

# VETRII IAS GATEWAY

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# PIB

## APRIL - 2019

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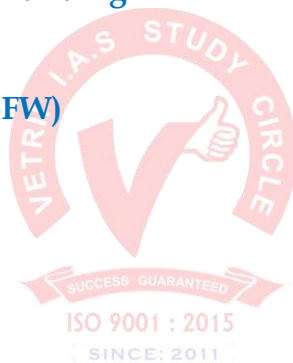
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COMMUNITY RADIO STATIONS AND SVEEP

GS 2: Polity | Salient features of the Representation of People's Act.

Prelims level: SVEEP, Community Radio Stations

Why in News?

- In a first of its kind initiative, the ECI has reached out to over 150 Community Radio stations from across the country to help educate and inform the voters.
- The main purpose of the workshop was for training and capacity building of Community Radios for voter education and awareness.

Community Radio Stations:

- Community radio is a radio service offering a third model of radio broadcasting in addition to commercial and public broadcasting.
- They serve geographic communities and communities of interest.
- They broadcast content that is popular and relevant to a local, specific audience but is often overlooked by commercial or mass-media broadcasters.
- Community radio stations are operated, owned, and influenced by the communities they serve.
- Community radio plays an important role in dissemination of information about government schemes and policies to the common people in local languages.
- India is a land of diversity in terms of language, social practices, dialects and culture, a community radio can be a powerful tool to revive culture and languages that are dying.
- It can help give voice to the voiceless in the backward community.

Systematic Voters Education and Electoral Participation (SVEEP):

- It is the flagship program of the Election Commission of India for voter education, spreading voter awareness and promoting voter literacy in India.
- Since 2009, it has been working towards preparing India's electors and equipping them with basic knowledge related to the electoral process.
- SVEEP is designed according to the socio-economic, cultural and demographic profile of the state as well as the history of electoral participation in previous rounds of elections and learning thereof.

## TRAVELLING ABROAD A BASIC RIGHT, SAYS SC

### GS 2: Polity

#### Why in News?

- The right to travel abroad is a genuine and basic human right like marriage and family, the Supreme Court has observed in a recent order.
- The Supreme Court has allowed an IPS officer facing department proceedings to go on a private trip to the US and France to meet his family.

#### Highlights:

- The court was hearing an appeal filed by an IPS officer who was refused permission to take a private trip abroad to visit relatives as he had a departmental enquiry pending against him.
- “The right to travel abroad is an important basic human right for it nourishes independent and self-determining creative character of the individual, not only by extending his freedoms of action, but also by extending the scope of his experience,” a Bench led by Justice L. Nageswara Rao said in its order.
- The IPS officer was denied permission to travel abroad despite the fact that he had no criminal case against him. Yet both the Central Administrative Tribunal, Chennai Bench, and the Madras High Court denied him his right. The High Court upheld the tribunal’s position that he cannot travel abroad without vigilance clearance.
- Setting aside the order, the Supreme Court referred to its Maneka Gandhi judgment upholding the right to travel and the landmark U.S. Supreme Court case of 1958 Kent vs Dulles. The Bench quoted the majority opinion of Justice William O. Douglas in the latter case which said “freedom to go abroad has much social value and represents the basic human right of great significance”.
- The right to travel abroad is also covered under “personal liberty” in Article 21 in Maneka Gandhi v/s UOI 1978. The apex court also asserted that the right to travel is an essential fundamental right of an individual.
- The court said that this basic human right “also extends to private life; marriage, family and friendship”. These are part of human nature which can be “rarely affected through a refusal of freedom to go abroad”.
- Pendency of departmental proceedings cannot be a ground to prevent the appellant from travelling abroad, the court ordered.



# GOVERNANCE

## PROJECT SASHAKT

**GS 2: Governance | Government policies & interventions for development in various sectors & issues**

**Prelims level: Project Sashakt & particulars**

### Why in News?

- Public Sector Banks (PSBs) may now use provisions of Project Sashakt to deal with economically unviable projects where lenders could still initiate corporate insolvency proceedings if there is no other mode of resolution within 180 days.

### Highlights:

- Under the aegis of Project Sashakt, 35 banks have signed an inter-creditor agreement (ICA), which provides the framework to resolve assets through a bank-led resolution approach (BLRA). Under the agreement, if the lead bank is unable to implement a resolution plan in 180 days, the assets will then move to the National Company Law Tribunal (NCLT) process.

### Background:

- The Supreme Court, in its judgement held the Reserve Bank of India (RBI) directions issued on the treatment of defaults as 'ultra vires,' or not valid in respect to the existing legal framework. In its 'Resolution of Stressed Assets-Revised Framework', the RBI had called on lenders to identify assets "immediately on default," beginning with loans on which any amount was due from one to 30 days.

### What is Project Sashakt?

- Project Sashakt was proposed by a panel led by PNB chairman Sunil Mehta.
- Bad loans of up to ₹ 50 crore will be managed at the bank level, with a deadline of 90 days.
- For bad loans of ₹ 50-500 crore, banks will enter an inter-creditor agreement, authorizing the lead bank to implement a resolution plan in 180 days, or refer the asset to NCLT.
- For loans above ₹ 500 crore, the panel recommended an independent asset management company (AMC), supported by institutional funding through the alternative investment fund (AIF).
- The idea is to help consolidate stressed assets.

# NITI AAYOG & RMI RELEASE TECHNICAL ANALYSIS OF FAME II SCHEME

## GS 2: Governance | Government policies & interventions for development in various sectors & issues

### Why in News?

- The NITI Aayog and the Rocky Mountain Institute (RMI) released a report on opportunities for the automobile sector and government under the Faster Adoption and Manufacturing of Electric Vehicles II (FAME II) scheme.

### Highlights:

- The technical report titled '**India's Electric Mobility Transformation: Progress to Date and Future Opportunities**' quantifies the direct oil and carbon savings that the vehicles incentivized under FAME II will deliver.
- RMI is an Indian and global nonprofit organisation focused on driving the efficient and restorative use of resources.
- The report also quantifies the catalytic effect that FAME II and other measures could have on the overall Electric Vehicle(EV) market.
- According to the analysis, if FAME II and other measures – in public and private space – are successful, India could realize EV sales penetration of 30% of private cars, 70% of commercial cars, 40% of buses and 80% of two and three-wheelers by 2030.
- The FAME II scheme, which was notified by the Union Cabinet in February 2019, aims to further accelerate the government of India's commitment to a clean mobility future, sees the electrification of transportation as a primary focus area.
- FAME-II intends to catalyze the market for faster adoption of EVs to ensure durable economic growth and global competitiveness for India's automotive industry.

### Analysis of the report:

- Effects of FAME II will go beyond the vehicles that are eligible under the FAME II
- There are considerable energy and CO2 savings associated with the two, three, and four-wheeled vehicles and buses covered by FAME II over their lifetime, as well as the potential savings associated with greater adoption levels by 2030
- The electric buses covered under FAME II will account for 3.8 billion vehicle kilometres travelled (e-vkt) over their lifetime.

- In order to capture the potential opportunity in 2030, batteries must remain a key focal point as they will continue to be the key cost driver of EVs.
- Vehicles eligible under FAME II scheme can cumulatively save 5.4 million tonnes of oil equivalent over their lifetime worth Rs 17.2 thousand crores.
- EVs sold through 2030 could cumulatively save 474 million tonnes of oil equivalent (Mtoe) worth INR 15 lakh crore and generate net CO2 savings of 846 million tonnes over their operational lifetime.

### Way forward:

- India needs the auto industry's active participation to ease electric mobility transition. The auto and battery industries could collaborate to enhance customer awareness, promote domestic manufacturing, promote new business models, conduct R&D for EVs and components, consider new business models to promote EVs
- The government should focus on a phased manufacturing plan to promote EVs, provide fiscal and non-fiscal incentives for phased manufacturing of EVs and batteries. Different government departments can consider a bouquet of potential policies, such as congestion pricing, ZEV credits, low emission/exclusion zones, parking policies, etc. to drive adoption of EVs.
- India's electric vehicle market is poised for growth with a blend of policies, such as FAME II, and the automotive industry's willingness to provide new mobility solutions to the citizens of the country. Such a transformation will create enormous economic, social and environmental benefits for the citizens of India.

## SOLIDARITY HUMAN CHAIN

### GS 2: Governance | Health & Education

#### Why in News?

- Ministry of Health and Family Welfare along with World Health Organization (WHO) formed a Solidarity Human Chain as part of the World Health Day celebrations.

#### Solidarity Human Chain:

- It aims to reaffirm their commitment to bridging gaps and working collaboratively towards Universal Health Coverage (UHC).
- April 7 of each year marks the celebration of World Health Day.
- This year's World Health Day will focus on equity and solidarity.

- From its inception at the First Health Assembly in 1948 and since taking effect in 1950, the celebration has aimed to create awareness of a specific health theme to highlight a priority area of concern for the WHO.
- Over the past 50 years this has brought to light important health issues such as mental health, maternal and child care, and climate change.

## **NATIONAL SEMINAR ON GREENERY AND LANDSCAPING**

### **GS 2: Governance | Government policies & interventions for development in various sectors & issues**

#### **Why in News?**

- CPWD organizes National Seminar on “Greenery and Landscaping

#### **Highlights:**

- Green Urban Areas play an important role in the social and natural sustainability and improve quality of life.
- Greenery and Dense plantation have a major impact on the conservation of energy, and reduce the energy requirement of the building.
- In order to maintain sustainable environment, pollution free clean air, it is essential to take up the plantation work.
- Cost of land has increased manifold and high rise buildings are coming up, people are getting hardly any area for the greenery. Keeping in view the same, plantation, greenery and other environment friendly applications should be planned around the building by way of dwarf trees, small shrubs, ground covers, hanging baskets, creepers, etc.
- There is need to adopt wood alternative in building construction. Use of alternate materials like Bamboo needs to be encouraged.
- Orientation and proper training should be imparted to the persons engaged in landscaping and Horticulture, for implementation of the new technologies in this field to save the labour and cost of the project in long run.
- Emphasis should be given for conserving and transplanting indigenous and grown up trees.
- Herbal and medicinal plants need to be encouraged. Herbal plants are useful for keeping the life healthy.
- Application of Organic Manure needs to be adopted for healthy and nutritious food.

- Water conserving irrigation method like drip irrigation, Sprinkler irrigation and pop up system needs to be adopted.
- Plants and greenery help in reducing adverse effects of climate change. Therefore, every individual should adopt minimum one tree.
- Green initiative needs to be taken up on a mission mode by every nation, every city, every society and every individual so that future generations may lead happy and healthy life.

## **GLOBAL INITIATIVE OF ACADEMIC NETWORKS (GIAN)**

### **GS 2: Governance | Government policies & interventions for development in various sectors & issues**

#### **Prelims level: Global Initiative of Academic Networks (GIAN)**

#### **Why in News?**

- The National Institute of Technology, Tiruchi, had launched a programme under the Global Initiative of Academic Networks (GIAN) in Higher Education. It aimed at tapping the talent pool of scientists and entrepreneurs.

#### **GIAN program:**

- Global Initiative of Academic Networks (GIAN) in Higher Education was launched in 2015. It is a program of Ministry of Human Resource and Development.
- It aims at tapping the talent pool of scientists and entrepreneurs to engage with the institutes of higher education in India to augment the country's existing academic resources, accelerate the pace of quality reforms, and further strengthen India's scientific and technological capabilities.

#### **Objectives of GIAN:**

- To increase the footfalls of reputed international faculty in the Indian academic institutes.
- Provide opportunity to our faculty to learn and share knowledge and teaching skills in cutting edge areas.
- To provide opportunity to our students to seek knowledge and experience from reputed International faculty.
- To create avenue for possible collaborative research with the international faculty.
- Develop high quality course material in niche areas, both through video and print that can be used by a larger body of students and teachers.
- To document and develop new pedagogic methods in emerging topics of national and international interest.

## SC DIRECTS ECI TO INCREASE RANDOM CHECKING OF VVPAT SLIPS

GS 2: Governance | Government policies & interventions for development in various sectors & issues

Prelims Level: Lok Sabha Elections, VVPAT

### Why in News?

- The Supreme Court on April 8, 2019 directed the Election Commission of India (ECI) to increase the random checking of VVPAT slips from 1 EVM to 5 EVMs in each assembly of a parliamentary constituency in Lok Sabha Elections 2019.

### Highlights:

- The bench headed by Chief Justice Ranjan Gogoi and comprising Justices Deepak Gupta and Sanjiv Khanna said that the objective behind the move is to ensure a higher degree of accuracy and conduct free and fair elections.
- However, the bench did not agree to the request of petitioners to match the VVPAT slips of 50 percent EVMs as it would require huge manpower and is not feasible due to infrastructural difficulties.
- The Apex Court gave this direction after hearing a petition filed by leaders of 21 Opposition political parties led by Andhra Pradesh Chief Minister Chandrababu Naidu.
- The petitioners were demanding counting and cross verification of the VVPAT slips in at least 50 percent randomly chosen polling stations within each Assembly Constituency.
- The petitioners also challenged the decision of the Election Commission to verify VVPAT of only one randomly selected booth of a constituency.
- In a response to this matter, the Election Commission filed counter-affidavit citing logistical difficulties in carrying out 50 percent verification of VVPAT. The commission said that the verification would delay the announcement of results by at least 6 days

### VVPAT:

- The Voter Verifiable Paper Audit Trails (VVPAT) is a paper slip generated by the Electronic Voting Machine (EVM) every time a voter casts his vote, recording the party to whom the vote was made. The VVPAT slip is kept in a sealed cover.
- VVPAT slip counting takes place in the VVPAT counting booths under the close monitoring of the returning officer and direct oversight of the observer.

## NIRF & ARIIA RANKINGS 2019

### GS 2: Governance | Government policies & interventions for development in various sectors & issues

#### Prelims Level: NIRF & ARIIA Rankings 2019

#### Why in News?

- The President of India has announced the results for National Institutional Ranking Framework (NIRF)-2019 and Atal Ranking of Institutions on Innovation Achievements (ARIIA)-2019. These were the fourth edition of NIRF Rankings and first edition of ARIIA ranking.

#### Highlights:

- Indian Institute of Madras (IIT Madras) has topped the list in 'overall category'.
- 7 IITs are among the first ten position holders whereas JNU, Delhi has secured the seventh rank.
- IISc Bengaluru has topped 'University category'.
- Banaras Hindu University (BHU) has retained its third position in the top 10 universities in the country for the third consecutive year.

#### NIRF:

- The National Institutional Ranking Framework (NIRF) was launched by the Minister of Human Resource Development on 29th September 2015.
- This framework outlines a methodology to rank institutions across the country.
- The parameters broadly cover
  - ✓ Teaching, Learning and Resources,
  - ✓ Research and Professional Practices,
  - ✓ Graduation Outcomes,
  - ✓ Outreach and Inclusivity and
  - ✓ Perception

#### ARIIA Rankings 2019:

- IIT Madras has topped the 'Public funded Institutions Category'.
- Vellore Institute of Technology, Tamil Nadu has topped the 'Private Institutions Category'.

#### ARIIA:

- It is an initiative of Ministry of Human Resource Development (MHRD), Govt. of India.

- To systematically rank all the major higher educational institutions and universities in India on indicators related to “Innovation and Entrepreneurship Development” amongst students and faculties.
- Major Indicators are:
  - ✓ Budget & Funding Support.
  - ✓ Infrastructure & Facilities.
  - ✓ Awareness, Promotions & support for Idea Generation & Innovation.
  - ✓ Promotion & Support for Entrepreneurship Development.
  - ✓ Innovative Learning Methods & Courses.
  - ✓ Intellectual Property Generation, Technology Transfer & Commercialization.
  - ✓ Innovation in Governance of the Institution.
  - ✓ ARIIA focuses on quality of innovations and tries to measure the real impact created by these innovations nationally and internationally.

## **PRADHAN MANTRI FASAL BIMA YOJA**

### **GS 2: Governance | Government policies & interventions for development in various sectors & issues**

#### **Why in News?**

- The new Crop Insurance Scheme is in line with One Nation – One Scheme theme. It incorporates the best features of all previous schemes and at the same time, all previous shortcomings / weaknesses have been removed. The PMFBY will replace the existing two schemes National Agricultural Insurance Scheme as well as the Modified NAIS.

#### **Objectives:**

- To provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests & diseases
- To stabilise the income of farmers to ensure their continuance in farming.
- To encourage farmers to adopt innovative and modern agricultural practices.
- To ensure flow of credit to the agriculture sector.

#### **Highlights of the scheme:**

- There will be a uniform premium of only 2% to be paid by farmers for all Kharif crops and 1.5% for all Rabi crops. In case of annual commercial and horticultural crops, the premium to be paid by farmers will be only 5%. The premium rates to be paid by farmers are very



low and balance premium will be paid by the Government to provide full insured amount to the farmers against crop loss on account of natural calamities.

- There is no upper limit on Government subsidy. Even if balance premium is 90%, it will be borne by the Government.
- Earlier, there was a provision of capping the premium rate which resulted in low claims being paid to farmers. This capping was done to limit Government outgo on the premium subsidy. This capping has now been removed and farmers will get claim against full sum insured without any reduction.
- The use of technology will be encouraged to a great extent. Smartphones will be used to capture and upload data of crop cutting to reduce the delays in claim payment to farmers. Remote sensing will be used to reduce the number of crop cutting experiments.
- PMFBY is a replacement scheme of NAIS / MNAIS, there will be exemption from Service Tax liability of all the services involved in the implementation of the scheme. It is estimated that the new scheme will ensure about 75-80 per cent of subsidy for the farmers in insurance premium.

