coverage:**

1. Government should increase public expenditure on health from 1.2 per cent of GDP to at least 2.5 per cent by the end of the Twelfth Plan, and to at least 3 per cent of GDP by 2022.
2. Inclusion of Private healthcare providers under the National Health Package (NHP) and their regulation and monitoring to ensure that services are delivered with equity and quality.
3. Essential Drugs List should be revised and expanded. Public sector should be strengthened to protect the capacity of domestic drug and vaccines industry to meet national needs. Various safeguards provided by Indian patents law and the TRIPS Agreement such as compulsory licensing etc. should be used to produce essential drugs at lower cost.
4. Increasing the numbers of Human resource for health upto 23 per 10000 of population which is the norm set up by WHO.
5. Development of a National Health Package to offer, as part of the entitlement of every citizen, essential health services at different levels of the healthcare delivery system.
6. Introduction of all India and state level public health service cadres and a specialized state level health systems management cadre to give greater attention to public health and also to strengthen the management of the UHC system.
7. Establishment of a National Health Regulatory and Development Authority a, National Drug Regulatory and Development Authority and National Health Promotion and Protection Trust.
8. Improving access to health services for women, girls and other vulnerable genders.

**Challenges in achieving UHC:**

- Poor financial resource (Less than 2% of GDP for health care services.)
- According to NSSO data, private sector accounts for more than 75% of total health spending India.
- Social health insurance is absent from a large number of workforce as majority of them are engaged in unorganized sector.
- Infrastructure of both public and private sectors taken together is inadequate. As per WHO

statistics, India has ranked very low in global scenario with only 0.9 beds per 1000 population while global average is about 2.9 beds per 1000 population

- India has largest number of population for out of pocket expenditure for healthcare services and since majority of them cannot afford that. This is the prime reason for pushing many below poverty lines every year.
- Doctor patient ration of India is only 1:1700 while WHO standard is 1: 1000.
- Huge inter-state gap in medical and health care facilities.
- Lack of affordable medicines, effective preventive care, awareness and citizen participation.

**III. ECONOMY**

**TOPIC: GS III, ISSUES RELATED TO DIRECT AND INDIRECT FARM SUBSIDIES AND MINIMUM SUPPORT PRICES**

**9. Online Portal "ENSURE"**

**Source: PIB**

**Why in news:**

Union Minister of Agriculture and Farmers' Welfare launched a portal ENSURE – National Livestock Mission-EDEG developed by NABARD and operated under the Department of Animal Husbandry, Dairying & Fisheries.

**Entrepreneurship Development and Employment Generation (EDEG):**

- Under the National Livestock Mission's component EDEG, subsidy payment for activities related to poultry, small ruminants, pigs etc., through Direct Benefit Transfer (DBT) goes directly to the beneficiary's account.
- To make it better, simpler and transparent, the NABARD has developed an online portal "ENSURE" so that the information related to beneficiary and processing of application can be made readily available.

**Significance of the portal:**

- The flow of information/funds will be quicker and more accountable.
- The burden of extra interest due to delay in the disbursement of the subsidy would now be reduced.
- Accessing the portal will be on real-time basis and list of beneficiaries can be easily prepared.

**TOPIC: GS III, EFFECTS OF LIBERALIZATION ON THE ECONOMY, CHANGES IN INDUSTRIAL POLICY AND THEIR EFFECTS ON INDUSTRIAL GROWTH**

**10. PCS 1x System**

**Source:** PIB

**Why in news:**

Indian Ports Association (IPA) under the guidance of Ministry of Shipping launched the Port Community System 'PCS1x'.

**About PCS 1x:**

'PCS 1x' is a cloud based new generation technology, with user-friendly interface.

- This system seamlessly integrates stakeholders from the maritime trade on a single platform.
- The platform offers value added services such as notification engine, workflow, mobile application, track and trace, better user interface, better security features, improved inclusion by offering dashboard for those with no IT capability.
- A unique feature of 'PCS1x' is that it can latch on to third party software which provides services to the maritime industry thereby enabling the stakeholders to access wide network of services. The system enables single sign on facility to provide one stop interface to all the functionalities across all stakeholders.
- Another major feature is the deployment of a world class state of the art payment aggregator solution which removes dependency on bank specific payment eco system.
- It is an initiative that supports green initiatives by reducing dependency on paper.
- It has been developed indigenously and is a part of the 'Make in India' and 'Digital India'

**Significance:**

- The platform has the potential to revolutionize maritime trade in India and bring it at par with global best practices and pave the way to improve the Ease of Doing Business world ranking and Logistics Performance Index (LPI) ranks.

**Indian Ports Association (IPA):**

- IPA was constituted in 1966 under Societies Registration Act, with the idea of fostering growth and development of all Major Ports which are under the supervisory control of Ministry of Shipping.

**TOPIC: GS III, INFRASTRUCTURE-ENERGY**

**11. Regulatory Indicators for Sustainable Energy (RISE) 2018**

**Source:** Economic Times

**Why in news:**

World Bank has released its report — Regulatory Indicators for Sustainable Energy (RISE) 2018, charting global progress on sustainable energy policies.

- The report was released on the sidelines of the 24th Conference of the Parties to the UN Framework Convention on Climate Change (COP24).