### Farmers to be covered:

- All farmers growing notified crops in a notified area during the season who have insurable interest in the crop are eligible.
- **Compulsory coverage:** The enrolment under the scheme, subject to possession of insurable interest on the cultivation of the notified crop in the notified area, shall be compulsory for following categories of farmers:
- Farmers in the notified area who possess a Crop Loan account/KCC account (called as Loanee Farmers) to whom credit limit is sanctioned/renewed for the notified crop during the crop season. and
- Such other farmers whom the Government may decide to include from time to time.
- **Voluntary coverage:** Voluntary coverage may be obtained by all farmers not covered above, including Crop KCC/Crop Loan Account holders whose credit limit is not renewed.

### Unit of Insurance:

- The Scheme shall be implemented on an 'Area Approach basis' i.e., Defined Areas for each notified crop for widespread calamities with the assumption that all the insured farmers, in a Unit of Insurance, to be defined as "Notified Area" for a crop, face similar risk

exposures, incur to a large extent, identical cost of production per hectare, earn comparable farm income per hectare, and experience similar extent of crop loss due to the operation of an insured peril, in the notified area.

## **DATA USERS' CONFERENCE DELIBERATES ON STRATEGY AND QUESTIONNAIRE FOR CENSUS 2021**

**GS 2: Governance | Government policies & interventions for development in various sectors & issues**

### **Why in News?**

- For the first time in the 140 years long Census exercise in India, data is proposed to be collected through a mobile app.

### **Highlights:**

- The data users conference is the first formal interaction of the census organization with various stakeholders. The two-day conference is expected to have intensive deliberations on the proposed Strategy and the draft Questionnaire for the 2021 Census.
- The results of deliberations will form the basis for finalizing the questions and the methodology for the census.
- enumerators would be encouraged to use their own mobile phone for which they would be paid appropriate remuneration or else there is also option to collect and record the data through paper schedules which will eventually be submitted electronically by them.
- 33 lakh enumerators would be mobilized for data collection for which notification has already been issued.
- The reference date is 1st October 2020 for Jammu & Kashmir and snowbound areas of Himachal Pradesh & Uttarakhand while for the rest of the country the reference date is 1st March 2021.
- Census is not just an exercise of headcount but also provides invaluable socio-economic data which forms a credible basis for informed policy formulation and allocation of resources. The changing demographics and socio-economic parameters reflected by the census helps in the reformulation of the country's plans for the economic development and welfare schemes for its people.
- Besides, census data caters to the Constitutional requirement of delimitation of constituencies and reservation of seats for SCs & STs, Union Home Secretary said.

# NAMAMI GANGE GETS GLOBAL RECOGNITION AT WORLD SUMMIT

## GS 2: Governance

### Why in News?

- The National Mission for Clean Ganga (NMCG) was awarded the distinction of “Public Water Agency of the Year” by Global Water Intelligence at the Global Water Summit in London.

### Highlights:

- The Global Water Awards are presented at the Global Water Summit, the major business conference for the water industry worldwide.
- The awards recognise excellence across the international water industry and reward those initiatives in the water, waste water, and desalination sectors, which bring remarkable improvements in the lives of people, according to NMCG, which is under the Union Ministry of Water Resources, River Development and Ganga Rejuvenation.
- An integrated mission for Ganga rejuvenation, the Namami Gange programme has a comprehensive multi-sector intervention with multi-stakeholder involvement and adopts a basin-based approach.

### Global Water Summit:

- Global Water Summit is the annual business conference for the water industry worldwide.
- The summit attracts high-level executives from industry, municipalities and international water companies and provides the opportunity to connect with hard-to-reach industry insiders that will not attend any other water event.
- The summit provides a platform for connecting the public and private sector and for accelerating change and innovation within the sector, it attracts the most influential industry representatives and also becomes a forum for business development and expanding your network.

### Namami Gange Programme:

- Namami Gange Programme is an umbrella programme which integrates previous and currently ongoing initiatives by enhancing efficiency, extracting synergies and supplementing them with more comprehensive & better coordinated interventions.
- Government of India is supplementing the efforts of the state governments in addressing the pollution of river Ganga by providing financial assistance to the states.

## NMCG:

- National Mission for Clean Ganga, endeavors to deploy best available knowledge and resources across the world for Ganga rejuvenation.
- Clean Ganga has been a perennial attraction for many international countries that have expertise in river rejuvenation.

## **ATMOSPHERE & CLIMATE RESEARCH-MODELLING OBSERVING SYSTEMS & SERVICES (ACROSS)**

### **GS 2: Governance | Government policies & interventions for development in various sectors & issues**

#### **Prelims level: ACROSS scheme**

#### **Why in News?**

- The Cabinet Committee has approved continuation of the nine sub-schemes of the umbrella scheme “Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS)” during 2017- 2020.

#### **About the scheme:**

- ACROSS scheme pertains to the atmospheric science programs of the Ministry of Earth Sciences (MoES).
- It addresses different aspects of weather and climate services, which includes warnings for cyclone, storm surges, heat waves, thunderstorms etc.
- The ACROSS scheme consists of nine sub-programmes which are multidisciplinary and multi institutional in nature and will be implemented in an integrated manner.
- To provide a reliable weather and climate forecast for betterment of society, the scheme will aim at improving skill of weather and climate forecast through sustained observations, intensive R & D.

#### **Benefits of the Scheme:**

- The scheme will provide improved weather, climate and ocean forecast and services, thereby ensuring transfer of commensurate benefits to the various services.
- It will also provide a sizable number of scientific and technical staff along with requisite administrative support, thereby generating employment.
- To ensure last-mile connectivity of the weather-based services to the end -user, a large number of agencies like the Krishi Vigyana Kendras of ICAR, Universities and local municipalities are roped in thus generating employment opportunities to many people.

## ATAL BIMIT VYAKTI KALYAN YOJNA

### GS 2: Governance | Government policies

#### Why in News?

- The Employee's State Insurance (ESI) has approved a scheme named 'Atal Bimit Vyakti Kalyan Yojna' for Insured Persons (IP) covered under the Employees' State Insurance Act, 1948.

#### Highlights:

- It aims to financially support those who lost their jobs or rendered jobless for whatsoever reasons due to changing employment pattern.
- Under the scheme, relief will be payable in cash directly to bank account of insured persons in case of unemployment.
- This financial assistance will be given to insured persons even while they search for new engagement.
- Beneficiary insured workers will be paid money, from their own contribution towards ESI scheme, in cash through bank account transfer.
- Under this scheme, workers will be able to draw 47% of their total contributions towards ESIC after remaining unemployed for at least three months from date of leaving their previous jobs.
- They can choose to receive the cash at one go or in instalments. It will be applicable to all factories and establishments employing at least 10 workers

## CONTROLLER GENERAL OF DEFENCE ACCOUNTS (CGDA)

### GS 2: Governance

#### Why in News?

- Shri Rajendra Kumar Nayak took over as the 52nd Controller General of Defence Accounts. He is from the Indian Defence Accounts Service.

#### Defence Accounts Department (DAD):

- Defence Accounts Department, with the Controller General of Defence Accounts at its head, functions under the administrative control of the Financial Adviser (Defence Services).
- The duties of the Defence Accounts Department are broadly audit, payment and accounting of all charges pertaining to the Armed Forces, including bills for supplies and

services rendered and for construction/repair works, pay and allowances miscellaneous charges, pensions, etc.

- The Department is also responsible for the audit of cash and stores account kept by the various units and formations (including arsenals, workshops and storage depots) in the three services and maintenance of pay accounts of Army Officers and combatants of Army.
- They also maintain Accounts relating to works services and audit the construction and other accounts relating to works project maintained by Military Engineer Services.
- In addition to the duties mentioned above, the Controller of Defence Accounts function as Local Financial Advisers to the General Officers Commanding-in-Chief of Commands, Area Commanders, etc.
- The Defence Accounts Department comes under the Ministry of Defence with the Controller General of Defence Accounts as the Head of the Department.
- The organization of the Defence Accounts Department corresponds broadly to the organization of the three Services. In addition, it also caters for the Ordnance Factories.

## **INVESTOR EDUCATION AND PROTECTION FUND (IEPF) AUTHORITY RECOVERS RS 1514 CR OF DEPOSITORS' MONEY**

### **GS 2: Governance**

#### **Why in News?**

- In a major success, the IEPF Authority has been able to enforce The Peerless General Finance and Investment Company Limited to transfer deposits worth about Rs 1514 Cr to IEPF.

#### **Highlights:**

- This depositor's money was pending with The Peerless General Finance and Investment Company Limited for the last 15 years.
- This amount was taken by the company by issuing about 1.49 Cr Deposit Certificates and include more than 1 Cr individual investors.
- The data submitted by the company reveals that 50.77 percent of the total amount was taken in the form of deposit certificates of the value of Rs. 2000 or less. Number wise such certificates form 85.32 percent of the total number of certificates issued.
- The majority of these investors are common citizens belonging to the lower and middle-income group including daily wage earners, etc.

- Geographically, the investors involved belong to 30 states and Union territories of the Country. Majority of the investors belong to the state of West Bengal.
- The Authority has also acted against companies that have transferred the unpaid dividend amount to IEPF but have failed to transfer shares in accordance with section 124(6) of the Act. In some other cases, the companies are showing unclaimed and unpaid amounts in their Balance Sheets but have not transferred such amounts to IEPF even after seven years. Based on the above, the authority has issued more than 4000 notices to the companies under section 206(4) of the Act for calling information.

### **IEPF Authority:**

- IEPF Authority has been set up under the Ministry of Corporate Affairs, Government of India as a statutory body under Companies Act 2013 to administer the Investor Education and Protection Fund with the objective of promoting Investor's Education, Awareness and Protection. The Authority takes various initiatives to fulfil its objectives through Investor Awareness Programmes and various other mediums like Print, Electronic, Social Media, and Community Radio etc. The size of IEPF Fund has almost doubled within one year with an accumulated corpus of about Rs 4138 Cr. The companies have also transferred about 65.02 Cr valuing Rs 21,232.15 Cr. Secretary Ministry of Corporate Affairs is the Chairperson of the Authority. Joint Secretary Ministry of Corporate Affairs is the Chief Executive Officer of the Authority.

## **TRADITIONAL KNOWLEDGE DIGITAL LIBRARY (TKDL)**

### **GS 2: Governance**

#### **Why in News?**

- CSIR jointly with Department of AYUSH (now Ministry) developed the Traditional Knowledge Digital Library (TKDL).

#### **TKDL:**

- A globally recognized proprietary database on Indian systems of medicine for preventing bio-piracy and misappropriation of our traditional knowledge.
- The objective of the library is to protect the ancient and traditional knowledge of the country by documenting it electronically and classifying it as per international patent classification systems.
- To facilitate the non-patent database serves to foster modern research based on traditional knowledge, as it simplifies access to this vast knowledge of remedies or practices.

# **PAYROLL REPORTING IN INDIA - A FORMAL EMPLOYMENT PERSPECTIVE**

## **GS 2: Governance**

### **Prelims level: EPF, ESI**

#### **Why in News?**

- The Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation has released the press note on Employment Outlook of the country
- This is done using information on the number of subscribers who have subscribed under three major schemes, namely, the Employees' Provident Fund (EPF) Scheme, the Employees' State Insurance (ESI) Scheme and the National Pension Scheme (NPS).

#### **Employees Provident Fund (EPF):**

- (EPF) is a mandatory savings scheme under the Employees' Provident Funds and Miscellaneous Provisions Act, 1952.
- It is managed under the aegis of Employees' Provident Fund Organization (EPFO). It covers every establishment in which 20 or more persons are employed (and certain other establishments which may be notified by the Central Government even if they employ less than 20 persons each), subject to certain conditions and exemptions as provided for in the Act.
- The pay ceiling is Rs.15000/- per month. Persons drawing pay above Rs. 15,000 are exempted or can be enrolled with some permission or on voluntary basis.
- The number of members subscribing to this scheme gives an idea of the level of employment in the formal sector.
- The data on subscribers-new members, exited members and those subscribers that re-started their subscription is sourced from EPFO.

#### **Employees' State Insurance (ESI) Scheme:**

- The Employees State Insurance Act, 1948 is applicable to non-seasonal, manufacturing establishments employing 10 or more workers. For health and medical institutions, the threshold limit is 20 or more workers.
- ESI Scheme for India is an integrated social security scheme tailored to provide socio-economic protection to the workers in the organized sector and their dependents, in contingencies, such as Sickness, Maternity and Death or Disablement due to an employment injury or occupational hazard.



- The wage ceiling is Rs.21000/- per month. Subscribers are termed as Insured Persons (IP) and a new IP number can also arise due to change in employment. Employees may cease to pay contribution due to wage exceeding the statutory ceiling of Rs.21000/- per month or owing to resignation, death, retirement or dismissal.
- Data is sourced from Employees' State Insurance Corporation (ESIC) and the information may have an element of duplication with EPF data and is thus not additive.

## **E-WAY BILL SYSTEM**

### **GS 2: Governance**

#### **Prelims level: E-Way Bill System**

#### **Why in News?**

- Recently, the Finance Ministry has introduced changes in the e-way bill system.

#### **Highlights:**

- The new enhanced system would come with auto-calculation of distance between the source and destination, based on the PIN codes.
- The user would be allowed to enter the actual distance as per the movement of goods, which will be limited to 10 per cent more than the auto calculated distance displayed.
- The government has decided not to permit generation of multiple e-way bills based on one invoice. It means if the e-way bill is generated once with a particular invoice number, then none of the parties – consignor, consignee or transporter – can generate another e-way bill with the same invoice number.
- The enhanced feature would permit extension of validity of the e-way bill when the goods are in transit/movement.
- The e-way bill portal would also generate a report for users on the list of e-way bills about to expire. This would help the user to analyse the data and ensure that the goods reach the destination within the valid time period.
- These enhanced features would add value to both, businesses and tax officers as the mixed bag aims at propelling ease of doing business together with acting as a deterrent for tax evaders.
- Touted as an anti-evasion tool, the electronic way or e-way bill was rolled out on April 1, 2018, for moving goods worth over Rs 50,000 from one state to another.
- The same for intra or within the state movement was rolled out in a phased manner from April 15.

# WHO GUIDELINES ON PHYSICAL ACTIVITY FOR CHILDREN UNDER 5 YEARS OF AGE

## GS 2: Governance - Health & Education

### Why in News?

- The WHO issued guidelines as part of a campaign to tackle the global obesity crisis and ensure that young children grow up fit and well, particularly since development in the first five years of life contributes to children's motor and cognitive development and lifelong health.

### Recommendations:

- Infants (less than 1 year) should:
- Be physically active several times a day in a variety of ways, particularly through interactive floor-based play; more is better. For those not yet mobile, this includes at least 30 minutes in prone position (tummy time) spread throughout the day while awake.
- Not be restrained for more than 1 hour at a time (e.g. prams/strollers, high chairs, or strapped on a caregiver's back). Screen time is not recommended. When sedentary, engaging in reading and storytelling with a caregiver is encouraged. Have 14–17h (0–3 months of age) or 12–16h (4–11 months of age) of good quality sleep, including naps.

### Children 1-2 years of age should:

- Spend at least 180 minutes in a variety of types of physical activities at any intensity, including moderate-to-vigorous-intensity physical activity, spread throughout the day; more is better. Not be restrained for more than 1 hour at a time (e.g., prams/strollers, high chairs, or strapped on a caregiver's back) or sit for extended periods of time. For 1-year-olds, sedentary screen time (such as watching TV or videos, playing computer games) is not recommended. For those aged 2 years, sedentary screen time should be no more than 1 hour; less is better. When sedentary, engaging in reading and storytelling with a caregiver is encouraged. Have 11-14 hours of good quality sleep, including naps, with regular sleep and wake-up times.

### Children 3-4 years of age should:

- Spend at least 180 minutes in a variety of types of physical activities at any intensity, of which at least 60 minutes is moderate- to vigorous intensity physical activity, spread throughout the day; more is better. Not be restrained for more than 1 hour at a time (e.g., prams/strollers) or sit for extended periods of time. Sedentary screen time should be no

more than 1 hour; less is better. When sedentary, engaging in reading and storytelling with a caregiver is encouraged.

- Have 10–13h of good quality sleep, which may include a nap, with regular sleep and wake-up times.

## **SEMINAR ON 'USE OF TECHNICAL TEXTILES IN WATER RESOURCES WORKS'**

### **GS 2: Governance**

#### **Why in News?**

- One day Technical Seminar was organized by Ministry of Water Resources, River Development and Ganga Rejuvenation on “Use of Technical Textiles in Water Resources Works”.

#### **Technical Textiles:**

- A technical textile is a textile product manufactured for non-aesthetic purposes, where function is the primary criterion.
  - ✓ Technical textiles include
  - ✓ Textiles for automotive applications, medical textiles (e.g., implants)
  - ✓ Geotextiles (reinforcement of embankments)
  - ✓ Agro-textiles (textiles for crop protection)
  - ✓ And protective clothing (e.g., heat and radiation protection for fire fighter clothing molten metal protection for welders, stab protection and bulletproof vests, and spacesuits).

#### **Significance of technical textile:**

- Technical Textiles are being used globally for last several decades.
- These materials have provided innovative engineering solutions for several applications in civil and geotechnical engineering, for infrastructure water resources projects.
- Even while Technical Textiles have been extensively used in developed as well as many developing countries, India has yet to capitalise the technical, economic and environmental benefits on large scale. Various parts of India are subjected to floods and environmental degradation. In some of the terrains, the flood management and control can rely on Technical Textiles tubes, containers and bags. Technical Textiles have been found to perform better than concrete as water protection component because of permeability, flexibility and ease of underwater placement.

## ICMR LAUNCHES 'MERA INDIA' TO ELIMINATE MALARIA BY 2030

### GS 2: Governance - Health & Education

#### Why in News?

- The Indian Council of Medical Research has launched the MERA India – a conglomeration of partners working on malaria control – in order to prioritise, plan and scale up research to eliminate the disease from India by 2030.

#### Malaria Elimination Research Alliance (MERA) India:

- The MERA India does not intend to duplicate international efforts rather complement this on a national scale while contributing to the broader global agenda.
- The alliance will facilitate trans-institutional coordination and collaboration around a shared research agenda which responds not only to programmatic challenges and addresses gaps in available tools, but also proactively contributes to targeted research.
- It aims to harness and reinforce research in coordinated and combinatorial ways in order to achieve a tangible impact on malaria elimination.
- The National Vector Borne Diseases Control Program (NVBDCP) of India has developed a comprehensive framework to achieve the overarching vision of “Malaria free India by 2030”.

#### Background:

- Over the past two decades, India has made impressive progress in malaria control.
- The malaria burden has declined by over 80 per cent, 2.03 million cases in 2000 to 0.39 million in 2018, and malaria deaths by over 90 per cent, 932 deaths in 2000 to 85 in 2018.
- This success has provided a strong foundation for the commitment from the leadership of the government of India to eliminate malaria from India by 2030.

## PRADHAN MANTRI JAN DHAN YOJANA (PMJDY) SCHEME

### GS 2: Governance

#### Why in News?

- Five years after its launch, the Pradhan Mantri Jan Dhan Yojana (PMJDY) scheme has almost achieved a total balance of ₹1-lakh crore.

#### Highlights:

- Public sector banks have the lion's share in total balance at ₹79,177 crore, followed by regional rural banks and private sector banks maintaining ₹17,648 crore and ₹2,926 crore, respectively.

- The scheme focuses on rural areas with primacy given to women. Of the 35.50-crore account holders, those from rural and semi-urban regions were 21 crore. Female beneficiaries were 18.88 crore.
- The average balance in PMJDY accounts has also been going up.

### PMJDY:

- The National Mission of Financial Inclusion named as the Pradhan Mantri Jan Dhan Yojana seeks to integrate the poorest of the poor with bank accounts.
- The primary aim of this scheme is to provide poor people access to bank accounts.
- The scheme covers both urban and rural areas of India.
- All bank accounts will be linked to a debit card which would be issued under the Ru-Pay scheme. Rupay is India's own unique domestic card network owned by National Payments Corporation of India and has been created as an alternative to Visa and Mastercard. Every individual who opens a bank account becomes eligible to receive an accident insurance cover of up-to Rs 1 Lakh for his entire family.
- Life Insurance coverage is also available under PMJDY. Only one person in the family will be covered and in case of the person having multiple cards/accounts, the benefit will be allowed only under one card e. one person per family will get a single cover of Rs 30,000.
- The scheme also provides incentives to business and banking correspondents who serve as link for the last mile between savings account holders and the bank by fixing a minimum monthly remuneration of Rs 5000.

## SCIENCE & TECHNOLOGY

### WHATSAPP UNVEILS 'CHECKPOINT TIPLINE'

**GS 3: Science & Technology | Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology**

#### Why in News?

- WhatsApp unveiled its 'Checkpoint Tipline', where people can check the authenticity of information received as the messaging giant looks to crack down on fake news ahead of the general election in the country.

#### Checkpoint Tipline:

- Launched by PROTO, an India-based media skilling startup, this tipline will help create a database of rumours to study misinformation during elections for Checkpoint - a research project commissioned and technically assisted by WhatsApp

- Users in India can submit misinformation or rumours they receive to the Checkpoint Tipline on WhatsApp (+91-9643-000-888).
- Once a WhatsApp user shares a suspicious message with the tipline, PROTO's verification centre will seek to respond and inform the user if the claim made in a message shared is verified or not. The response will indicate if the information is classified as true, false, misleading, disputed or out of scope and include any other related information that is available. The verification centre, in turn, will be able to review rumors in the form of pictures, video links or text. Apart from English, it will cover four regional languages – Hindi, Telugu, Bengali and Malayalam.

### Significance:

- PROTO will also look at working with organisations at the grassroots level to submit misinformation circulating across different regions in India during the election period.
- The initiative will help create global benchmarks for those wishing to tackle misinformation in their own markets.

## NEW GENETIC METHOD TO EMPOWER CONSERVATION

**GS 3: Science & Technology | Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology**

**Prelims level: Multiplex polymerase chain reaction**

### Why in News?

- A team of scientists at Stanford University and the National Centre for Biological Sciences at India's Tata Institute of Fundamental Research have developed a method for extracting genetic information.

### Highlights:

- The new method is faster and cheap and collects information from degraded and left-behind materials, such as feces, skin or saliva, and from food products suspected of containing endangered animals.
- It will help wildlife conservationists aiming to protect endangered species, but they were unable to collect the DNA samples from rare and elusive animals.
- The new method relies on identifying multiple, short portions of DNA segments in a single experiment (a multiplex PCR), followed by 'next-generation sequencing', in which multiple fragments of DNA can be decoded simultaneously, and several times, in an automated process.

## Multiplex PCR:

- Multiplex polymerase chain reaction refers to the use of polymerase chain reaction to amplify several different DNA sequences simultaneously.

## BLACK HOLE

**GS 3: Science & Technology | Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology**

**Prelims level: Black hole, Event Horizon Telescope (EHT)**

### Why in News?

- The first photograph of a black hole was revealed by Event Horizon Telescope (EHT).

### Black hole:

- A black hole is a region of space whose mass is so large and dense that not even light can escape its gravitational attraction. Because no light can escape, it is black and invisible.
- There's a boundary at the edge of a black hole called the event horizon, which is the point of no return – any light or matter that crosses that boundary is sucked into the black hole.
- It would need to travel faster than the speed of light to escape, which is impossible.

### What is Singularity?

- Anything that crosses the event horizon is destined to fall to the very centre of the black hole and be squished into a single point with infinite density, called the singularity.

### Where are black holes found?

- Supermassive black holes are found at the centre of most galaxies, including our own Milky Way. The one in our galaxy is called Sagittarius A\* and is one of those the Event Horizon Telescope has been attempting to photograph.
- Sagittarius A\* isn't the only black hole in our galaxy, though. Earlier this year, astronomers discovered another 12 within three light-years of it, suggesting there could be upwards of 10,000 black holes around the galactic centre.

### Where do black holes are formed?

- Stellar mass black holes form when a star with a mass greater than three times that of our sun runs out of fuel. It explodes into a supernova and collapses into an extremely dense core that we know as a black hole – something predicted by Albert Einstein's general theory of relativity.

- Supermassive black holes are believed to form at the same time as the galaxy that surrounds them, but astronomers aren't sure exactly how.
- Einstein's theory also predicts the size and shape of the black holes that the Event Horizon Telescope is trying to photograph.

### **Event Horizon Telescope (EHT):**

- The Event Horizon Telescope (EHT) is a large telescope array consisting of a global network of radio telescopes and combining data from several very-long-baseline interferometry (VLBI) stations around the Earth. The aim of the EHT project is to observe the immediate environment of supermassive black holes, with an angular resolution high enough to resolve structures on the size scale of the black hole's event horizon. The first image of a black hole, the supermassive one at the center of galaxy Messier 87, was published by the EHT Collaboration on April 10, 2019.
- The black hole was given the nickname Pōwehi, meaning "embellished dark source of unending creation" in Hawaiian.

## **PHASE 4 OF GEOSYNCHRONOUS SATELLITE LAUNCH VEHICLE (GSLV)**

**GS 3: Science & Technology | Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology**

**Prelims level: GSLV**

### **Why in News?**

- The Union Cabinet, chaired by the Prime Minister, has approved ongoing GSLV continuation programme Phase-4 consisting of five GSLV flights during the period 2021-2024. The GSLV Programme - Phase 4 will enable the launch of 2 tonne class of satellites for Geo-imaging, Navigation, Data Relay Communication and Space Sciences.

### **Financial implications:**

- The total fund requirement is Rs. 2729.13 Crores and includes the cost of five GSLV vehicles, essential facility augmentation, Programme Management, and Launch Campaign along with the additional funds required for meeting the scope of the ongoing GSLV Continuation Programme.

### **Benefits:**

- The GSLV Continuation Programme - Phase 4 will meet the launch requirement of satellites for providing critical Satellite Navigation Services, Data Relay Communication



for supporting the Indian Human spaceflight programme and the next interplanetary mission to Mars. This will also ensure the continuity of production in the Indian industry.

### **Implementation Strategy and targets:**

- The GSLV Continuation Programme – Phase 4 will meet the demand for the launch of satellites at a frequency up to two launches per year, with maximal participation by the Indian industry. All the operational flights would be completed during the period 2021-24.

### **Major impact:**

- The operationalization of GSLV has made the country self-reliant in the launching capability of 2 tonne class of satellites for communication & meteorological satellites. The GSLV Continuation Programme will sustain & strengthen the capability and self-reliance in the launching of similar satellites for national requirements including next-generation navigation satellites, data relay communication satellites and interplanetary missions.

### **Background:**

- GSLV has enabled independent access to space for 2 tonne class of satellites to Geosynchronous Transfer Orbit (GTO). One of the very significant outcomes of the GSLV Continuation Programme is the mastering of the highly complex cryogenic propulsion technology, which is an essential technological capability to launch communication satellites to GTO. This has also paved the way for the development of a high thrust Cryogenic engine & stage for the next generation launch vehicle i.e. GSLV Mk-III.
- With the recent successful launch of GSLV-F11 on 19th December 2018, GSLV has successfully orbited 10 national satellites. GSLV with the indigenous Cryogenic Upper Stage has established itself as a reliable launch vehicle for communication, navigation and meteorological satellites and also to undertake future interplanetary missions.
- GSLV Continuation Programme was initially sanctioned in 2003, and two phases have been completed and the third phase is in progress and expected to be completed by Q4 of 2020-21.

## **WORLD'S LARGEST PLANE**

### **GS 3: Science & Technology | Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology**

#### **Why in News?**

- The world's largest aircraft took off over the Mojave Desert in California, the first flight for the carbon-composite plane built by Strato launch Systems Corp.

## Engineers call it 'the Roc'

Nicknamed after a giant mythical bird, the six-engine plane has a larger wingspan than any previous aircraft. The Stratolaunch is designed to carry a rocket to 35,000 feet for launch into space.



### Highlights:

- The white airplane called Roc, which has a wingspan the length of an American football field and is powered by six engines on a twin fuselage.
- The plane can be used to launch satellites.
- It has a wingspan the length of an American football field and is powered by six engines on a twin fuselage.
- It is carbon-composite plane.

## SATURN'S MOON TITAN HAS 100-M DEEP METHANE LAKES

GS 3: Science & Technology - Awareness In The Fields Of It, Space, Computers, Robotics, Nano-Technology, Bio-Technology

Prelims level: Cassini-Huygens Mission

### Why in News?

- Saturn's largest moon Titan has small liquid lakes that run more than 100 metres deep, perched atop hills and filled with methane, scientists have found using data from NASA's Cassini spacecraft.

### Methane Rains on Saturn:

- Scientists have known that Titan's hydrologic cycle works similarly to Earth's – with one major difference. Instead of water evaporating from seas, forming clouds and rain, Titan does it all with methane and ethane.

- We tend to think of these hydrocarbons as a gas on Earth, unless they're pressurized in a tank.
- However, Titan is so cold that they behave as liquids, like gasoline at room temperature on our planet.

### **Cassini Mission:**

- Launched in 1997, the Cassini mission is a cooperation between NASA, the European Space Agency and the Italian Space Agency.
- It has sent back thousands of stunning images and made numerous discoveries about the ringed planet and its moons.
- Cassini-Huygens is an unmanned spacecraft sent to the planet Saturn.
- Cassini is the fourth space probe to visit Saturn and the first to enter orbit. Its design includes a Saturn orbiter and a lander for the moon Titan.
- The lander, called Huygens, landed on Titan in 2005.

## **NASA SCIENTISTS DETECT FIRST MOLECULE OF UNIVERSE**

### **GS 3: Science & Technology - Awareness In The Fields Of It, Space, Computers, Robotics, Nano-Technology, Bio-Technology**

#### **Prelims level: First Molecule of Universe**

#### **Why in News?**

- The scientists of NASA have detected the first molecule which is Helium Hydride that was formed from stray atoms in the universe.

#### **Highlights:**

- NASA Scientists Detect First Molecule of Universe - Helium Hydride is a combination of helium and hydrogen.
- The research was published in the journal 'Nature'.
- The researchers used the National Aeronautics and Space Administrations SOFIA, the world's largest airborne observatory, to detect helium hydride in NGC 7027, a planetary Nebula about 3,000 light-years away from Earth.

#### **What is SOFIA?**

- Stratospheric Observatory for Infrared Astronomy (SOFIA) is a Boeing 747SP jetliner modified to carry a 106-inch diameter telescope.

## Significance of this discovery:

- Scientists for long had held that around 100,000 years after the big bang, helium and hydrogen combined to make a molecule called helium hydride for the first time.
- But scientists could not find HeH<sup>+</sup> in space and it was unproven.
- The discovery brought a long search to a happy ending and eliminates doubts about our understanding of the underlying chemistry of the early universe.

## CSIR UNDERTAKES A GENOME SEQUENCING PROJECT

### GS 3: Science & Technology - Awareness in The Fields Of It, Space, Computers, Robotics, Nano-Technology, Bio-Technology

#### Prelims level: Genome Sequencing

#### Why in News?

- The Council of Scientific and Industrial Research (CSIR) has undertaken an indigenous genetic mapping effort to educate a generation of students on the "usefulness" of Genomics.
- CSIR Undertakes a Genome Sequencing Project

#### Highlights:

- Under the Project, nearly 1,000 rural youth from the length and breadth of India will have their genomes sequenced by the CSIR.
- The project is an adjunct to a much larger government-led programme which is still in the works to sequence at least 10,000 Indian genomes.
- Those recruited as part of genome-sample collections are representative of the country's population diversity and the bulk of them will be college students, both men and women, and pursuing degrees in the life sciences or biology.
- Genomes will be sequenced based on a blood sample.
- Every participant would be given a report and would be inform them whether they carry gene variants that make them less responsive to certain classes of medicines.

#### Genome Sequencing:

- Genome refers to an organism's complete set of DNAs, including all of its genes.
- Each genome contains all of the information required to build and maintain that organism.
- Genome sequencing refers to figuring out the order of the DNA nucleotides, or bases, in a genome.

## PROJECT 15B

### GS 3: Science & Technology - Awareness In The Fields Of It, Space, Computers, Robotics, Nano-Technology, Bio-Technology

#### Prelims level: Project 15B

#### Why in News?

- State-owned Mazagon Dock Shipbuilders Limited (MDL) has launched India's third Project 15B Visakhapatnam-class guided-missile destroyer, the future INS Imphal, in Mumbai

#### Project 15 B:

- Project 15B ships feature cutting edge advanced technology and are comparable to the best ships of similar class anywhere in the world.
- These ships have been designed indigenously by the Indian Navy's Directorate of Naval Design. Each ship spans 163 metres in length and 17.4 metres at beam and displaces 7,300 tonnes. These ships will be propelled by four gas turbines to achieve speed in excess of 30 knots. The P15B destroyers incorporate new design concepts for improved survivability, sea keeping, stealth and manoeuvrability. Enhanced stealth features have been achieved through shaping of hull and use of radar transparent deck fittings which make these ships difficult to detect. P15B ships will be equipped to carry and operate two multiple role helicopters. These ships are packed with an array of state-of-the-art weapons and sensors, including multi-functional surveillance radars and vertically launched missile system for long distance engagement of shore, sea-based and air targets.
- With significant indigenous content, these ships are a true hallmark of self-reliance attained by our country in warship design and shipbuilding, and a shining example of the 'Make in India' philosophy.

#### Visakhapatnam-Class Surface Combatants:

- The INS Imphal is part of a planned fleet of four Visakhapatnam-class surface combatants.
- The first-of-class Visakhapatnam was launched in April 2015 and is expected to enter service with the Indian Navy in 2021.
- The second ship of the type, Mormugao, was launched in September 2016 and is slated to join the fleet in 2022.
- The third and fourth Visakhapatnam-class guided missile destroyers are expected to enter service in 2023 and 2024 respectively.

## **BACTERIOPHAGES IN GANGA WATER**

**GS 3: Science & Technology - Awareness In The Fields Of It, Space, Computers, Robotics, Nano-Technology, Bio-Technology**

**Prelims level: Bacteriophages**

### **Why in News?**

- A study commissioned by the Union Water Resources Ministry to probe the “unique properties” of the Ganga found that the river water contains a significantly higher proportion of organisms with antibacterial properties.
- Other Indian rivers also contain these organisms but the Ganga – particularly in its upper Himalayan stretches – has more of them.