**Highlights of the report:**

- Many of the world's largest energy-consuming countries significantly improved their renewable energy regulations since 2010.
- Progress was even more marked in energy efficiency, with the percentage of countries establishing advanced policy frameworks growing more than 10-fold between 2010 and 2017.
- Among countries with large populations living without electricity, 75 per cent had by 2017 put in place the policies and regulations needed to expand energy access. But there were still significant barriers to global progress on sustainable energy.
- While countries continue to be focused on clean energy policies for electricity, policies to decarbonize heating and transportation, which account for 80 per cent of global energy use, continued to be overlooked.
- This momentum was particularly marked in renewable energy. Among the countries covered by RISE, only 37 per cent had a national renewable energy target in 2010. By 2017, that had grown to 93 per cent.
- By last year, 84 per cent of countries had a legal framework in place to support renewable energy deployment, while 95 per cent allowed the private sector to own and operate renewable energy projects.
- Among the four SDG7 target areas — renewable energy, energy efficiency, electricity access and access to clean cooking — the last one continued to be the most overlooked and underfunded by policymakers.
- There has been little progress on standard-setting for cookstoves or on consumer and producer incentives to stimulate adoption of clean technologies.

- The report contained a warning that without accelerated adoption of good policies and strong enforcement, the world's climate goals and Sustainable Development Goal 7 were at risk.

**Indian Scenario:**

- The World Bank has praised India's success in renewable energy auctions that delivered record-setting low prices for solar power. However, the country needs to take urgent actions to address critical gaps, such as failing utilities, clean cooking, and the slow progress on decarbonizing heating and transport.

**TOPIC: GS II, STATUTORY, REGULATORY AND VARIOUS QUASI-JUDICIAL BODIES**

**12. National Medical Devices Promotion Council**

**Source:** PIB

**Why in new:**

The government will set up a National Medical Devices Promotion Council (NMDPC) under the Department of Industrial Policy and Promotion (DIPP) in the Ministry of Commerce & Industry to promote the medical devices sector.

- The announcement was made on the occasion of 4th WHO Global Forum on Medical Devices at Andhra Pradesh Medtech Zone in Vishakhapatnam.

**Proposed Structure:**

- The Council will be headed by Secretary, DIPP.
- Apart from the concerned departments of Government of India, it will also have representatives from health care industry and quality control institutions.
- Andhra Pradesh MedTech Zone, Visakhapatnam, will provide technical support to the Council.

**Objectives and Activities:**

The key objectives and activities of the National Medical Devices Promotion Council will be as follows:

- To work as a facilitating and developmental body for Indian Medical Devices Industry.
- To conduct seminars, workshop and other promotional and networking activities to promote the sector.
- To identify redundant processes and provide technical assistance to simplify the approval processes involved in medical devices industry.
- To work towards making a export driven market in the field.

- To support dissemination and documentation of international norms and standards for medical devices' and promote global best practices.
- To drive a robust and dynamic Preferential Market Access (PMA) policy, by identifying the strengths of the Indian manufacturers and discouraging unfair trade practices in imports; while ensuring pro-active monitoring of public procurement notices across India to ensure compliance with PMA guidelines of DIPP and DoP.
- Help validation of Limited Liability Partnerships (LLPs) and other such entities within MDI sector.
- To recommend government various measures to promote the MDI sector.

**Medical Devices Industry (MDI):**

- The Medical Devices Industry (MDI) plays a critical role in the healthcare ecosystem and is crucial to achieve the goal of health for all citizens of the country. The manufacturing and trade in MDI is growing steadily in double digits. However, it is largely import-driven with imports accounting for over 65 percent of the domestic market.
- The setting-up of the Council will spur domestic manufacturing in this sector as Indian companies and startups have stated moving towards creating innovative products.

**IV. ENVIRONMENT**

**TOPIC: GS III, CONSERVATION, ENVIRONMENTAL POLLUTION AND DEGRADATION, ENVIRONMENTAL IMPACT ASSESSMENT**

**13. Bioplastics not an eco-friendly alternative to plastic- Study**

**Source:** The Hindu

**Why in news:**

A study was conducted by the University of Bonn in Germany on the use of bioplastics and its effects on the environment.

- According to the study, bioplastics — often promoted as a climate-friendly alternative to petroleum-based plastics — may lead to an increase in greenhouse gas emissions.
- Also, the belief that bioplastics will reduce the amount of waste in the oceans may not even come true.

**How are bioplastics harmful?**

- Bioplastics are in principle climate-neutral since they are based on renewable raw materials such as maize, wheat or sugar cane. These plants get

the CO<sub>2</sub> that they need from the air through their leaves. Producing bioplastics therefore consumes CO<sub>2</sub>, which compensates for the amount that is later released at end-of-life. Overall, their net greenhouse gas balance is assumed to be zero. Bioplastics are thus often consumed as an environmentally friendly alternative.

- However, at least with the current level of technology, this issue is probably not as clear as often assumed. This is because the production of bioplastics in large amounts would change land use globally. This could potentially lead to an increase in the conversion of forest areas to arable land. However, forests absorb considerably more CO<sub>2</sub> than maize or sugar cane annually, if only because of their larger biomass.

#### Issues with use of plastics:

- Plastics are usually made from petroleum, with the associated impacts in terms of fossil fuel depletion but also climate change. The carbon embodied in fossil resources is suddenly released to the atmosphere by degradation or burning, hence contributing to global warming.
- This corresponds to about 400 million metric tonnes of CO<sub>2</sub> per year worldwide, almost half of the total greenhouse gases that Germany emitted to the atmosphere in 2017. It is estimated that by 2050, plastics could already be responsible for 15% of the global CO<sub>2</sub> emissions.

**TOPIC: GS III, CONSERVATION**

### **14. Ministry of New and Renewable Energy conferred Skoch Award for National Significance**

Source: PIB

#### What's the news?

- Ministry of New and Renewable Energy has been conferred the Skoch Award for National Significance.
- The award has been conferred considering its purpose and critical role played in installing about 73 GW renewable energy capacity in the country.
- With 21 per cent of total installed capacity, within the year renewable energy grossed one billion units of electricity in the country.
- India had played a critical role in setting up of international solar alliance.

#### India's ranking:

- India ranks fourth in the world in wind energy capacity, and
- India ranks fifth in solar & total energy capacity installed in the world.

#### About Skoch Group:

- It is a think tank dealing with socio-economic issues with a focus on inclusive growth since 1997.
- It has instituted India's highest independent civilian honours in the field of governance, finance, technology, economics and social sector.

#### Skoch Award 2018:

- SKOCH Award celebrates excellence of governance delivery by domain departments. This includes having sufficient familiarity, capacity and knowledge about the functionality of their systems, processes and outcomes.

#### Who can nominate?

- Central government
- State government
- Local body
- Municipality
- City/District administration
- State Owned Enterprises/Undertakings

**TOPIC: GS III, CONSERVATION, ENVIRONMENTAL POLLUTION AND DEGRADATION, ENVIRONMENTAL IMPACT ASSESSMENT**

### **15. Eco-Sensitive Zones**

Source: The Hindu

#### Why in news?

The Supreme Court has directed the Union Environment Ministry to declare 10 km area around 21 national parks and wildlife sanctuaries across the country as 'eco-sensitive zones'.

- The court took the initiative after its amicus curiae informed the court that the State governments have taken no effort to protect the area around these sanctuaries and parks.
- The parks and sanctuaries are the Pobitora sanctuary in Assam; Hemis High Altitude and Kishtewar national parks, Changthang, Hokersar, Trikuta sanctuaries in Jammu and Kashmir; Jogimatti, Thimlapura and Yadahalli Chinkara sanctuaries in Karnataka; Deolgaon Rehekuri and Thane Creek Flamingo sanctuaries and the Malvan marine sanctuary in Maharashtra; Siroi National Park and Khongjaingamba Ching sanctuary in Manipur; Baghmara Pitcher Plant sanctuary in Meghalaya; Fakim and Puliebadze and Rangapahar sanctuaries in Nagaland; Dr. Bhimrao Ambedkar bird sanctuary and Pilibhit sanctuary in Uttar Pradesh and the Jorepokhri sanctuary in West Bengal.

### What are Eco-sensitive zones?

The Environment Protection Act, 1986 does not mention the word “Eco-sensitive Zones”.

The section 3(2)(v) of the Act, says that Central Government can restrict areas in which any industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards

Besides the section 5 (1) of this act says that central government can prohibit or restrict the location of industries and carrying on certain operations or processes on the basis of considerations like the biological diversity of an area, maximum allowable limits of concentration of pollutants for an area, environmentally compatible land use, and proximity to protected areas.

- The above two clauses have been effectively used by the government to declare Eco-Sensitive Zones or Ecologically Fragile Areas (EFA). The same criteria have been used by the government to declare No Development Zones.
- The MoEF (Ministry of Environment & Forests) has approved a comprehensive set of guidelines laying down parameters and criteria for declaring ESAs. A committee constituted by MoEF put this together. The guidelines lay out the criteria based on which areas can be declared as ESAs. These include Species Based (Endemism, Rarity etc), Ecosystem Based (sacred groves, frontier forests etc) and Geomorphologic feature based (uninhabited islands, origins of rivers etc).

**TOPIC: GS III, CONSERVATION, ENVIRONMENTAL POLLUTION AND DEGRADATION, ENVIRONMENTAL IMPACT ASSESSMENT**

## 16. ECO Niwas Samhita 2018

Source: PIB

### Why in news:

Ministry of Power has launched the ECO Niwas Samhita 2018, an Energy Conservation Building Code for Residential Buildings (ECBC-R).

- The code was launched on the occasion of National Energy Conservation Day 2018.
- It aims to benefit the occupants and the environment by promoting energy efficiency in design and construction of homes, apartments and townships.

### About the Energy Conservation Building Code:

- It is prepared after extensive consultations with all stakeholders, consisting of architects & experts including building material suppliers and developers.

- The parameters listed have been developed based on large number of parameters using climate and energy related data.
- The code is expected to assist large number of architects and builders who are involved in design and construction of new residential complexes.
- Implementation of this Code will have potential for energy savings to the tune of 125 Billion Units of electricity per year by 2030, equivalent to about 100 million ton of Co2 emission.

### Background:

- ECBC for commercial buildings was already in place and revised and updated version of ECBC for commercial buildings was launched in June 2017. It is estimated that energy demand in the building sector will rise from around 350 billion units in 2018 to approximately 1000 billion units by year 2030.
- Building sector will have highest growth in energy demand in coming 10-15 years. Government is encouraging all building professionals including architects, builders to generate awareness towards energy conservation while constructing new residential homes.

### National Energy Conservation Awards:

- National Energy Conservation Day is celebrated every year on 14th December by Ministry of Power in association with Bureau of Energy Efficiency. On this day, 26 industrial units from various sectors were given awards for their excellent performance in energy efficiency.

### About Bureau of Energy Efficiency (BEE):

- BEE is a statutory body under Ministry of Power which is mandated to implement policy and programmes in the area of energy efficiency and conservation.
- The objective of such initiatives is to reduce energy intensity in our country by optimizing energy demand and reduce emissions of greenhouse gases (GHG) which are responsible for global warming and climate change.

India has committed to reduction of 33-35% GHG emission by 2030 as part of the document submitted to UNFCCC.