### **Assessing Ganges Water:**

- The Nagpur based NEERI team was tasked with assessing the water quality for “radiological, microbiological and biological” parameters in the Bhagirathi and the Ganga at 20 sampling stations. As part of the assessment, five pathogenic species of bacteria (Escherichia, Enterobacter, Salmonella, Shigella, Vibrio) were selected and isolated from the Ganga, Yamuna and the Narmada.
- Their numbers was compared with the bacteriophages present in the river water.

### **Uniqueness of Ganga:**

- That the Ganga may contain unique microbial life, which makes it relatively more resilient to putrefaction, was suggested by British colonial scientists about 200 years ago.
- Because bacteriophages are a kind of virus that kill bacteria, they are frequently found in proximity to each other. In the river Ganga, the bacteriophages were detected to be approximately 3 times more in proportion than bacterial isolates.
- Though it isn't evident that there are bacteriophage species unique to the Ganga, the study suggests there are many more of them in the Ganga than in other rivers.
- Samples drawn from the Ganga contained almost 1,100 kinds of bacteriophage, and proportionally there were less than 200 species detected in the samples obtained from the Yamuna and the Narmada.
- However, these antibacterial properties varied widely along the length of the river.

### **Uses of Bacteriophages:**

- Phage therapy or viral phage therapy is the therapeutic use of bacteriophages to treat pathogenic bacterial infections.

- Phage therapy has many potential applications in human medicine as well as dentistry, veterinary science, and agriculture.
- Bacteriophages are much more specific than antibiotics. They are typically harmless not only to the host organism, but also to other beneficial bacteria.

## **MOSQUIRIX: WORLD'S FIRST MALARIA VACCINE**

### **GS 3 : Science & Technology - Awareness In The Fields Of It, Space, Computers, Robotics, Nano-Technology, Bio-Technology**

#### **Why in News?**

- African Nation, Malawi will be undertaking large scale pilot tests for the world's most advanced experimental malaria vaccine in a bid to prevent the disease.

#### **Highlights:**

- The vaccine has been recommended by WHO for pilot introduction in selected areas of 3 African countries- Ghana, Kenya and Malawi.
- RTS,S, known by its trade name Mosquirix, uses antibodies to target proteins presented by sporozoites (such as the circumsporozoite protein of *falciparum*).
- To enhance the immune system and help prevent the parasite from infecting the liver.
- Mosquirix is also engineered using a hepatitis B viral protein and a chemical adjuvant to further boost the immune response for enhanced effectiveness.

#### **Malaria:**

- It is caused by the infectious Plasmodium.
- It is spreaded by female Anopheles Mosquitoes deposit parasite sporozoites into the skin of a human host.
- Malaria is a leading cause of human morbidity and mortality.

## **BAN OF MELAMINE**

### **GS 3: Science & Technology - Awareness In The Fields Of It, Space, Computers, Robotics, Nano-Technology, Bio-Technology**

#### **Prelims level: Melamine**

#### **Why in News?**

- The government has extended the ban on import of milk and its products, including chocolates, from China till laboratories at ports for testing presence of toxic chemical melamine are upgraded.

## Highlights:

- India is the world's largest producer and consumer of milk. It produces around 150 million tonne milk annually.
- Uttar Pradesh is the leading state in milk production followed by Rajasthan and Gujarat.
- India imports milk products from China, it has imposed the ban as a preventive measure.

## Melamine:

- Melamine is an organic base chemical most commonly found in the form of white crystals rich in nitrogen.
- Melamine alone causes bladder stones in animal tests.
- When combined with cyanuric acid, which may also be present in melamine powder, melamine can form crystals that can give rise to kidney stones.

## ILLEGAL CULTIVATION OF BT BRINJAL

### GS 3: Science & Technology

#### Prelims level: Bt Brinjal, GMO

## Why in News?

- The activists representing the Coalition for a GM-Free India (CGFI) have alleged that Bt brinjal is being cultivated illegally in Haryana.

## Highlights:

- *Bacillus Thuringiensis* Brinjal, popularly known as Bt brinjal, has been at the centre of controversy in India.
- Bt brinjal, a genetically modified strain created by India's seeds company Mahyco in collaboration with American multinational Monsanto, claims to improve yields and help the agriculture sector.
- The Genetic Engineering Appraisal Committee (GEAC), has sought information about Bt brinjal from Bangladesh, where farmers have been growing the crop since 2013.
- According to International Service for the Acquisition of Agri-biotech Applications (ISAAA), which works to promote bio-technology, Bt brinjal incorporates the cry1Ac gene expressing insecticidal protein which creates resistance against fruit and shoot borer, a pest.

## Side effects of Bt Brinjal:

- Brinjal is prone to attack from insect pests and diseases, the most serious and destructive of which is the fruit and shoot borer (FSB) *Leucinodes orbonalis*.



- It is said be fatal for lungs and kidneys.
- Food safety and possible effects on organisms other than the pest insect (non-target organisms).

### **Genetically Modified Organisms:**

- Genetically Modified Organisms (GMOs) can be defined as organisms (i.e. plants, animals or microorganisms) in which the genetic material (DNA) has been altered in a way that does not occur naturally by mating and/or natural recombination.
- The technology is called “recombinant DNA technology” or “genetic engineering”.
- It allows selected individual genes to be transferred from one organism into another and also between non-related species.
- GM crops are aimed at providing increased level of crop protection by introducing resistance against plant diseases caused by insects, viruses and from herbicides.
- The resistance against insects in GM crops is achieved by incorporating into the food plant the gene for toxin production, which is currently used as a conventional insecticide in agriculture and is considered safe for human consumption.
- Virus resistance is achieved through the introduction of a gene from certain viruses which cause disease in plants. Virus resistance makes plants less susceptible to diseases caused by such viruses, resulting in higher crop yields.
- Herbicide tolerance is achieved through the introduction of a gene from a bacterium conveying resistance to some herbicides. In situations where weed pressure is high, the use of such crops has resulted in a reduction in the quantity of the herbicides used.

# INDIAN SOCIETY

## WORLD HERITAGE DAY 2019

### GS 1: Arts & Culture

#### World Heritage Day:

- The International Council on Monuments and Sites (ICOMOS) in 1982 had decided to celebrate April 18 as the International Day for Monuments and Sites or World Heritage Day.
- Approved by UNESCO in 1983 during its 22nd General Conference, the day is dedicated to recognising sites of historical importance, raising awareness regarding them, and stressing on the need to restore and preserve them.
- The day promotes cultural importance, while also highlighting the many impediments in doing so.
- Every year, a theme is proposed for the day which guides the celebrations and the many activities that ICOMOS National and International Scientific Committees and by other bodies organise.
- The theme for this year's celebrations is 'Rural Landscapes', which is related to the theme of the 2019 ICOMOS Scientific Symposium on Rural heritage that will take place in Marrakesh, Morocco in October.

#### Rural Landscapes:

- ICOMOS defines rural landscape as, "Principles concerning rural landscapes as heritage", adopted by the ICOMOS General Assembly in 2017.
- Rural landscapes are defined as "terrestrial and aquatic areas co-produced by human-nature interaction used for the production of food and other renewable natural resources, via agriculture, animal husbandry and pastoralism, fishing and aquaculture, forestry, wild food gathering, hunting, and extraction of other resources, such as salt. Rural landscapes are multifunctional resources.
- At the same time, all rural areas have cultural meanings attributed to them by people and communities: all rural areas are landscapes.
- Rural landscape has been a site of both tangible and intangible heritage and has also helped in maintaining a balance between the environment and human activities.

# NATIONAL PANCHAYATI RAJ DAY

## GS 2: Governance

### Why in News?

- The National Panchayati Raj Day is celebrated every year in India on 24th April.

### Highlights:

- The Constitution of India recognizes Panchayats as 'Institutions of self-government'.
- This day marks the passing of Constitution (73rd Amendment) Act, 1992 that came into force with effect from 24 April 1993.
- The Amendment Act permits states to take steps to organize village panchayats and provide them with necessary powers and authority necessary to facilitate them to function as units of self-government.

### National Panchayati Raj Day:

- The first National Panchayati Raj Day was celebrated in 2010.
- The enactment of the 73rd Amendment Act had led a defining moment in the history of India which helped in the decentralization of political power to the grassroots level.
- In turn, it had led to the institutionalization of Panchayati Raj (PR) through the village, Intermediate and District level Panchayats.

### Constitution (73rd Amendment) Act, 1992:

- The Constitution (73rd Amendment) Act, 1992 came into force with effect from 24th April, 1993.
- It has vested constitutional status on Panchayati Raj institutions.
- It marks a defining moment in the history of decentralization of political power to the grassroots level.
- The 73rd Amendment 1992 added a new Part IX to the constitution titled The Panchayats covering provisions from Article 243 to 243(O).
- A new Eleventh Schedule covering 29 subjects within the functions of the Panchayats.
- It implemented article 40 of DPSP which says that State shall take steps to organize village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.

## **66<sup>th</sup> NATIONAL FILM AWARDS TO BE DECLARED AFTER GENERAL ELECTIONS, 2019**

### **GS 1: Art and Culture**

#### **Why in News?**

- Since the Model Code of Conduct (MCC) is in force, which facilitates level playing field to all political parties and the candidates and inter alia seeks to ensure that the power of media is not used in such a manner which affects the general conduct and level playing field during the election process.
- It has been decided to declare the awards after the election process is over and the MCC concludes.

#### **National Film Awards:**

- The National Film Awards is the most prominent film award ceremonies in India. Established in 1954, it has been administered, along with the International Film Festival of India and the Indian Panorama, by the Indian government's Directorate of Film Festivals since 1973.
- Every year, a national panel appointed by the government selects the winning entry, and the award ceremony is held in New Delhi, where the President of India presents the awards.
- This is followed by the inauguration of the National Film Festival, where the award-winning films are screened for the public.
- Declared for films produced in the previous year across the country, they hold the distinction of awarding merit to the best of Indian cinema overall, as well as presenting awards for the best films in each region and language of the country.

## **GEOGRAPHY & ENVIRONMENT**

### **ASIATIC WILD DOGS (DHOLE)**

### **GS 3: Environment | Conservation, environmental pollution and degradation, environmental impact assessment**

#### **Prelims Level: Dhole and its habitat**

#### **Why in News?**

- A recent study has discovered a reduction in Dhole occupancy in Karnataka's Western Ghats, from 62 percent in 2007 to 54 percent in 2015.

## Asiatic Wild Dogs (Dhole) & threats:

- The dhole is on the IUCN Red List of Endangered Species and is protected under Schedule II of the Wildlife Protection Act, 1972 in India.
- Globally, dholes have disappeared from approximately 82 percent of their former range.
- The Western Ghats perhaps supports the largest dhole population in the world and is therefore a critical conservation landscape for the species.
- Massive infrastructural initiatives in the area, human intrusion in protected zones, change in land-use pattern, forest fragmentation and loss of forest cover are some of the reasons for the decline in dhole population.
- The presence of semi-feral, free-ranging domestic dogs in unprotected forest areas might be another reason for the decline in dhole occupancy.
- Free-ranging dogs affect dholes as they compete with dholes for similar resources like prey animals.
- Moreover, these dogs often carry lethal and non-lethal disease pathogens that could result in the spread of diseases in the dhole population.

## BAN ON SINGLE-USE PLASTIC PRODUCTS

### GS 3: Environment | Conservation, environmental pollution and degradation, environmental impact assessment

#### Prelims Level: Plastic Products, Usage and its effects on environment

#### Why in News?

- The European Parliament has voted for an EU-wide ban on single-use plastic products such as the straws, cutlery and cotton buds that are clogging the world's oceans.

#### Highlights:

- The law on single-use plastic ban sets a target to gather 90 per cent of plastic for recycling by 2029 and mandates the production of plastic bottles with 25 per cent recycled material by 2025 and 30 per cent by 2030.
- The law also insists on polluters pay principle by insisting polluters to pay the costs of a clean-up.
- The measures are strengthened, particularly for cigarette manufacturers, who will have to support the recycling of discarded filters.

- The "polluter pays" principle will be extended to manufacturers of fishing nets so that companies, not fishing crews pay the cost of nets lost at sea.
- The products prohibited under the law represent 70 per cent of the waste that pours into the world's oceans, posing a threat to wildlife and fisheries.

### Single-use Plastics:

- Single-use plastics, or disposable plastics, are used only once before they are thrown away or recycled.
- They are not usually biodegradable and goes into a landfill where it is buried or it gets into the water and finds its way into the ocean.
- They degrade into tiny particles after many years.
- In this process of degradation, they release toxic chemicals (additives that were used to shape and harden the plastic) which make their way into our food and water supply.

## INDIA'S FIRST CARBON-POSITIVE SETTLEMENT

### GS 3: Environment | Conservation, environmental pollution and degradation, environmental impact assessment

#### Why in News?

- Phayeng, a small village in Imphal West district of, Manipur has developed itself as India's first carbon-positive settlement.

#### Highlights:

- Phayeng is a scheduled caste village of the Chakpa community in Imphal West district and its conservation efforts are mainly linked to the belief that the forest is a sacred grove.
- The transformation of the village from the dry and denuded village in the 1970s and 80s was funded under the National Adaptation Fund for Climate Change (NAFCC).
- A village is given the carbon-positive tag if it sequesters more carbon than it emits, slowing the accumulation of greenhouse gases and mitigating the effects of climate change

#### Measures taken:

- The hunting is completely banned in the village except once a year when a deer is usually killed as sacrifice to the "forest gods".
- Restriction on outsiders' entry into the forest without permission
- Forest fires are carefully monitored
- Only dry twigs are extracted for firewood

- The entire 200 acres is patrolled by at least six people every day.

## NAFCC:

- The National Adaptation Fund for Climate Change (NAFCC) is a Central Sector Scheme which was set up in the year 2015-16.
- The aim of NAFCC is to support concrete adaptation activities which mitigate the adverse effects of climate change.
- The activities under this scheme are implemented in a project mode. The projects related to adaptation in sectors such as agriculture, animal husbandry, water, forestry, tourism, etc. are eligible for funding under NAFCC.
- National Bank for Agriculture and Rural Development (NABARD) is the National Implementing Entity (NIE).

## MALHAM CAVES

### GS 1: Geography | Geographical features & their location

#### Prelims level: Malham Cave

#### Why in News?

- Israel unveils world's longest salt cave.

#### Malham Caves:

- Malham is one of 150 caves in Mount Sodom, at the southern part of the Dead Sea, that are made of pure salt.
- Mount Sodom sits near the Dead Sea, a shrinking salt lake (and lowest point on Earth) that extends into Jordan, Israel and the occupied West Bank.
- A large part of the cave's interior is covered by a fine dust that blows in from the desert.
- Massive slabs of salt, some amber-colored from dust and minerals, stick out in dramatic formations. A thin slab appearing to have been sliced out is nicknamed "The Guillotine," while twin slabs that look like a pair of tablets in a different hall have earned the title of "The Ten Commandments."
- Israeli researchers say they have discovered the world's longest salt cave near the desert site where, according to the Bible, Lot's wife was turned into a pillar of salt.
- Radiocarbon dating suggests it's about 7,000 years old, its many passages carved by the very occasional rain storms that pass through the region.
- Even now, Malham continues to grow when water flows in and dissolves more of the salt.

## EARTH HOUR 2019

**GS 3: Environment | Conservation, environmental pollution and degradation, environmental impact assessment**

**Prelims Level: Earth Hour 2019**

### Why in News?

- The Earth Hour 2019 was observed on March 30 from 8:30 pm to 9:30 pm local time.
- Theme: #Connect2Earth.

### Earth Hour:

- World Wide Fund for Nature's (WWF) Earth Hour is an annual global celebration in which people switch off their lights for one hour to show they care about the future of our planet. It began in Sydney, Australia in 2007, the number of countries taking part in Earth Hour has grown to over 180 countries and territories.
- It aims to put the spotlight on the issues facing the planet, and to inspire millions across the world to live more sustainably.
- The Earth Hour India carried hashtag #Bee4ThePlanet.

### World Wildlife Fund:

- The World Wide Fund for Nature (WWF) is an international non-governmental organization founded in 1961, working in the field of wilderness preservation, and the reduction of humanity's footprint on the environment.
- It was formerly named the World Wildlife Fund, which remains its official name in Canada and the United States.
- Headquartered in Gland, Switzerland.
- The group's mission is "to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature".

## THE STATE OF GLOBAL AIR 2019 REPORT

**GS 3: Environment | Conservation, environmental pollution and degradation, environmental impact assessment**

### Why in News?

- The State of Global Air 2019 was released by US-based organisation Health Effects Institute (HEI). As per the report over 1.2 million people died in India due to air pollution in 2017.



## Highlights:

- The overall long-term exposure to outdoor and indoor air pollution contributed to nearly 5 million deaths from stroke, diabetes, heart attack, lung cancer, and chronic lung disease in 2017. Out of these, 3 million deaths are directly attributed to PM2.5, half of which is from India and China together. The analysis found that China and India together were responsible for over half of the total global attributable deaths, with each country facing over 1.2 million deaths from all air pollution in 2017.
- Air pollution is the third highest cause of death among all health risks in India, ranking just above smoking.
- As per the report, the life of a South Asian child born today will be shortened by two years and six months growing up in current high levels of air pollution, while the global life expectancy loss is 20 months.

## GLOBAL COOLING COALITION

### GS 3: Environment | Conservation, Environmental Pollution & Degradation

#### Prelims level: Global Cooling Coalition

#### Why in News?

- The first-ever global coalition on clean and efficient cooling was launched at the First Global Conference on Synergies between the 2030 Agenda and Paris Agreement in Copenhagen, Denmark.

#### Global Cool Coalition:

- The Global Cool Coalition is a unified front that links action across the Kigali Amendment, Paris Agreement and Sustainable Development Goals.
- It is expected to inspire ambition, identify solutions and mobilise action to accelerate progress towards clean and efficient cooling. Besides the UN, it is supported by the Climate and Clean Air Coalition, the Kigali Cooling Efficiency Program and Sustainable Energy for All (SEforALL). It includes government officials from Chile, Rwanda, Denmark as well as leaders from civil society, research and academia.

#### Significance:

- Throughout the world, 2018 was the fourth hottest year, preceded by 2017, 2015 and 2016.
- With increasing incomes and urbanisation, number of air conditioning units across the globe is set to increase from 1.2 billion to 4.5 billion by 2050, and India alone may account for one billion units.

- In the next 20 years, India's cooling requirement will increase by eight times, with air conditioners alone consuming more than half of the total energy required for cooling in the country by 2037-38.
- India has already developed a national cooling action plan that was launched by the Union environment ministry on March 8, 2019.

## **CORAL BLEACHING**

### **GS 3: Environment | Conservation, Environmental Pollution & Degradation**

#### **Prelims Level: Coral Bleaching**

#### **Why in News?**

- The world's southernmost coral reef has been hit by bleaching this summer, Australian scientists said, as they warned rising sea temperatures from climate change were affecting even the most isolated ecosystems.
- The corals off Lord Howe Island – some 600 km offshore from Sydney – were affected by elevated temperatures this summer, despite escaping severe bleaching that damaged the Great Barrier Reef in 2016 and 2017.

#### **Coral bleaching:**

- The stunning colours in corals come from a marine algae called zooxanthellae, which live inside their tissues.
- This algae provides the corals with an easy food supply thanks to photosynthesis, which gives the corals energy, allowing them to grow and reproduce.
- When corals get stressed, from things such as heat or pollution, they react by expelling this algae, leaving a ghostly, transparent skeleton behind.
- This is known as 'coral bleaching'. Some corals can feed themselves, but without the zooxanthellae most corals starve.

#### **Can coral recover from bleaching:**

- In some instances corals can recover from bleaching. If conditions return to normal, and stay that way corals can regain their algae, return to their bright colours and survive. However prolonged warmer temperatures and other stressors, like poor water quality, can leave the living coral in a weakened state.
- It can struggle to regrow, reproduce and resist disease – so is very vulnerable to coral diseases and mortality.

- It can take decades for coral reefs to fully recover from a bleaching event, so it is vital that these events do not occur frequently.
- If we continue burning fossil fuels at our current rate then severe bleaching events are likely to hit reefs annually by the middle of the century. This would be devastating for coral reefs as they would have no chance to recover.

### Causes:

- Change in Ocean Temperature
- Runoff and Pollution
- Overexposure to sunlight
- Extreme low tides



## NET-ZERO ENERGY COMPLEX

### GS 3: Environment | Conservation, Environmental Pollution & Degradation

#### Why in News?

- To achieve sustainable living standards, the Ministry of New and Renewable Energy (MNRE) has conceptualised a “net-zero energy complex” for its new headquarters.

#### Net-zero energy complex concept:

- The building has been conceived as a flagship project to showcase the use of renewable energy, as well as a cutting-edge energy efficient building.

- The campus will utilize technologies such as solar energy, on-site waste management, rainwater harvesting among others to get “off the grid”, thereby reducing the pressure on municipal infrastructure.
- Reducing air conditioning, maintaining a higher ambient temperature, optimising artificial light by reducing individual cabins and blocking out an entire portion of the building to prevent heat gain, were some of the lifestyle changes that needed to be adopted.

## **BAMBOO RICE SHOWS UP IN ODISHA**

### **GS 3: Economy | Major Crops & Cropping Patterns**

#### **Prelims Level: Bamboo Rice**

#### **Why in News?**

- Odisha is among the states known for a wide variety of rice, the staple food of eastern and north-eastern India and beyond.

#### **Bamboo Rice**

- Bamboo rice is special rice that is grown out of a dying bamboo shoot.
- When the bamboo shoot breathes its last, it flowers into a rare variety of rice seeds, which are known as bamboo rice. It is said that the bamboo rice harvesting is a major source of income for the tribal communities living in the interiors of Wayanad Sanctuary in Kerala.
- The gates of Chandaka-Dampara Wildlife Sanctuary in Cuttack district Odisha have been recently opened for forest dwellers to come and collect the rice.

#### **Significance:**

- The bamboo rice which grows only twice or thrice in a century. And it is being harvested now. The last collected bamboo rice in Odisha was in 1979. Whenever bamboo blossoms, the rat population increases. To prevent rats from running the rice, local villagers and forest dwellers collect bamboo rice.
- Also, the rice then becomes a major source of income and food for villagers living near the forest.

#### **Nutritional content:**

- The variety looks like paddy rice and tastes more like wheat. It is believed to have low glycaemic index compared to other varieties and it is good for diabetics.
- It's rich in proteins and does not contain any fat.

## INDIA STARES AT PILE OF SOLAR E-WASTE

### GS 3: Environment | Conservation, Environmental Pollution & Degradation

#### Prelims level: Waste management Rules

#### Why in News?

- According to a recent study conducted by an energy consultancy firm Bridge To India (BTI) Ltd., India's PV (photovoltaic) waste volume is estimated to grow to 2,00,000 tonnes by 2030 and around 1.8 million tonnes by 2050.

#### Highlights:

- PV waste recycling is still at a nascent stage globally, both in terms of technical standards and physical infrastructure. The waste is usually sent to laminated glass and metal recyclers that recover 70-80% of the material by weight.
- PV module recycling is still not commercially viable as total estimated cost including transportation can vary between USD 400-600/ tonne, far exceeding value of the recovered material.

#### India's status:

- India is among the leading markets for solar cells in the world, buoyed by the government's commitment to install 100 GW of solar power by 2022.
- So far, India has installed solar cells for about 28 GW and this is largely from imported solar PV cells.
- India's e-waste rules have no laws mandating solar cell manufacturers to recycle or dispose waste from this sector.
- Issues in dealing with Solar e-waste:
- Lack of a policy framework is coupled with the fact that even basic recycling facilities for laminated glass and e-waste are unavailable.
- These modules are 80% glass and aluminium, and non-hazardous.
- Other materials used, including polymers, metals, metallic compounds and alloys, and are classified as potentially hazardous.

#### Suggestions:

- Mandating module manufacturers to use environmentally sustainable design and materials with end-of-life in mind (similar to the eco-design initiative of the EU).
- Specifying liability and responsibility of each stakeholder for waste management and treatment.

- Laying down standards for PV waste collection, treatment and disposal.
- Encouraging mutual recycling responsibility agreements between module suppliers, project developers and power purchasers.
- Undertaking regular surveys of recycling facilities to understand technology and capacity levels.
- Identifying investment and technical requirements for dedicated PV recycling facilities with focus on high-value recovery.

## **AGREEMENT TO SAVE COASTAL WETLANDS**

### **GS 3: Environment | Conservation, Environmental Pollution & Degradation**

#### **Why in News?**

- The Central Marine Fisheries Research Institute (CMFRI) and the Indian Space Research Organisation (ISRO) have joined hands to map, validate and protect smaller wetlands in coastal regions.

#### **Highlights:**

- A memorandum of understanding (MoU) was signed between the CMFRI and the Space Applications Centre of ISRO to develop a mobile app and a centralised web portal that will have a comprehensive database of wetlands that are smaller than 2.25 hectares in the country. The programme is aimed at restoring them through coastal livelihood programmes.
- The two institutes aim at identifying and demarcating wetlands, and restore them through suitable livelihood options such as coastal aquaculture.
- The app will be used for real-time monitoring of the wetlands and giving advisories to stakeholders and coastal people. The collaborative move is part of a national framework for fisheries and wetlands, developed recently by the National Innovations in Climate Resilient Agriculture (NICRA) project of CMFRI. The project aims to find ways and means to mitigate the impact of climate change in marine fisheries and coastal region.
- The research on adaptation and mitigation covers crops, livestock, fisheries, and natural resource management.

#### **CMFRI:**

- The Central Marine Fisheries Research Institute was established by Government of India in 1947 under the Ministry of Agriculture and Farmers Welfare and later it joined the Indian Council of Agricultural Research (ICAR) in 1967.

- ICAR is the largest network of agricultural research and education institutes in the world functioning under the Department of Agricultural Research and Education, Ministry of Agriculture & Farmers' Welfare.

## **YANGTZE GIANT SOFTSHELL TURTLE**

### **GS 3: Environment | Conservation, Environmental Pollution & Degradation**

#### **Prelims level: Yangtze Giant Softshell turtles**

#### **Why in News?**

- The last female of rare Yangtze Giant Softshell turtles died in China.

#### **Highlights:**

- The only known female member of one of the world's rarest turtle species has died at a zoo in southern China.
- The animal was one of four Yangtze giant softshell turtles known to be remaining in the world.
- The turtle was over 90 years old and had undergone a fifth attempt at artificial insemination shortly before she died.
- The species is often referred to as the most endangered turtle in the world.
- Loss of habitat and poaching are among the reasons for the decline of the species' population.

## **RESILIENT CITIES ASIA-PACIFIC (RCAP) CONGRESS**

### **GS 3: Environment | Climate Change**

#### **Prelims level: RCAP**

#### **Why in News?**

- The 4th Resilient Cities Asia-Pacific (RCAP) Congress 2019 was organized by the International Council for Local Environmental Initiatives (ICLEI).

#### **Resilient Cities Asia-Pacific:**

- RCAP is the annual global platform for urban resilience and climate change adaptation.
- It is convened by ICLEI – Local Governments for Sustainability and co-hosted by the World Mayors Council on Climate Change and the City of Bonn.
- It was launched in 2010 with the goal of forging partnerships and dialogues that matter.
- The success of the series 'Resilient Cities – The Annual Global Forum on Urban Resilience and Adaptation' that attracts hundreds of participants to Bonn, Germany, every year since

2010 is a clear indication of how pressing the issue of adaptation and resilience is perceived among local governments worldwide.

- The RCAP is a response to heightened demand from the Asia Pacific Region, which encouraged ICLEI to expand the congress series to include Resilient Cities Asia-Pacific, bringing the event and the focus to the Asia-Pacific region, catering to the situation, challenges and opportunities of local governments specifically in this region.
- It aims to provide an Asian platform for urban resilience and climate change adaptation where partnerships are forged and concrete dialogues are happening, with the ultimate goal of identifying solutions and creating lasting impacts for cities in the region.

## **NGT FORMS CENTRAL MONITORING COMMITTEE TO CHECK RIVER POLLUTION**

### **GS 3: Environment**

#### **Why in News?**

- The National Green Tribunal (NGT) has formed a Central Monitoring Committee to prepare and enforce a national plan to make over 350 river stretches across the country pollution free.

#### **Objectives:**

- The committee has been composed to monitor pollution of rivers, as it has caused serious threat to the safety of water and environment.
- Besides checking river pollution, the central monitoring committee will coordinate with the River Rejuvenation Committees of the states and oversee the execution of the action plans, taking into account the timelines, budgetary mechanism and other factors.

#### **Composition of committee:**

- The committee would comprise a representative of NITI Aayog, secretaries of Ministry of Water Resources, Ministry of Urban Development and Ministry of Environment, the director general of National Mission for Clean Ganga and the Chairman of the Central Pollution Control Board
- The Chairman of CPCB will be the nodal authority for coordination.
- The chief secretaries of the states will act as the nodal agency at the state level.
- Functions of committee:



- To undertake a national initiative by way of preparation and enforcement of a national plan to make river stretches pollution free
- It will also coordinate with the RRCs of the States and oversee the execution of the action plans, taking into account the timelines, budgetary mechanism and other factors.

## SCIENTIFIC MANAGEMENT OF MANGROVES IS NEED OF THE HOUR

### GS 3: Environment | Conservation, Environmental Pollution & Degradation

#### Prelims level: Mangroves

#### Why in News?

- Mangroves are salt-tolerant vegetation that grows in intertidal regions of rivers and estuaries.
- They are referred to as 'tidal forests' and belong to the category of 'tropical wetland rainforest ecosystem'.
- Mangroves are trees and shrub species that grow at the interface between land and sea in tropical and subtropical regions of the world.

#### Mangroves in India:

- Mangrove forests occupy around 2,00,000 square kilometres across the globe in tropical regions of 30 countries. India has a total mangrove cover of 4,482 sq km.
- A mangrove ecosystem is the interface between terrestrial forests and aquatic marine ecosystems.
- The ecosystem includes diversified habitats like mangrove-dominant forests, litter-laden forest floors, mudflats, coral reefs and contiguous water courses such as river estuaries, bays, inter-tidal waters, channels and backwaters.
- Sundarbans in the Gangetic delta with an area of 2.12 lakh hectares (ha) supports 26 plant species of mangrove with a maximum height of more than 10 metres.
- Pichavaram in Tamil Nadu with an area of 1,100 ha supports 12 plant species growing to a height of 5 metres.

#### Significance of Mangroves:

- The structural complexities of mangrove vegetation create unique environments which provide ecological niches for a wide variety of organisms.
- Mangroves serve as breeding, feeding and nursery grounds for most of the commercial fishes and crustaceans on which thousands of people depend for their livelihood.

- Mangroves give protection to the coastline and minimize disasters due to cyclones and tsunami.
- Recent studies have shown that mangroves store more carbon dioxide than most other forests. Mangroves are intermediate vegetation between land and sea that grow in oxygen deficient waterlogged soils which have Hydrogen Sulfide (H<sub>2</sub>S).
- They perform important ecological functions like nutrient cycling, hydrological regime, coastal protection, fish-fauna production, etc.
- Mangroves act as shock absorbers. They reduce high tides and waves and help prevent soil erosion.

### Threats:

- Mangroves are being destroyed and facing severe threats due to urbanisation, industrialisation, and discharge of domestic sewage, industrial effluents and pesticides.
- Saltpans and aquaculture also pose major threat to the mangroves.
- 40 per cent of mangrove forests in West Coast of India have been converted into farmlands and housing colonies over the last three decades.
- Some of the mangrove species like *Bruguiera cylindrica* and *Sonneratia acida* are at the verge of extinction. Due to shrimp farming, about 35,000 ha of mangroves have been lost in India.

### Conserving Mangroves:

- Suitable sites are to be identified for planting mangrove species. Mangrove nursery banks should be developed for propagation purposes.
- Environmental monitoring in the existing mangrove areas should be taken up systematically and periodically. Various threats to the mangrove resources and their root causes should be identified, and earnest measures should be taken to eliminate those causes. The participation of the local community should be made compulsory for conservation and management. Floristic survey of mangroves along the coast is to be taken up to prepare biodiversity atlas for mangroves.
- Potential areas are to be identified for implementing the management action plan for mangroves, especially in cyclone prone areas.
- Coastal industries and private owners need to be persuaded to actively participate in protecting and developing mangrove biodiversity. The forest department officials should be trained on taxonomy, biology and ecology of mangrove species.

## Way Forward:

- So far, none of the mangrove species has been included in the Red List of the International Union for Conservation of Nature (IUCN).
- A scientific study reported that 100 per cent of mangrove species, 92 per cent of mangrove associates, 60.8 per cent of algae, 23.8 per cent of invertebrates and 21.1 per cent of fish are under threat. Periodical monitoring of the mangrove forest is very much necessary to assess the status. The impact of environmental and human interference on marine flora and fauna needs to be assessed. The traditional rights of coastal communities to use the natural resources in their surrounding natural habitats for their livelihood should also be recognised on priority basis.

## UNESCO GLOBAL GEOPARKS

### GS 3: Environment

#### Prelims level: UNESCO Global Geoparks

### Why in News?

- UNESCO Global Geoparks are single, unified geographical areas where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development.

### Highlights:

- At present, there are 147 UNESCO Global Geoparks in 41 countries
- UNESCO Global Geoparks is given this designation for a period of four years after which the functioning and quality of each UNESCO Global Geoparks are thoroughly re-examined during a revalidation process.
- In 2018 Lonar Lake in Maharashtra and St. Mary's Island and Malpe beach in coastal Karnataka are listed for UNESCO Global Geopark Network status.

### Significance:

- To enhance awareness and understanding of key issues facing society in the context of the dynamic planet we all live on.
- Mitigating the effects of climate change
- Reducing the impact of natural disasters.
- By raising awareness of the importance of the area's geological heritage in history and society today, UNESCO Global Geoparks give local people a sense of pride in their region and strengthen their identification with the area.

- The creation of innovative local enterprises, new jobs and high-quality training courses is stimulated as new sources of revenue are generated through sustainable geotourism, while the geological resources of the area are protected.

## **A NEW LANDSCAPE ON THE HORIZON**

### **GS 1: Geographical Features & Their Location**

#### **Mains level: Intra-continental drifting**

#### **Why in News?**

- The recent scientific evidence has given a glimpse of the Earth's changing contours – the African continent is splitting into two.

#### **Africa is splitting:**

- A place near Nairobi, Kenya had a large crack on the ground that appeared during an intense spell of rain and flooding.
- The crack is 57 km long which is a locus of a future ocean formation.
- Such an event happened 138 million years ago when the South American and African continents separated to give rise to the current South Atlantic Ocean.
- All such signs on Earth's surface point to a totally new landscape, which resembled how it looked like when it was formed 4.5 billion years ago one huge continent.
- The farthest scientists can predict is that 250 million years from now all continents will unite again in one supercontinent and then will break apart again along the future rift systems.