**TOPIC: GS I, IMPORTANT GEOPHYSICAL PHENOMENA SUCH AS EARTHQUAKE, TSUNAMI, CYCLONE ETC**

## 17. Cyclonic Storm Phethai

Source: The Hindu

### Why in news:

- Cyclone Pethai has emerged as a deep depression in the Bay of Bengal around 900 kms off Chennai on 15 December 2018.

- It was expected to bring heavy rainfall in the coastal areas of north Tamil Nadu, Andhra Pradesh, Chhattisgarh and Odisha.

**Key facts:**

- Cyclonic Storm Phethai is the sixth named cyclone of 2018 North Indian Ocean Cyclone season.
- The previous five named cyclones are Sagar, Mekunu, Luban, Titli and Gaza.

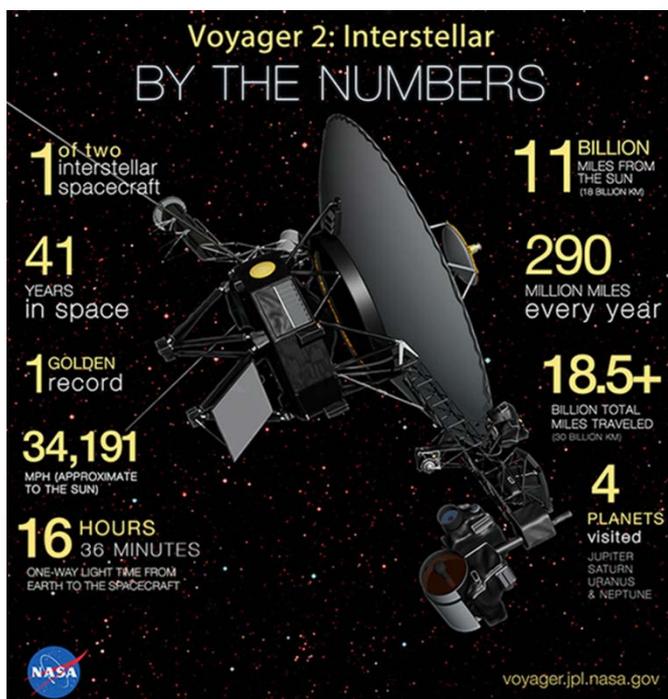
**V. SCIENCE & TECHNOLOGY**

**TOPIC: GS III, AWARENESS IN SPACE**

**18. NASA's Voyager 2 Spacecraft**

Source: NASA, BBC

NASA's Voyager 2 spacecraft has exited the heliosphere -- the plasma bubble created by the sun that encompasses most of our solar system -- and entered interstellar space.



**More about Voyager 2:**

- It is only the second man-made object to ever enter interstellar space.
- Voyager 2 is the only probe ever to study Neptune and Uranus during planetary flybys.
- It is now 11 billion miles from Earth, following behind its sister spacecraft, Voyager 1, which is 6 years ahead of it. The probe is estimated to be travelling at 34,000 mph.
- Voyager 2 is the only spacecraft to have visited all four gas giant planets — Jupiter, Saturn, Uranus and Neptune — and discovered 16 moons, as well as phenomena like Neptune’s mysteriously transient Great Dark Spot, the cracks in Europa’s ice shell, and ring features at every planet.

**What is Interstellar space?**

- Scientists use the heliopause to mark where interstellar space begins, although depending on how you define our solar system it can stretch all the way to the Oort Cloud, which begins 1,000 times farther away from the sun than Earth’s orbit.

**The Heliosphere:**

- The heliosphere is a bubble around the sun created by the outward flow of the solar wind from the sun and the opposing inward flow of the interstellar wind. That heliosphere is the region influenced by the dynamic properties of the sun that are carried in the solar wind—such as magnetic fields, energetic particles and solar wind plasma. The heliopause marks the end of the heliosphere and the beginning of interstellar space.

**About Voyager mission:**

- The Voyager mission was launched in the 1970’s, and the probes sent by NASA were only meant to explore the outer planets – but they just kept on going.
- Voyager 2 was launched on August 20, 1977, from Cape Canaveral, Florida aboard a Titan-Centaur rocket. On September 5, Voyager 1 was launched, also from Cape Canaveral aboard a Titan-Centaur rocket.
- The mission objective of the Voyager Interstellar Mission (VIM) is to extend the NASA exploration of the solar system beyond the neighbourhood of the outer planets to the outer limits of the Sun’s sphere of influence, and possibly beyond.
- The Voyager spacecraft are the third and fourth human spacecraft to fly beyond all the planets in our solar system. Pioneers 10 and 11 preceded Voyager in outstripping the gravitational attraction of the Sun but on February 17, 1998, Voyager 1 passed Pioneer 10 to become the most distant human-made object in space.

**TOPIC: GS III, AWARENESS IN SPACE**

**19. Signs of water found on Asteroid Benu**

Source: NASA

**Why in news:**

ASA's OSIRIS-REx spacecraft discovered evidence of water on a relatively nearby skyscraper-sized asteroid, Benu, a rocky acorn-shaped object that may hold clues to the origins of life on Earth.

**Key points:**

- Data obtained from spacecraft’s two spectrometers, the OSIRIS-REx Thermal Emission Spectrometer (OTES) and OSIRIS-REx Visible and

Infrared Spectrometer (OVIRS) has revealed presence of hydroxyl molecules that contain oxygen and hydrogen atoms bonded together.

- These hydroxyl groups exist globally across asteroid in water-bearing clay minerals, indicating that at some point Benu's rocky material interacted with water.
- While Benu itself is too small to have ever hosted liquid water, the finding indicates that liquid water was present at some time on Benu's parent body, a much larger asteroid.