#### **Why such cracks?**

- At first, geologists thought the crack in Kenya was formed due to “erosion of soft soils infilling an old rift-related fault.
- They later revealed that the crack had existed for quite some time, but was filled with ash from Mount Longmont, a volcano nearby.
- The rain had washed away the ash to expose the crack. This triggered a debate whether the crack was a part of the East African Rift system.

#### **Rift in systems:**

- Rifts are the regions of extension of the crust and the lithosphere.
- Continental changes take place at the boundaries of tectonic plates which are divisions of the uppermost layer of the Earth and swim around on the fluid mantle layer below it.

- The extension may develop to a stage when two plates split apart, like in the example of the Red Sea and the Gulf of Aden. So continental rifts are potential places where new oceans are expected to form. These plates periodically crash into each other, giving rise to earthquakes and volcanic eruptions when the intensity is less over short periods of time.
- Over longer periods of time, they create all the geological and geographical features that we find on Earth like mountains, valleys and oceans.

### **Intra-continental drifting:**

- One of these processes is an intra-continental rift system which acts between tectonic plates and can give rise to rift valleys or even new oceans.
- The African Rift Valley, which is between Ethiopia and Kenya, is a classical example of this geodynamic process. There, volcanism, earth-quakes and fracturing of the Earth's surface result from the enormous forces that tear the eastern portion of the African continent apart.

### **East African rift system:**

- The East African rift system is more active in terms of volcanism and it is connected to the global ocean rift (ridge) system through the Afar-Red Sea – Gulf of Aden triple junction.
- The Red Sea and the Gulf of Aden are the rifts along which two continents break apart and new oceanic flow is formed. There are numerous rift systems around the world but the most active ones are the East African rift, Baikal rift, West Antarctic rift, Rio Grande rift, the Rhine Graben rift system in Europe and Shanxi rift system in China.
- When such geographical features become prominent enough they reshape the way the planet looks. The rifts undergo massive geological changes – shoulders of rifts grow and get eroded by rain and melting snow.
- At the same time, the axial parts of rifts subside and get filled with sediments, which gets eroded from the shoulders.

## **INTEGRATED FARMING NEEDED TO DOUBLE FARMER'S INCOME**

### **GS 3: Agriculture**

#### **Why in News?**

- The Vice President of India, Shri M. Venkaiah Naidu has stressed the need to promote integrated farming practices to improve the productivity of livestock and double farmers' income.

## Highlights:

- Quoting NSSO statistics, estimates, the Vice President said that rural India had an estimated 90.2 million agricultural households and facilitating sustainable income for all these households must be the primary endeavor for everyone.
- The Vice President said that a healthy and robust agricultural sector was an important prerequisite to ensure sustainable and inclusive growth in India.
- He called for measures to make farming a lucrative career opportunity, especially for the youth, by making agriculture economically viable and financially rewarding.
- Saying that Agriculture industry contributes 17% of India's total GDP, out of which,
- The 27% comes from Animal Husbandry and overall, the dairy, poultry and
- Aqua industries contribute 4.4% to the nation's GDP,
- The Vice President said that these numbers signify the crucial role played by these sectors in our economy. The Vice President urged the government, agriculture scientists and Krishi Vigyana Kendras to encourage farmers to diversify into allied services for financial stability.

## Integrated Farming System:

- The Integrated Farming System (IFS) approach has multiple objectives of sustainability, food security, farmer security and poverty reduction.
- It involves use of outputs of one enterprise component as inputs for other related enterprises wherever feasible, for example, cattle dung mixed with crop residues and farm waste can be converted in to nutrient-rich vermi-compost.
- The salient features of IFS include – Innovation in farming for maximising production through optimal use of local resources, Effective recycling of farm waste for productive purposes, Community-led local systems for water conservation,
- Organic farming, and Developing a judicious mix of income-generating activities such as dairy, poultry, fishery, goat-rearing, vermicomposting and others.

## Krishi Vigyan Kendra:

- A Krishi Vigyan Kendra (KVK) is an agricultural extension center in India. The name means "farm science center".
- Usually associated with a local agricultural university, these centers serve as the ultimate link between the Indian Council of Agricultural Research and farmers, and aim to apply agricultural research in a practical, localized setting.

- All KVKs fall under the jurisdiction of one of the 11 Agricultural Technology Application Research Institutes (ATARIs) throughout India.

### Responsibilities of KVKs:

- **On-Farm Testing:** Each KVK operates a small farm to test new technologies, such as seed varieties or innovative farming methods, developed by ICAR institutes.
- **Front-line Demonstration:** Due to the KVK's farm and its proximity to nearby villages, it organizes programs to show the efficacy of new technologies on farmer fields.
- **Capacity Building:** In addition to demonstrating new technologies, the KVK also hosts capacity building exercises and workshops to discuss modern farming techniques with groups of farmers.
- **Multi-sector Support:** Offer support to various private and public initiatives through its local network and expertise. It is very common for government research institutes to leverage the network of KVKs when performing surveys with a wide range of farmers
- **Advisory Services:** Due to the growing use of ICT, KVKs have implemented technologies to provide farmers information, such as weather advisories or market pricing, through radio and mobile phones.

## BHARAT STAGE VI

### GS 3: Environment | Conservation, Environmental Pollution & Degradation

#### Prelims level: Bharat Stage VI

#### Why in News?

- Maruti Suzuki Ltd has launched its popular Baleno and Alto hatchbacks with engines compliant with the Bharat State 6 emission norms, a year before the new norms will be introduced.

#### Bharat Stage norms:

- The Bharat Stage are standards instituted by the government to regulate emission of air pollutants from motor vehicles.
- The norms were introduced in 2000.
- With appropriate fuel and technology, they limit the release of air pollutants such as nitrogen oxides, carbon monoxide, hydrocarbons, particulate matter (PM) and sulphur oxides from vehicles using internal combustion engines.
- As the stage goes up, the control on emissions become stricter.

- Bharat Stage VI norms are two stages ahead of the present Bharat Stage IV norms in regulating emissions. These norms are based on similar norms in Europe called Euro 4 and Euro 6.

### Differences between two stages:

- The extent of sulphur is the major difference between Bharat Stage IV and Bharat Stage VI norms.
- BS-IV fuels contain 50 parts per million (ppm) sulphur, the BS-VI grade fuel only has 10 ppm sulphur. BS VI can bring PM in diesel cars down by 80 per cent .
- The new norms will bring down nitrogen oxides from diesel cars by 70 per cent and in petrol cars by 25 per cent.
- BS VI also make on-board diagnostics (OBD) mandatory for all vehicles. OBD device informs the vehicle owner or the repair technician how efficient the systems in the vehicle are.

### Impact on automakers:

- Compliance with BS-VI norms will require higher investment in technology to upgrade vehicles in stock and making new vehicles. This will also mean fewer launches till the deadline.

### Impact on buyers:

- Those who buy Bharat Stage VI-compliant vehicles will have to pay more since such vehicles will cost automakers more and they will pass on the additional cost to the buyers. The Bharat Stage VI-compliant fuel too will be more expensive

## GLOBAL DEAL FOR NATURE (GDN)

### GS 3: Environment | Conservation, Environmental Pollution & Degradation

#### Prelims level: Global Deal for Nature (GDN)

#### Why in News?

- Saving the diversity and abundance of life on Earth may cost \$100 billion a year, say scientists who have proposed a policy to prevent another mass extinction event on the planet. There have been five mass extinctions in the history of the Earth.

#### Global Deal for Nature (GDN):

- Scientists have proposed new science policy to reverse the tide, called A Global Deal for Nature (GDN).



- It is a time-bound, science-based plan to save the diversity and abundance of life on Earth.
- The GDN campaign is being driven by One Earth, an initiative of the Leonardo DiCaprio Foundation that aims to gather support from international institutions, governments, and citizens of planet Earth to support ambitious conservation goals.
- The policy's mission is to save the diversity and abundance of life on Earth – for the price tag of \$100 billion a year.

### What would GDN do?

- Societal investment in the GDN plan would, for the first time, integrate and implement climate and nature deals on a global scale to avoid human upheaval and biodiversity loss.
- The study outlines the principles, milestones and targets needed to avoid the disastrous extinction threats of a two degrees Celsius global warming forecast.

### Why GDN?

- Scientists now estimate that society must urgently come to grips this coming decade to stop the very first human-made biodiversity catastrophe.

### Goals:

- To protect biodiversity by conserving at least 30% of the Earth's surface by 2030;
- Mitigate climate change by conserving the Earth's natural carbon storehouses; and
- Reduce major threats.

## INDIAN ECONOMY

### INDIA IMPOSES ANTI-DUMPING DUTY ON IMPORT OF SOLAR CELL COMPONENT

#### GS 3: Economy | Mobilization of resources

#### Why in News?

- India has levied anti-dumping duty worth up to USD 1,559 per tonne on imports of a certain type of sheet used in solar cell making from China, Malaysia, Saudi Arabia and Thailand for five years to safeguard domestic players against cheap shipments.
- The anti-dumping duty has been imposed after considering the recommendations of the commerce ministry's investigation arm Directorate General of Trade Remedies (DGTR).

#### Highlights:

- The duty, which is in the range of USD 537 to USD 1,559 per tonne, will be imposed on the imports of "Ethylene Vinyl Acetate sheet for solar module" from the select four nations.

- It shall be effective for a period of five years unless revoked, superseded or amended earlier. The Directorate General of Trade Remedies had initiated the probe in April 2018 following a complaint by a domestic company. In its probe, the directorate had concluded that imposition of the duty is required to offset dumping and injury caused by dumped imports from China, Malaysia, Saudi Arabia and Thailand. The product is a polymer-based component used in the manufacturing of solar PV (Photo Voltaic) modules. The imports of the sheets from the four nations increased to 6,367 tonnes during the period of investigation (October 2016 to September 2017) from 4,674 tonnes in 2016-17. The imports stood at USD 1,025 tonnes in 2015-16 and USD 594 tonnes in 2014-15.

### Why is anti-dumping duty imposed?

- Nations across the world carry out anti-dumping probes to determine whether their domestic industries have been hurt because of a surge in cheap imports.
- Following which, anti-dumping duties are imposed as a counter measure to safeguard their domestic market under the multilateral regime of WTO. Hence, the anti-dumping duty is aimed at ensuring fair trading practices and creating a level-playing field for domestic producers with regard to foreign producers and exporters.

### Background:

- The imports of components used in solar industry have increased as India launched an ambitious national solar policy named Jawaharlal Nehru National Solar Mission in January 2010. Under this, the country has a target of generating 20,000 megawatts (MW) of solar power by 2022. Several countries are interested in supplying solar equipment to tap into the growing sector in India.

### Transport and Marketing Assistance (TMA) Scheme

#### GS 3: Economy | Infrastructure: Energy, Ports, Roads, Airports, and Railways etc.

#### Prelims Level: Transport and Marketing Assistance (TMA) Scheme

### Why in News?

- The Ministry of Commerce and Industry has laid out a detailed procedure for claiming benefits under the Transport and Marketing Assistance (TMA) scheme.

### Highlights:

- It aims at boosting agricultural exports. The scheme for providing financial assistance for transport and marketing of agriculture products to boost exports of such commodities to certain countries in Europe and North America.

- The level of assistance would be different for different regions as notified from time to time for export of eligible products. The scheme covers freight and marketing assistance for export by air as well as by sea.

### Objectives:

- The scheme aims to provide assistance for the international component of freight and marketing of agricultural produce.
- To mitigate disadvantage of higher cost of transportation of export of specified agriculture products due to trans-shipment.
- To promote brand recognition for Indian agricultural products in the specified overseas markets.

### Coverage & Eligibility:

- All exporters, duly registered with relevant Export Promotion Council as per Foreign Trade Policy, of eligible agriculture products shall be covered under this scheme.
- The Scheme would be applicable for a period as specified from time to time. Presently the Scheme would be available for exports from 1.3.2019 to 31.03.2020.

### APEDA:

- The Agricultural and Processed Food Products Export Development Authority (APEDA) is a non-trading, statutory body established by the Government of India under the Agricultural and Processed Food Products Export Development Authority Act passed by the Parliament in December, 1985.
- APEDA has marked its presence in almost all agro potential states of India and has been providing services to agri-export community through its head office in New Delhi, five Regional offices and 13 Virtual offices.
- In 2017, APEDA launched a mobile app- “Farmer Connect” to allow farmers to apply online to facilitate their farm registration, tracking the status of application & approvals by State Government and Lab sampling by authorized Laboratories.

## NUGEN MOBILITY SUMMIT 2019

### GS 3: Economy | Infrastructure: Energy, Ports, Roads, Airports, and Railways etc

#### Why in News?

- The International Centre for Automotive Technology (ICAT) will organize a NuGen Mobility Summit, 2019, at Manesar, NCR, from 27th to 29th November 2019.

## Highlights:

- The Summit is being organized in association with SAENIS, SAE INDIA, SAE International, NATRiP, DIMTS, Department of Heavy Industry, Ministry of Road Transport and Highways, SIAM and ACMA.
- The objective of the Summit is to share new ideas, learnings, global experiences, innovations and future technology trends for faster adoption, assimilation and development of advanced automotive technologies for a smarter and greener future.
- This event will help in building a platform for bringing together all stakeholders in the automotive industry to understand global advancements in technologies.
- The event aims to bring together the automotive OEMs, professionals, researchers, academic experts, vehicle system suppliers, test equipment supplier, quality managers, product planners, component developers, SAE members and students from all over the world.
- Experts working with leading international scientific and research organizations and testing laboratories from various countries like USA, Europe, Japan and other Asian countries will also participate in the event and share their experiences and knowledge on the development of smart and green technologies and the challenges that the industry needs to overcome.
- Track demonstrations, drive-touch-feel activity and lab demonstrations on upcoming vehicle technologies like connected mobility, autonomous vehicles, electric mobility, alternate fuels, intelligent transportation system, hydrogen fuel cell, hydrogen IC engine, vehicle dynamics, advanced materials and lightweight, end of life vehicles and recycling are the uniqueness of this event.

## ICAT:

- ICAT stands for The International Centre for Automotive Technology.
- ICAT Manesar is a division of NATRIP Implementation Society (NATIS) under the Department of Heavy Industries, Government of India.
- It provides services for testing, validation, design and homologation of all categories of vehicles and has a mission to assist the automotive industry in adopting cutting edge technologies in vehicle evaluation and component development to ensure reliability, durability and compliance to the current and future regulations in new generation mobility solutions.

- ICAT Centre-II is under brisk renovation to create a world-class state-of-the-art facility for organizing such significant and sizeable events for the automotive fraternity. Several kinds of tracks such as coast down the track, oval track, abs track, hill tracks, and flood track will be available for demonstrations and events.

## **SEBI MULLS SRO FOR INVESTMENT ADVISERS**

### **GS 3: Economy | Mobilization of Resources**

#### **Prelims level: SRO and its mandate**

#### **Why in News?**

- The SEBI has proposed a self-regulatory organisation (SRO) for the growing number of investment advisers to address issues related to the quality of advice given to investors by such entities.

#### **Self-Regulatory Organisation:**

- An SRO is the first-level regulator that performs the crucial task of regulating intermediaries representing a particular segment of securities market on behalf of the regulator.
- An SRO would be seen as an extension of the regulatory authority of the SEBI and would perform the tasks delegated to it by the SEBI.
- The role of an SRO is developmental, regulatory, related to grievance redressal and dispute resolution as well as taking disciplinary actions.

#### **Significance:**

- SEBI is in receipt of a large number of complaints alleging charging of exorbitant fees, assurance of returns, misconduct etc. by investment advisers.
- Incidentally SEBI has said that there was a need for an SRO for mutual fund distributors – that currently register with Association of Mutual Funds in India (AMFI).
- It was aimed to bring in consistency in industry practices and also to take disciplinary action against alleged malpractices such as mis-selling of products and churning of portfolio.

#### **Expected functions:**

- SEBI has proposed the strengthening of the existing regulatory framework for SROs by introducing features such as a governing board with public interest directors and a clear policy for arbitration and dispute resolution.

- The regulator has proposed a governing board with at least 50% public interest directors along with 25% representation each of shareholder directors and elected representatives.
- Further, the governing board can appoint a managing director or chief executive officer to manage the daily affairs of the SRO.

## **GI TAG FOR KANDHAMAL AND ERODE TURMERIC**

### **GS 3: Intellectual Property Rights**

#### **Prelims level: Kandhamal and Erode Turmeric**

#### **Why in News?**

- Kandhamal Haldi', a variety of turmeric indigenous to southern Odisha, has earned the GI tag.
- Earlier this month, erode turmeric also got a GI tag from the Geographical Indication Registry.

#### **Kandhamal Haldi:**

- Kandhamal in Odisha's southern hinterland is famed for its turmeric, a spice that enjoys its pride of place in an array of cuisines.
- The agricultural product also stands out for its healing properties and arresting aroma.
- The GI tag was primarily developed with the purpose of recognising the unique identity connecting different products and places.
- For a product to get GI tag it has to have a unique quality, reputation or characteristic which is attributable to its geographic origin. 'Kandhamal Haldi' has been placed under Class-30 type
- The Kandhamal turmeric was accorded the tag on the state's Foundation Day.
- Odisha, on April 1 1936, was carved out as a separate state in the then British India on a linguistic identity.

#### **Erode turmeric:**

- Erode turmeric is a rhizome, both finger and bulb obtained from the Erode local cultivar.
- In its claim for uniqueness, the application said the mean length of the fingers of Erode turmeric was about 4.15cm and the mean circumference was about 3.03cm.
- The mean bulb length of the mother rhizome is about 4.54cm and the mean circumference is 6.54cm.
- Quality parameters of the turmeric included 2.5 to 4.5% of curcumin content, a golden yellow colour and resistance to pests after boiling.

## Geographical Indications in India:

- A Geographical Indication is used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- Such a name conveys an assurance of quality and distinctiveness which is essentially attributable to its origin in that defined geographical locality.
- This tag is valid for a period of 10 years following which it can be renewed.
- Recently the Union Minister of Commerce and Industry has launched the logo and tagline for the Geographical Indications (GI) of India. The first product to get a GI tag in India was the Darjeeling tea in 2004. There are a total of 325 products from India that carry this indication. Darjeeling Tea, Mahabaleshwar Strawberry, Blue Pottery of Jaipur, Banarasi Sarees and Tirupati Laddus are some of the GIs. The Geographical Indications of Goods (Registration and Protection) Act, 1999 (GI Act) is a sui generis Act for protection of GI in India.
- India, as a member of the World Trade Organization (WTO), enacted the Act to comply with the Agreement on Trade-Related Aspects of Intellectual Property Rights
- Geographical Indications protection is granted through the TRIPS Agreement. See also the Paris Convention, the Madrid Agreement, the Lisbon Agreement, the Geneva Act.

## ADVANCED PRICING AGREEMENT

### GS 3: Economy | Infrastructure: Energy, Ports, Roads, Airports, and Railways etc

#### Why in News?

- The Central Board of Direct Taxes (CBDT) has entered into 18 APAs in the month of March 2019, which includes 03 Bilateral APAs (BAPAs). With the signing of these APAs, the total number of APAs entered into by the CBDT in the year 2018-19 stands at 52, which includes 11 BAPAs. The total number of APAs entered into by the CBDT as of now stands at 271, which inter alia includes 31 BAPAs.

#### Why we need APA?

- The primary goal of such programmes is to provide certainty to taxpayers in respect of the transfer price of the crossborder transactions undertaken by such taxpayers with their group entities.
- Rapid growth in international trade through an increasing number of Multi National Enterprises (MNEs) has given rise to numerous tax disputes on the issue of transfer pricing.

## Advanced Pricing Agreement:

- An APA is a mechanism to resolve transfer pricing disputes in advance, i.e., before the cross-border related party transaction actually takes place.
- The transfer price of goods and services transacted between group entities is decided in advance by the tax authorities and the taxpayers, so as to prevent any dispute arising from such transfer pricing.
- The Advance Pricing Agreement (APA) programme in India was launched in 2012 vide the Finance Act, 2012 through the insertion of Sections 92CC and 92CD in the Income-tax Act, 1961.
- These statutory provisions, effective from 1st July, 2012, lent the legal backing to the CBDT to enter into Advance Pricing Agreements (APAs) with taxpayers for a maximum period of 5 years in respect of international transactions between Associated Enterprises (AEs) to determine the Arm's Length Price (ALP) or to specify the manner in which the ALP is to be determined. It was stipulated that the detailed scheme of the APA would be separately notified by the CBDT.
- The progress of the APA scheme strengthens the Government's resolve of fostering a non-adversarial tax regime.
- The Indian APA programme has been appreciated nationally and internationally for being able to address complex transfer pricing issues in a fair and transparent manner.

## WAYS AND MEANS ADVANCES

### GS 3: Economy | Mobilization Of Resources

#### Prelims level: WMA

#### Why in News?

- RBI may trigger fresh floatation of market loans when Government utilizes 75% of the WMA limit.
- The interest rate on WMA will be Repo Rate and overdraft will be 2% above the Repo Rate.
- The Reserve Bank of India gives temporary loan facilities to the centre and state governments as a banker to government. This temporary loan facility is called Ways and Means Advances (WMA).
- It is a mechanism to provide to States to help them tide over temporary mismatches in the cash flow of their receipts and payments.



- It was introduced on April 1, 1997, after putting an end to the four-decade old system of adhoc (temporary) Treasury Bills to finance the Central Government deficit.
- This facility can be availed by the government if it needs immediate cash from the RBI. The WMA is to be vacated after 90 days.
- Interest rate for WMA is currently charged at the repo rate. The limits for WMA are mutually decided by the RBI and the Government of India.

## **NATIONAL INVESTMENT AND INFRASTRUCTURE FUND (NIIF)**

### **GS 3: Economy | Investment Models**

#### **Prelims level: NIIF**

#### **Why in News?**

- Roadis, a private investor and operator of transport infrastructure worldwide and the National Investment and Infrastructure Fund (NIIF) have jointly set up a platform to invest in road projects in India.

#### **Platform for Road projects in India:**

- The platform would invest up to \$2 billion of equity targeting toll-operate-transfer models, acquisitions of existing road concessions and investment opportunities in the road sector.
- With 710 km of highways under ownership and management, Roadis is one of the largest European highway concession managers in India.
- Roadis is a wholly owned subsidiary of the Public Sector Pension Investment Board, one of Canada's largest pension funds.

#### **NIIF:**

- National Investment and Infrastructure Fund (NIIF) is a fund created by the Government of India for enhancing infrastructure financing in the country.
- This is different from the National Investment Fund.
- Objective: to maximize economic impact mainly through infrastructure development in commercially viable projects, both greenfield and brownfield, including stalled projects.
- NIIF was proposed to be set up as a Trust, to raise debt to invest in the equity of infrastructure finance companies such as Indian Rail Finance Corporation (IRFC) and National Housing Bank (NHB).
- NIIF is envisaged as a fund of funds with the ability to make direct investments as required. As a fund of fund it may invest in other SEBI registered funds.
- The functions of NIIF are as follows:

- Fund raising through suitable instruments including off-shore credit enhanced bonds, and attracting anchor investors to participate as partners in NIIF;
  - ✓ Servicing of the investors of NIIF.
  - ✓ Considering and approving candidate companies/institutions/ projects (including state entities) for investments and periodic monitoring of investments.
  - ✓ Investing in the corpus created by Asset Management Companies (AMCs) for investing in private equity.
  - ✓ Preparing a shelf of infrastructure projects and providing advisory service

## **ASIAN DEVELOPMENT OUTLOOK 2019**

### **GS 3: Economy**

#### **Prelims level: Outlook & particulars**

#### **Why in News?**

- Asian Development Bank has published Asian Development Outlook 2019.

#### **Key Findings:**

- ADB has cut India's growth forecast to 7.2% for 2019-20 because of a slower-than-expected pickup in investment demand.
- The growth rate in Financial Year 2020-21 is likely to be 7.3%.
- India will remain the fastest growing major economy, as China is projected to grow at 6.3% in 2019. India's strong growth is because of strong household spending and corporate fundamentals.
- Strong household spending- Income support to farmers, hikes in procurement prices for food grains, and tax relief to taxpayers earning less than Rs 5 lakh, declining fuel and food prices. Strong corporate fundamentals- An increase in utilization of production capacity by firms, falling levels of stressed assets held by banks and easing of credit restrictions on certain banks, is expected to help investment grow at a healthy rate.
- Imports are expected to rise mainly due to stronger domestic demand, while a growth slowdown in India's key export destinations would dent export growth.
- The current account deficit is expected to widen a bit to 2.4% of GDP in FY2019 and 2.5% of GDP in FY2020.
- The inflation is expected to average around 4% in the first half of FY2019, and therefore the Reserve Bank would have some room for lowering policy rates further increasing credit.

## ADB:

- The Asian Development Bank (ADB) is a regional development bank established on 19 December 1966. ADB is headquartered in Manila, Philippines.
- It aims to promote social and economic development in Asia.
- ADB now has 67 members, of which 48 are from within Asia and the Pacific and 19 outside. Japan holds the largest proportion of shares in ADB followed by the USA.

## SMALL FINANCE BANKS

### GS 3: Economy

#### Prelims Level: Small Finance Banks

#### Why in News?

- Data from the Reserve Bank of India (RBI) show that the small finance banks, in total, saw their deposits grow 31.6% in the third quarter (ended December) of this financial year, compared with the second quarter.

#### Small Finance Banks (SFBs):

- The small finance bank will primarily undertake basic banking activities of acceptance of deposits and lending to unserved and underserved sections including small business units, small and marginal farmers, micro and small industries and unorganised sector entities.

#### Functions of SFBs:

- ✓ Accept small deposits and disburse loans.
- ✓ Distribute mutual funds, insurance products and other simple third-party financial products. Lend 75% of their total adjusted net bank credit to priority sector.
- ✓ Maximum loan size would be 10% of capital funds to single borrower, 15% to a group.
- ✓ Minimum 50% of loans should be up to 25 lakhs.

#### How are they different from other commercial banks?

- ✓ They Cannot open branches with prior RBI approval for first five years.
- ✓ Cannot lend to big corporates and groups.
- ✓ Other financial activities of the promoter must not mingle with the bank.
- ✓ They cannot set up subsidiaries to undertake non-banking financial services activities.
- ✓ Cannot be a business correspondent of any bank.

# WORLD BANK'S MIGRATION AND DEVELOPMENT BRIEF

## GS 3: Economy

### Why in News?

- According to the latest edition of the World Bank's Migration and Development Brief, India has retained its position as the world's top recipient of remittances with its diaspora sending a whopping \$79 billion back home in 2018.

### Highlights:

- Remittances to low- and middle-income countries reached a record high in 2018.
- Global remittances, which also include flows to high-income countries, reached \$689 billion in 2018, up from \$633 billion in 2017.
- The officially recorded annual remittance flows to low- and middle-income countries reached \$529 billion in 2018, an increase of 9.6 % over the previous record high of \$483 billion in 2017.
- Growth in remittance inflows ranged from almost 7% in East Asia and the Pacific to 12 % in South Asia. Remittances to South Asia grew 12% to \$131 billion in 2018, outpacing the 6% growth in 2017. The overall increase was driven by a stronger economy and employment situation in the United States and a rebound in outward flows from some Gulf Cooperation Council (GCC) countries and the Russian Federation.
- In 2019, remittance flows to low- and middle-income countries are expected to reach \$550 billion, to become their largest source of external financing.
- Among countries, the top remittance recipients were India with \$79 billion, followed by China (\$67 billion), Mexico (\$36 billion), the Philippines (\$34 billion), and Egypt (\$29 billion). Remittances grew by more than 14% in India, where a flooding disaster in Kerala likely boosted the financial help that migrants sent to families. India received \$62.7 billion in 2016 and \$65.3 billion in 2017 from remittances.

### World Bank's Migration and Development Brief:

- It is prepared by the Migration and Remittances Unit, Development Economics (DEC)- the premier research and data arm of the World Bank.
- It aims to provide an update on key developments in the area of migration and remittance flows and related policies over the past six months. It also provides medium-term projections of remittance flows to developing countries. The brief is produced twice a year.

## Remittances:

- Remittances are usually understood as financial or in-kind transfers made by migrants to friends and relatives back in communities of origin. These are basically sum of two main components; Personal Transfers in cash or in kind between resident and non-resident households and Compensation of Employees, which refers to the income of workers who work in another country for a limited period of time. Remittances help in stimulating economic development in recipient countries, but this can also make such countries over-reliant on them

## CURRENCY CHESTS

### GS 3: Economy

#### Prelims Level: Currency chest

#### Why in News?

- The Reserve Bank of India (RBI) has issued guidelines for banks to set up new currency chests.

#### The guidelines:

- Area of the strong room/ vault of at least 1,500 sq ft. The new chests should have a processing capacity of 6.6 lakh pieces of banknotes per day.
- Those situated in the hilly/ inaccessible places, a capacity of 2.1 lakh pieces of banknotes per day. The currency chests should have Chest Balance Limit (CBL) of Rs 1,000 crore, subject to ground realities and reasonable restrictions, at the discretion of the Reserve Bank.

#### Currency chests and its role:

- Currency chests are branches of selected banks authorised by the RBI to stock rupee notes and coins.
- The responsibility for managing the currency in circulation is vested in the RBI
- The RBI offices in various cities receive the notes from note presses and coins from the mints. These are sent to the currency chests and small coin depots from where they are distributed to bank branches. The RBI has set up over 4,075 currency chests all over the country.
- Besides these, there are around 3,746 bank branches that act as small coin depots to stock small coins.

# GLOBAL FINANCIAL STABILITY REPORT 2019

## GS 3: Economy

### Prelims Level: Global Financial Stability Report 2019

#### Why in News?

- The International Monetary Fund (IMF) released the Global Financial Stability Report (GFSR) is a semiannual report. The April 2019 Global Financial Stability Report (GFSR) finds that despite significant variability over the past two quarters, financial conditions remain favourable.

#### Highlights:

- The report specifically focuses on corporate sector debt in advanced economies, the sovereign-financial sector nexus in the Euro area, China's financial imbalances, volatile portfolio flows to emerging markets, and downside risks to the housing market.
- It recommends action by policymakers, including through the clear communication of any changes in their monetary policy outlook, the deployment and expansion of macroprudential tools, the stepping up of measures to repair public and private sector balance sheets, and the strengthening of emerging market resilience to foreign portfolio outflows. There is high stock of non-performing assets (NPAs) in India. Portfolio flows to emerging markets are influenced by benchmark-driven investors – 70% of country allocations of investment funds are impacted by benchmark indices
- China is likely to become more important for other emerging markets as it gets included in benchmark indices. Portfolio flows to China are expected to increase by \$150 billion by 2020 due to its inclusion in a global bond index.

#### GFSR Report:

- The GFSR provides an assessment of balance sheet vulnerabilities across financial and non-financial sectors in advanced and emerging market economies.
- It is released twice per year, in April and October.
- It draws out the financial ramifications of economic imbalances highlighted by the IMF's World Economic Outlook. The GFSR issues recommendations for central banks, policymakers and others who supervise global financial markets.
- The latest GFSR introduces a way to quantify vulnerabilities in the financial system, encompassing six sectors: corporates, households, governments, banks, insurance companies, and other financial institutions.

# GIG ECONOMY

## GS 3: Economy

### Prelims level: Gig Economy

#### Why in News?

- Delhi has emerged as the top destination for migrant workers.

#### Highlights:

- An estimated 56% of new employment in India is being generated by the gig economy companies across both the blue-collar and white-collar workforce. The reasons are:
- In the digital age, the worker need not sit at a fixed location – the job can be done from anywhere, so employers can select the best talent available for a project without being bound by geography.
- The millennial generation seems to have quite a different attitude to careers. They seek to do work that they want to do rather than have careers that may not satisfy their inner urges. This suits businesses as well. In a gig economy, they save resources in terms of benefits like provident fund, paid leave and office space.
- Heightened migration and
- Readily available job training.

#### Gig Economy:

- A gig economy is a free market system in which temporary positions are common and organizations contract with independent workers for short-term engagements.
- A gig economy undermines the traditional economy of full-time workers who rarely change positions and instead focus on a lifetime career.

#### Challenges:

- The gig economy thrives largely unregulated; therefore, workers have little job security and few benefits.
- A gig-economy worker will have to upgrade his skills on his own at his own cost.
- Lack of policies on job structure, tax, privacy
- Exponential growth
- The gig economy in India with respect to workers not getting any social security, insurance, etc

## RAILWIRE WI-FI ZONES

GS 3: Economy | Infrastructure: Energy, Ports, Roads, Airports, Railways Etc

Prelims level: RailWire, RailTel

### Why in News?

- RailWire Wi-Fi by RailTel is now live at 1,600 railway stations across the country, with Santa Cruz railway station in Mumbai becoming the 1,600th station to become a RailWire Wi-Fi zone.



### RailWire:

- RailWire is a retail broadband initiative of RailTel, which envisages extending broadband and application services to the public.
- RailTel is working to establish bringing fast and free Wi-Fi at all stations (except the halt stations) within a year.
- The Wi-Fi at 415 A, A1 and C category stations has been provided in association with Google as the technology partner.
- Wi-Fi connections at 200 stations were provided with support from the Universal Service Obligatory Fund of the Govt. of India.

### RailTel:

- RailTel Corporation is a Mini Ratna(Category-I) PSU of Ministry of Railways.



- It is the largest neutral telecom services providers in the country owning a Pan-India optic fiber network covering all important towns & cities of the country and several rural areas covering 70% of India's population.