**About OSIRIS-REx:**

OSIRIS-Rex stands for Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer.

- It launched in September 2016 is NASA's first asteroid sampling mission i.e. it will survey surface, collect sample and deliver it safely back to Earth.
- It had reached its destination Benu asteroid in December 2018 after travelling through space for more than two years and travelling over two billion kilometres.
- Samples returned by the mission to Earth in 2023 will enable scientists to find new information about the history and evolution of our solar system.



**Why was Benu chosen?**

Benu was selected for the OSIRIS-REx mission from over 500,000 known asteroids, due to it fitting following key criteria:

- Proximity to Earth: In order for OSIRIS-REx to reach its destination in a reasonable timeframe, NASA needed to find an asteroid which had a similar orbit to Earth.
- Size: Small asteroids, those less than 200m in diameter, typically spin much faster than larger asteroids, meaning the regolith material can be ejected into space. Benu is around 500m in diameter, so rotates slowly enough to ensure that the regolith stays on its surface.
- Composition: Benu is a primitive asteroid, meaning it hasn't significantly changed since the

beginning of the Solar System (over 4 billion years ago). It is also very carbon-rich, meaning it may contain organic molecules, which could have been precursors to life on Earth.

- Benu is of interest as it is a Potentially Hazardous Asteroid (PHA). Every 6 years, Benu's orbit brings it within 200,000 miles of the Earth, which means it has a high probability of impacting Earth in the late 22nd Century.

**TOPCI: GS III, AWARENESS IN SPACE**

**20. Method to simulate, predict solar activity over ten years developed**

**Source: The Hindu**

**Why in news:**

A team of researchers from IISER Kolkata have developed a way of predicting the intensity of activity in the next solar cycle (approximately from 2020 to 2031) using data spread over the last 100 years.

**Background:**

- Astronomers have observed sunspots on the surface of the sun for nearly 400 years. It is known that sunspots follow a cyclic pattern of growing in number and disappearing in approximately 11 years, known as the sunspot cycle or the sun's activity cycle. We are currently in the 24th sunspot cycle since the observation began in 1755.

**Findings:**

- The researchers found that the sun's activity would not dip during the next cycle, but it would be similar to the current cycle, perhaps even stronger. They expect the cycle to peak around 2024.

**Method:**

- The researchers simulate the behaviour of the sun using magnetic field evolution models and observational data. They simulate solar activity, and using inputs from observed data from one cycle, predict the behaviour of the sun over the next cycle, about ten years in advance.

**What are Sunspots?**

- Sunspots are temporary phenomena on the Sun's photosphere that appear as spots darker than the surrounding areas. They are regions of reduced surface temperature caused by concentrations of magnetic field flux that inhibit convection. Sunspots usually appear in pairs of opposite magnetic polarity.

**Significance of studying sunspots:**

- To know the effects on space weather. This refers to the effect of radiation, particle flux and magnetic flux in the region around the sun. During

extreme events, space weather can affect electronics-driven satellite controls, communications systems, air traffic over polar routes and even power grids.

- Sunspots are correlated with climate on earth. A lot of the research in this area focuses on predicting the way the next sunspot cycle will shape up – whether the sun will be extremely active and produce many sunspots or not.
- For the understanding of the long-term variations of the sun and its impact on our climate which is one of the science objectives of Aditya mission. The forecast will be also useful for scientific operational planning of the Aditya mission.

**‘Maunder-like minimum’:**

There have been predictions that the next cycle (cycle 25) will show reduced sunspot activity. There have even been speculations that the sun may be heading towards a period of prolonged low activity – what solar physicists describe as a ‘Maunder-like minimum’.

The Maunder minimum refers to a period from 1645 to 1715 where observers reported minimal Sunspot activity – the number of sunspots reduced by a factor of nearly 1,000, over a period of 28 years.

- During this and other such periods of low activity, some parts of Europe and North America experienced lower-than-average temperatures. While the connection between the Maunder minimum and the climate on earth is still debated, it gives another reason to watch the sunspots.

**TOPIC: GS III, AWARENESS IN SPACE**

**21. Atacama Large Millimeter Array (ALMA)**

**Source: Business Standard**

**Why in news:**

Astronomers have obtained stunning, high-resolution images of 20 nearby protoplanetary disks, depicting the birth of planets, using Chile’s Atacama Large Millimeter/submillimeter Array (ALMA).

- The observations are part of a major ALMA initiative known as the Disk Substructures at High Angular Resolution Project, or DSHARP campaign.

**Significance:**

- According to the researchers, the most compelling interpretation of these observations is that large planets, likely similar in size and composition to Neptune or Saturn, form quickly, much faster than current theory would allow.
- It may also help explain how smaller rocky planets manage to survive in the chaos of young systems.

**About ALMA telescope:**

The Atacama Large Millimeter/submillimeter Array (ALMA) is an international partnership of the European Southern Observatory (ESO), the U.S. National Science Foundation (NSF) and the National Institutes of Natural Sciences (NINS) of Japan, together with NRC (Canada), NSC and ASIAA (Taiwan), and KASI (Republic of Korea), in cooperation with the Republic of Chile.

- ALMA is a single telescope of revolutionary design, composed of 66 high precision antennas located on the Chajnantor plateau, 5000 meters altitude in northern Chile.
- ALMA allows scientists to unravel longstanding and important astronomical mysteries, in search of our Cosmic Origins.

**VI. PRELIMS/MISCELLANEOUS**

**22. Clean Sea- 2018**

- Indian Coast Guard (ICG) has conducted Regional Level Marine Oil Pollution Response Exercise titled ‘Clean Sea– 2018’ at sea off Port Blair, Andaman & Nicobar (A&B) Islands.

**Key points:**

- The objective of exercise was to ascertain preparedness of IGC, resource agencies and other stakeholders in responding to major oil spill in line with provisions of National Oil Spill Disaster Contingency Plan (NOS-DCP).
- Indian Coast Guard (ICG) under Ministry of Defence is responsible for marine environment protection in maritime zones of India and is coordinating authority for response to oil spills in Indian waters.
- It has drawn up National Oil Spill Disaster Contingency Plan (NOS-DCP) and has established three pollution response centres at Mumbai, Chennai and Port Blair.

**Need for exercise:**

- Great Channel between Nicobar Islands and Northern Sumatra that leads into Malacca Straits is marine drive of high seas. Almost 200 ships cross 160-km wide Straits daily making it among busiest sea routes of world. Considering, high intensity of oil tanker traffic through this route, the area is highly vulnerable to oil spills. So there is need for robust national system for oil spill response is critical.

**23. India’s tallest bridge pier built in Noney, Manipur**

- The Northeast Frontier Railway Construction Organization has constructed India’s tallest pier as part of the project to build a railway bridge at

Noney in Manipur. The proposed bridge will be the world's tallest railway bridge.

**Key points:**

- The bridge is being constructed across the valley of river Ijai near Noney, with the height of the final pier being 141 metres. The total length of the Noney bridge will be 703 metres.
- On completion, the bridge will surpass the existing world record, held by the 139-metre Mala-Rijeka viaduct in Montenegro.
- The bridge is a part of the 111-km Jiribam-Tupul-Imphal new broad gauge line project, a national project which is set to be completed by 2022. The project also includes 45 tunnels, the longest being 10.28 km, which will be the longest railway tunnel of the northeast.

**24. Kerala becomes first state to have four International Airports**

- With the inauguration of the Kannur International airport, Kerala has now become the first state in India to have four international airports.
- Kochi, Kozhikode and Thiruvananthapuram are the other three cities with an international airport.

**25. Kaiga Power Station-1 creates a World Record**

- Karnataka's Kaiga has once again made the country proud by creating a world record for the longest uninterrupted operation for 941 days, thereby breaking the earlier record of 940 days by the United Kingdom.
- On October 25, 2018, Kaiga Generating Station (KGS-1) had broken the earlier world record for longest uninterrupted operation among Pressurised Heavy Water Reactor (PHWR) held by Pickering-7 (Ontario) in Canada which operated for 894 days and few hours.

**Background:**

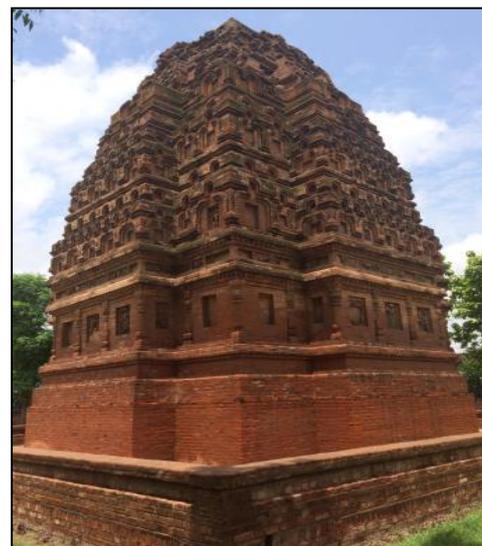
- KGS-1 at Kaiga, located 56 km from Karwar has been generating electricity continuously since May 13, 2016. It is an indigenously-built PHWR run by domestic fuel (uranium). It began commercial operations on November 16, 2000, and has produced 500 cr. units of power so far. In June, KGS-1 had set a national record for continuous operation of 766 days.
- According to official sources, KGS-1 will be shutdown for maintenance on December 30. Nuclear power reactors undergo mandatory checks and have to get clearance from the Atomic Energy Regulatory Board to continue operations.

**26. World's first Floating Nuclear Plant in Russia**

- Akademik Lomonosov is the world's first "floating" nuclear power plant (FNPP).
- It is coming up in Russia.
- An FNPP is basically a mobile, low-capacity reactor unit operable in remote areas isolated from the main power distribution system, or in places hard to access by land. They are designed to maintain both uninterrupted power and plentiful desalinated water supply in remote areas.

**27. Bhitargaon Temple**

- Bhitargaon brick temple is located in Kanpur District of Uttar Pradesh. It is the oldest remaining Hindu temple, and was built in the Gupta Era in 6th century.
- Bhitargaon is one of the first to shikhara above the garbha-griha which became a standard feature of later temples in the 'nagara' style.
- Bhitargaon or inner village, refers to the inner part of what was at some point known as pushppur the outer area is called bari-gaon or outer village.
- It is also one of the earliest surviving brick temples of India.
- In 1861, Lord Canning appointed Sir Alexander Cunningham as the Archaeological Surveyor to the Government of India. According to Cunningham, his friend, Raja Ravi Prasada, gave him information of a brick temple near Kanpur that had superior terracotta work and consequently he paid visits to the temple.
- Though Cunningham had placed it as belonging to the 7th century, it has subsequently been identified as belonging to the late Gupta period, to the 5th century.



## 28. Nobel Peace Prize 2018

- Denis Mukwege is a Congolese gynaecologist known for treating thousands of rape victims, and Nadia Murad, the Iraqi Yazidi, who was sold into sex slavery by Isis, have been jointly awarded the 2018 Nobel peace prize.
- Both these personalities became famous to keeping their personal security at risk by courageously combatting war crimes and securing justice for victims.
- The joint award comes a decade since the UN security council adopted Resolution 1820 (2008), which determined that the use of sexual violence as a weapon of war and armed conflict constitutes both a war crime and a threat to international peace and security.
- Nadia Murad is the second youngest Nobel Prize laureate after Malala Yousafzai.

### About Nobel Prize:

- Dynamite inventor Alfred Nobel died in 1896 leaving his wealth to give awards in 5 categories → Physics, Chemistry, Medicine, Literature, and Peace.
- Later 6th Category added → Economics funded by Bank of Sweden exclusively
- Started in 1901, Maximum 3 persons can be awarded in each category
- A person must be alive to be nominated.
- Nobel prize recipients are called laureates.

- Actual medals are given on December 10, the anniversary of Alfred Nobel's death.
- Awards are in the form of medal, diploma, and 8-million Swedish kroner ~ \$1.1 million.
- Peace Prize is awarded in Oslo, Norway.
- Other prizes are awarded in Stockholm, Sweden.

## 29. Chinnaswami Subramania Bharati/ Bharathiyar

- He was a Tamil writer, poet, journalist, Indian independence activist and a social reformer from Tamil Nadu.
- He was popularly known as "Mahakavi Bharati", a pioneer of modern Tamil poetry.
- He is famous for imbibing patriotism during the Indian Independence movement through his works.
- He also fought against the caste system in Hindu society.
- He advocated and campaigned for women's participation in politics and supported greater rights for women and their education.
- According to him, the world will prosper in knowledge and intellect if both men and women are deemed equal.

## 30. Tu-160

- Two Russian nuclear-capable strategic bombers called Tu-160 bombers was recently landed by Russia in Venezuela.

WHO ARE THE WINNERS?	
<h3>FROM SLAVE OF JIHADIS TO NOBEL WINNER</h3>  <p><b>NADIA MURAD</b> survived the worst cruelties ever inflicted on her people, the Yazidis of Iraq, before becoming a global champion of their cause and winning the Nobel Peace Prize.</p> <ul style="list-style-type: none"> <li>■ The 25-year-old Murad once lived a quiet life in her village near the mountainous northern Iraq, close to the border with Syria.</li> <li>■ But, in 2014, pick-up trucks bearing the black flag of the IS jihadists swept into her village, Kocho. IS fighters set about killing the men, taking children captive to train them as fighters and condemning thousands of women to a life of labour and sexual slavery.</li> <li>■ After being captured by IS fighters, she was held captive and repeatedly gangraped, tortured and beaten.</li> <li>■ Murad escaped and reached Iraqi Kurdistan. There, she learnt that six of her brothers and her mother had been killed.</li> <li>■ She has since dedicated herself to what she calls 'our peoples' fight'.</li> </ul>	<h3>BRAVE HEALER OF HORRIFIC WOUNDS</h3>  <p><b>DENIS MUKWEGE</b> is a crusading gynaecologist who has spent over two decades treating injuries inflicted on women in DRC, whose work was the subject of a 2015 film: <i>The Man Who Mends Women</i>.</p> <ul style="list-style-type: none"> <li>■ In Democratic Republic of Congo, they call him 'Doctor Miracle' for his surgical skill and dedication in helping women overcome the injuries and trauma of sexual abuse and rape.</li> <li>■ A father to five children, the tireless 63-year-old is an outspoken critic of the abuse of women in war, and has repeatedly accused the world of failing to act.</li> <li>■ He had been repeatedly nominated for his work with gangrape victims.</li> <li>■ Mukwege has called on the world to take a tougher line on rape as a weapon of war.</li> <li>■ He has set up the Panzi hospital in Bukavu, which serves as a clinic for gynaecological and obstetric care. There, he lives under the permanent protection of UN peacekeepers.</li> </ul>

**About Tu 160:**

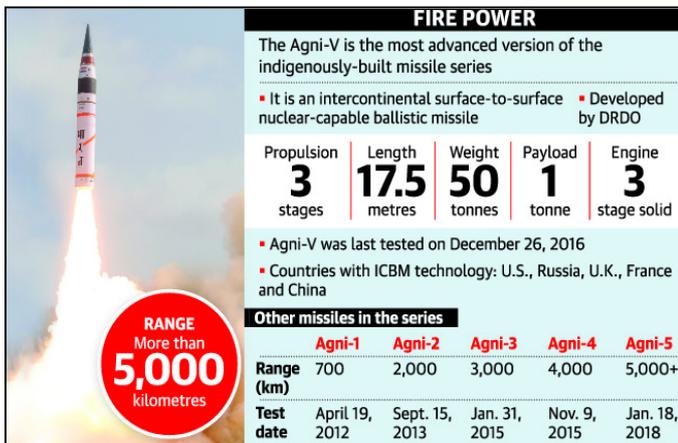
- They are also known as White Swans.
- It is a supersonic, variable-sweep wing heavy strategic bomber.
- It is capable of carrying conventional or nuclear-tipped cruise missiles with a range of 5,500km.
- It has been named Blackjack by NATO and it is capable of flying at twice the speed of sound.

**31. Ex Aviaindra 2018**

- Ex AVIAINDRA, an air exercise between India and Russia has recently took place at Jodhpur from 10-21 Dec 2018.
- It is the second in the series of bilateral joint exercise between these two countries.

**32. Agni V**

- Agni V has been recently successfully launched at the Dr Abdul Kalam Island off the coast of Odisha.
- It is Indigenously developed long-range surface-to-surface long range ballistic missile of India.



**FIRE POWER**

The Agni-V is the most advanced version of the indigenously-built missile series

- It is an intercontinental surface-to-surface nuclear-capable ballistic missile
- Developed by DRDO

Propulsion	Length	Weight	Payload	Engine
<b>3</b> stages	<b>17.5</b> metres	<b>50</b> tonnes	<b>1</b> tonne	<b>3</b> stage solid

- Agni-V was last tested on December 26, 2016
- Countries with ICBM technology: U.S., Russia, U.K., France and China

**Other missiles in the series**

	Agni-1	Agni-2	Agni-3	Agni-4	Agni-5
Range (km)	700	2,000	3,000	4,000	5,000+
Test date	April 19, 2012	Sept. 15, 2013	Jan. 31, 2015	Nov. 9, 2015	Jan. 18, 2018

**RANGE**  
More than **5,000** kilometres

**33. Agenda for Sustainable Development 2030**

- The Vice President of India has recently stated that India attaches utmost importance to the 2030 Agenda for sustainable Development.

**About Sustainable development goal:**

- In 2015 United Nations adopted resolution on “Transforming our world: the 2030 Agenda for Sustainable Development“, which has 169 targets in 17 goals called Sustainable Development Goals. These goals are legally non-binding and have succeeded the eight MDGs, which were adopted in 2000 for fifteen years in Rio 20+ summit.

**India’s commitment for achieving sustainable development goals:**

1. End poverty in all its forms everywhere:
  - Mahatma Gandhi National Rural Employment Guarantee Act to reduce extreme poverty as well

as enhance the infrastructure and purchasing power in rural areas.

- Important steps like Aadhaar Act, Insolvency and Bankruptcy Act, Goods and Services Tax (GST) have led to increased volume of revenues, which have permitted the government to sustain a high-level of social spending that directly targets poverty.
- National food security act 2013.
- Deen Dayal Antyodaya Yojana-National Livelihoods Mission provides skilled employment to marginalized communities.

2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- Programmes under the National Food Security Act cover more than 800 million people in the country.
- Public Distribution System is one of the largest food security initiatives in the world.
- National Mission on Sustainable Agriculture in collaboration with other stakeholders is implementing climate change adaptation strategies for sustaining agricultural productivity
- Soil Health Cards scheme has been introduced for issuing crop-wise nutrient management advisories.

- National agricultural policy for doubling farmers’ income by 2022.

- Pradhan Mantri Fasal Bima Yojana.

3. Ensure healthy lives and promote well-being for all at all ages:

- National Health Policy, 2017 for universalizing primary health care, reducing infant and under-5 mortality, preventing premature deaths due to non-communicable diseases as well as increasing Government expenditure on health.
- Indradhanush programme for improving the level of vaccination.
- Ayushman Bharat programme.

4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

5. Achieve gender equality and empower all women and girls

- Beti Bachao Beti Padoo Yojna.
- Increasing the paid leave for women workers under maternity benefit amendment act 2017 from 12 weeks to 26 weeks.

6. Ensure availability and sustainable management of water and sanitation for all.

- Under the National Rural Drinking Water Programme, more than 77% of the rural habitations have been fully covered with 40 litres

of drinking water per capita on a daily basis. The objective of the Clean India Movement is to ensure an Open Defecation Free India by 2019.

7. Ensure access to affordable, reliable, sustainable and modern energy for all.

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

- Rapid growth of Indian economy is aimed at empowering households by giving them necessary purchasing power to access food, clothing, housing, education and health.

9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

- Various reforms like fiscal consolidation, inflation targeting, improved governance all around, accelerated infrastructure development is aimed at achieving this goal.
- New Manufacturing Policy raises the output target from 16% of GDP to 25% by 2025.
- Make in India programme.
- Pradhan Mantri MUDRA Yojana.

10. Reduce inequality within and among countries

11. Make cities and human settlements inclusive, safe, resilient and sustainable.

12. Ensure sustainable consumption and production patterns.

13. Take urgent action to combat climate change and its impacts

14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

- National Fisheries Action Plan.
- Coastal Ocean Monitoring and Prediction System for tracking the levels of marine pollution along the coastline.
- Sagarmala programme is focused on improving port connectivity, port-linked industrialization and coastal community development.

15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.



### **34. Shyama Prasad Mukherji Rurban**

#### **Mission**

- Under Shyama Prasad Mukherji Rurban Mission (SPMRM) 295 clusters have been identified and approved across 29 States and 6 Union Territories out of mandated 300 clusters.

#### **About Shyama Prasad Mukherji Rurban Mission:**

- It was launched on February 21st, 2016 to deliver catalytic interventions to rural areas on the threshold of growth.
- It has replaced the PURA (provisional of urban amenities in rural areas).
- It aims at development of rural growth clusters which have latent potential for growth, in all States and UTs, which would trigger overall development in the region.

## Question:

1. What is electoral bond scheme? Critically analyse the advantages and disadvantages of the scheme.
2. Highlighting the proposed amendment in Land Acquisition, Rehabilitation and Resettlement act 2013 critically analyse the issues associated with it.
3. Critically analyse arguments in favour and against the citizenship amendment bill 2016. What are the causes for protest against this bill particularly in India's north east?
4. Do you think that the Indian constitution has provided enough safeguards for ensuring the independence of judiciary? Indian judiciary has moved from the era of judicial pacifism to judicial activism and now it is moving towards judicial overreach. Discuss.
5. Do you think that India is moving towards Universal Health coverage system? What are the challenges in achieving this? Highlight the recommendation of committees formed in this context.
6. Critically analyse various issues related to farm distress in India. Although many steps have been taken for improving farmer's distress, however they are not free from loopholes. Discuss.