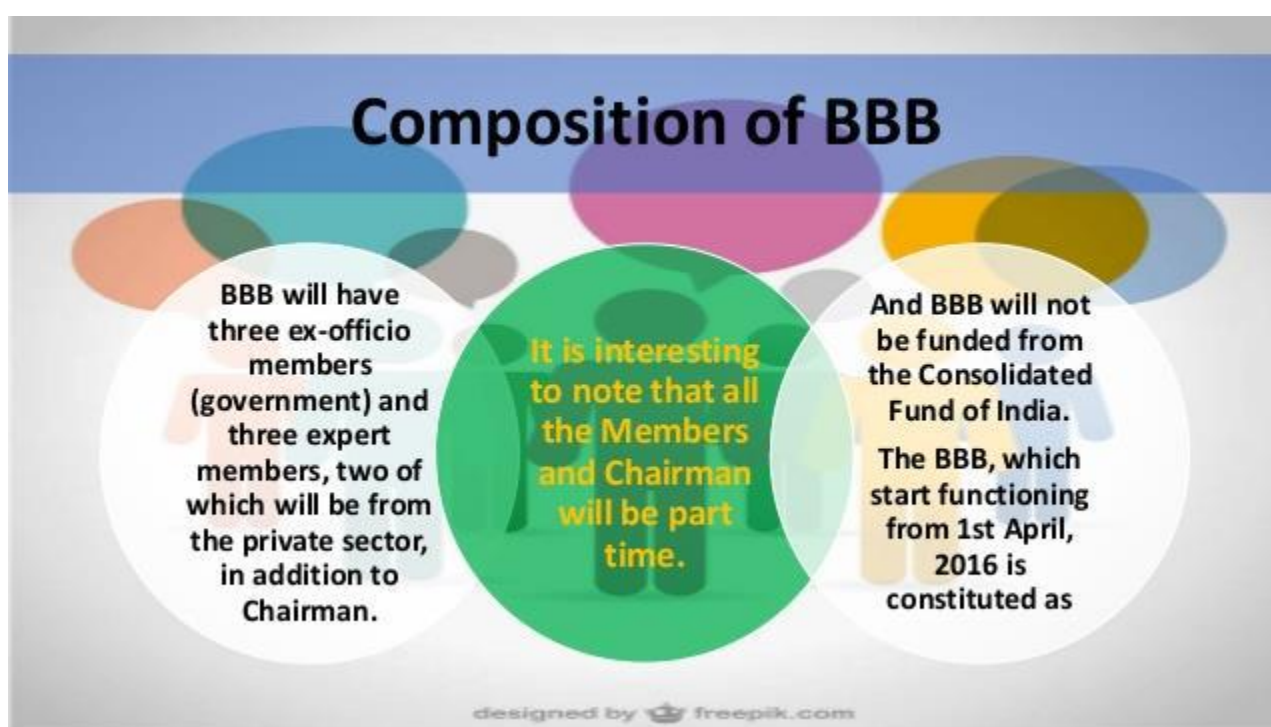
## **THE BANKS BOARD BUREAU (BBB)**

### **GS 3: Economy**

#### **Prelims level: The Banks Board Bureau (BBB)**

#### **Why in News?**

- The Banks Board Bureau (BBB), the apex body for selection of whole-time directors of state-owned lenders, has made a case for giving a complete autonomy to banks to decide organisational structure for better efficiency.



#### **Banks Board Bureau (BBB):**

- The Banks Board Bureau has its genesis in the recommendations of The Committee to Review Governance of Boards of Banks in India, May 2014.
- The Bureau started functioning from April 01, 2016 as an autonomous recommendatory body.
- The BBB was the part of Indradhanush Plan of government.
- It is the apex body of eminent professionals and officials to make recommendations for appointment of whole-time directors as well as non-executive chairman of PSBs.
- To engaging with the board of directors of all the public sector banks to formulate appropriate strategies for their growth and development.

- To frame strategy discussion on consolidation based on the requirement.
- The government wanted to encourage bank boards to restructure their business strategy and also suggest way forward for their consolidation and merger with other banks.

## **UNIFIED PAYMENTS INTERFACE**

### **GS 3: Economy**

#### **Prelims level: UPI**

#### **Why in News?**

- The Reserve Bank of India (RBI), the National Payments Corporation of India (NPCI) and some industry players from April 2018 to March 2019 shows that not only is the UPI platform outperforming e-wallets in terms of the value of transactions done, but it is also eating away at e-wallets' market share in specific areas such as person-to-merchant (P2M) transactions.

#### **UPI:**

- Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood.
- It caters to the "Peer to Peer" collect request which can be scheduled and paid as per requirement and convenience.

#### **Why UPI is outperforming e- wallets?**

- People are changing the way they transact, choosing bank-to-bank methods such as the Unified Payments Interface (UPI) over other instruments such as e-wallets.
- The UPI is completely interoperable and as such, it is unique in the world, where you have an interoperable system on the 'send' and 'receive' side.

## **PROFIT ATTRIBUTION TO PERMANENT ESTABLISHMENT (PE) IN INDIA**

### **GS 3: Economy**

#### **Prelims level: Permanent Establishment (PE)**

#### **Why in News?**

- Recognizing the significance of issues relating to attribution of profits to a permanent establishment as well as the need to bring greater clarity and predictability in the applicable tax regime, a Committee was formed by CBDT to examine the existing scheme of profit attribution to PE under Article 7 of DTAA's and recommend changes in Rule 10 of

the Income-tax Rules, 1962. The Committee has submitted its report and it has been decided to seek suggestions/comments of the stakeholders and the general public.

### **What is a Permanent Establishment?**

- A Permanent Establishment in India is a fixed place of business, wholly or partly carried out by a foreign enterprise operating in India.
- Such fixed place of business can be a branch office, a place of management, a factory, a warehouse, a workshop etc. However, the definition of permanent establishment differs in each tax treaty.
- (PE) has acquired tremendous importance in recent times as it determines taxability of a foreign company in India. Usually, foreign companies get tax concession under Double Taxation Avoidance Treaties and they pay taxes in their home countries. But if they have PEs in India, they should pay taxes for the income they have created in India. Thus, PE makes a foreign companies' Indian income taxable in India.

### **Tax treatment of PEs:**

- The significance PE lies in the fact that "business profits" of a foreign enterprise can be taxed in India only if it has a PE in India and the profits are attributable to the PE. Even the amount for "royalty" or "fee for technical services" received by foreign enterprises will be taxed in India as business profits if they are attributable to a PE in the country.

### **Background:**

- Taxation of non-residents in India is governed by the provisions of the Income-tax Act, 1961 ("the Act") and the provisions of the Double Taxation Avoidance Agreement(s) [DTAA(s)] concluded or adopted by the Central Government under the powers conferred under Section 90 or 90A of the Act, respectively.
- The business income of a non-resident can be taxed in India if it satisfies the requisite thresholds provided under the Act as well as the threshold provided in the applicable tax treaty, by a concept of Permanent Establishment (PE), which is defined in Article 5 of Model Tax Conventions and tax treaties.
- Under Article 7 in the Indian treaties, profits are to be attributed to the PE as if it were a distinct and separate entity on the basis of the accounts of the PE and where such accounts are not available to enable determination of profits attributable to the PE, the profits attributable to the PE can be determined under the domestic laws.

# RENEWABLE ENERGY CERTIFICATES

## GS 3: Economy - Mobilization of Resources

### Prelims level: REC

#### Why in News?

- Renewable Energy (RE) companies have moved the Delhi High Court, seeking an exemption for Renewable Energy Certificates (RECs) under the GST.

#### RECs in India:

- In a bid to promote renewable energy market in India, the Indian government has framed policies under the Electricity Act, 2003 and the National Action Plan on Climate Change (NAPCC) to increase the total renewable power generation capacity in the country.
- Renewable Energy Certificates (REC) is a policy instrument to catalyze the development of renewable energy. It is a market-based mechanism which will help the states meet their regulatory requirements (such as Renewable Purchase Obligations (RPOs)) by overcoming the geographical constraints on existing renewable potential in different states.
- RECs unbundle the electricity component (commodity) from the green/environmental attributes of the power generated from renewable sources.
- Both the components can then be traded separately.
- Thus RECs help in incentivizing the production of renewable energy over and above the RPO state limit as tradable certificates are not constrained by the geographical limitations of commodity electricity.

#### Working with RECs:

- The tradable RECs are awarded for every 1 mega-watt hour (MWh) of electricity generated.
- Together with Renewable Purchase Obligations (RPO), RECs act as market-pull incentives that create demand for renewable energy installations.
- RPO, instituted in 2011, is a mandate that requires large power procurers to source a pre-determined fraction of their electricity from renewable sources.

#### Problems of states:

- The concentration of RE potential in a few states means that the same level of RPO compliance cannot be expected from all states.
- Low potential states will have to resort to expensive cross-border procurement, accompanied with many regulatory hurdles and additional charges.

## REC:

- The REC market was introduced to facilitate RPO compliance by incentivizing RE procurement.
- First, the REC mechanism presents an alternative for state discoms, with insufficient renewable capacity, to meet their RPO obligations.
- Second, stand-alone projects built independent of the well-established auction regime have little incentive and a high-risk perception, lacking purchase guarantees and payment default protections.
- The income generated from trading RECs will bolster such independent projects.

## Why GST on RECs?

- RECs are being charged GST, while bundled power (RECs plus electricity, irrespective of source) or even just electricity are devoid of the same.
- Cost of electricity generation from renewable energy sources is classified as cost of electricity generation (equivalent to conventional energy sources) and the cost of environmental attributes.
- RECs is the environmental attribute of the electricity derived from RE.
- As per regulations, RPO compliance through REC is at par with sourcing electricity directly from RE.
- Therefore, GST applicable on the sale of RECs negatively affects its parity with similar electricity sale alternatives, be it conventional or renewable.

## SEBI REDUCES MINIMUM SUBSCRIPTION REQUIREMENT FOR REITs

### GS 3: Economy - Mobilization Of Resources

## Why in News?

- SEBI has reduced the minimum subscription requirement as well as defined trading lots for REITs and InvITs.

## Highlights:

- SEBI has come out with its guidelines titled "Guidelines for Determination of Allotment and Trading Lot Size for Real Estate Investment Trusts (REITs) and Infrastructure Investment Trusts (InvITs)"
- For determining the allotment in an initial offer and follow on public offers, REITs have to offer their units in lots worth at least Rs 50,000 and in case of InvITs, the minimum value of a single lot should be Rs 1 lakh.

- The allotment to any investor shall be made in the multiples of a lot.
- For initial listing in case of REITs and InvITs, a trading lot should be of 100 units and for follow on public offers, each lot shall consist of such number of units in its trading lot as it had at the time of initial offer.
- Moreover, SEBI has also increased the leverage limit for InvITs from 49 per cent to 70 per cent.

## **GLOBAL TALENT COMPETITIVE INDEX 2019**

### **GS 3: Economy - Reports**

#### **Prelims level: Global Talent Competitive Index 2019**

#### **Why in News?**

- The sixth consecutive year in the Global Talent Competitiveness Index (GTCI) 2019, announced in Singapore.

#### **Highlights:**

- The theme of 'Entrepreneurial Talent and Global Competitiveness' attempts to identify the ways in which companies, countries, and cities can foster entrepreneurial talent which makes up a critical component of competitiveness and innovation, and will become even more so in a fast-paced world of digitisation and globalisation.
- The report also reveals that cities rather than countries are developing stronger roles as talent hubs and will be crucial to reshaping the global talent scene.

#### **India's performance:**

- India remains the laggard in the BRICS (Brazil, Russia, India, China and South Africa) region and was ranked 80.
- It performs better than its lower-income peers when it comes to growing (48th) talent, primarily by virtue of the possibilities for Lifelong Learning (38th) and Access to Growth Opportunities (41st).
- An above-average Business and Labour Landscape (38th) and Employability (34th) raise the scores of the pillars related to Enable (70th) and Vocational and Technical Skills (72nd) that are otherwise hampered by the remaining sub-pillars.
- India's biggest challenge is to improve its ability to Attract (95th) and Retain (96th) talent.
- There is a need to address its poor level of Internal Openness (116th) – in particular with respect to weak gender equality and low tolerances towards minorities and immigrants – and its disappointing showing in Lifestyle indicators.

## Global findings:

- In this sixth edition, Switzerland continues to lead the 2019 Global Talent Competitiveness index, while Singapore and the United States come in second and third respectively.
- Singapore continues to occupy the top spot in Asia Pacific. It is the highest-ranked country in three of the six pillars – Enable, Attract, and Global Knowledge Skills.
- Yemen has finished at the bottom of this year's index at 125th, just below Congo (124th) and Burundi (123rd).

## RBI DIVESTS ENTIRE STAKE IN NHB, NABARD

### GS 3: Economy - Issues relating to planning, mobilization of resources

#### Why in News?

- The RBI has divested its remaining stake in the National Bank for Agriculture and Rural Development (NABARD) and National Housing Bank (NHB) in February and March this year.
- The government now fully owns these two financial institutions.
- The RBI once held 100 per cent shareholding in NHB, which was divested on March 19, 2019.

#### NABARD:

- NABARD is an apex development financial institution in India, headquartered at Mumbai with regional offices all over India.
- It is India's specialised bank in providing credit for Agriculture and Rural Development in India.
- The Bank has been entrusted with "matters concerning policy, planning and operations in the field of credit for agriculture and other economic activities in rural areas in India".
- It was established on the recommendations of B.Sivaraman Committee on 12 July 1982 to implement the NABARD Act 1981.
- NABARD supervises State Cooperative Banks (StCBs), District Cooperative Central Banks (DCCBs), and Regional Rural Banks (RRBs) and conducts statutory inspections of these banks.

#### National Housing Bank:

- NHB is an All India Financial Institution (AIFI), set up in 1988, under the National Housing Bank Act, 1987.

- The National Housing Policy, 1988 has envisaged the setting up of NHB as the Apex level institution for housing.
- It is an apex agency established to operate as a principal agency to promote housing finance institutions both at local and regional levels.
- It aims to provide financial and other support incidental to such institutions and for matters connected therewith.

## **RBI EXTENDS OMBUDSMAN SCHEME TO NON-DEPOSIT TAKING NBFCs**

### **GS 3: Economy**

#### **Why in News?**

- Reserve Bank of India (RBI) announced the extension of the Ombudsman Scheme for Non-Banking Financial Companies (NBFCs).

#### **Highlights:**

- To eligible non-deposit taking non-banking financial companies (NBFC-NDs) having asset size of Rs 100 crore or above with customer interface.
- It has been done to ensure expeditious redressal of complaints against deficiency in services concerning loans and other matters relating to deficiency in the services by NBFCs.

#### **Ombudsman Scheme for Non-Banking Financial Companies (NBFCs):**

- The Scheme was launched on February 23, 2018, for redressal of complaints against NBFCs registered with RBI under Section 45-IA of the RBI Act, 1934 and covered all deposit accepting NBFCs.
- The NBFC Ombudsman is a senior official appointed by the Reserve Bank of India to redress customer complaints against NBFCs for deficiency in certain services covered under the grounds of complaint specified under the Scheme.
- It provides a cost-free and expeditious complaint redressal mechanism relating to deficiency in the services by NBFCs covered under the scheme.
- The scheme also provides for an appellate mechanism under which the complainant / NBFC has the option to appeal against the decision of the Ombudsman before the appellate authority.
- The offices of the NBFC Ombudsmen are functioning at Chennai, Kolkata, Mumbai and New Delhi and handle complaints of customers in the respective zones.



## Who is an Ombudsman?

- An ombudsman is a public advocate is an official who is charged with representing the interests of the public by investigating and addressing complaints of maladministration or a violation of rights.
- The ombudsman is usually appointed by the government or by parliament, but with a significant degree of independence.
- The typical duties of an ombudsman are to investigate complaints and attempt to resolve them, usually through recommendations (binding or not) or mediation. Ombudsmen sometimes also aim to identify systematic issues leading to poor service or breaches of people's rights.

## INDIAN ARMY SIGNS MOU WITH NHPC TO BUILD UNDERGROUND TUNNELS

### GS 3: Economy - Issues relating to planning, mobilization of resources

#### Why in News?

- Indian Army has signed a Memorandum of Understanding (MoU) with National Hydroelectric Power Corporation (NHPC) Limited to build four underground tunnels.

#### Highlights:

- The agreement is to build four underground tunnels along China and Pakistan borders for storage of ammunition and other war-related equipment.
- Three tunnels will be built along the Chinese border and one tunnel will be built along the Pakistan border.
- The tunnel can store 175-200 metric tonnes of ammunition and the cost of this pilot project is around Rs 15 crore.

#### National Hydroelectric Power Corporation Limited:

- NHPC is an Indian Hydropower generation company.
- It has an objective to plan, promote and organise an integrated and efficient development of hydroelectric power in all aspects.
- NHPC was founded in 1975.
- It is headquartered at Faridabad, Haryana, India.
- Balraj Joshi is the Chairman & MD of NHPC.

## **RBI EXTENDS OMBUDSMAN SCHEME TO NON-DEPOSIT TAKING NBFCs**

### **GS 3: Economy**

#### **Why in News?**

- State Bank of India (SBI) has recently launched India's first 'Green Car Loan' to encourage customers to buy electric vehicles.

#### **Highlights:**

- Green Car Loan is part of its environment friendly commitment towards building a cleaner and greener environment. With this initiative, SBI has become India's first bank to offer a loan specifically for electric cars.
- With this initiative SBI believes that Green Car Loan scheme would act as a change agent in auto loan segment and encourage customers to switch to electric vehicles which can improve overall air quality and lower carbon emissions.
- The bank also became the first major Indian organisation, along with Wipro, to join the Climate Group's EV100 initiative for accelerating the roll-out of electric vehicles worldwide.

#### **Key Highlights:**

- The new scheme will offer loan at 20 basis points lesser than the interest rate on the existing car loan schemes.
- The EMI per Rs. One Lakh will be lower at Rs. 1,468 for 96 months against Rs. 1,622 for 84 months, based on the maximum tenor, in line with the existing scheme.
- SBI Green Car Loan (Electric Vehicle) scheme, which comes with the longest repayment period of up to eight years, is a strategic inclusion to the bank's auto loan segment offered with zero processing fees for the first six months of the launch.

#### **Significance:**

- This initiative of SBI will encourage government's agenda for making India free of vehicles which run on petrol and diesel.
- In line with Government of India's pledge of ensuring 30% electric vehicles on the road by 2030, SBI has already announced 100% migration towards electric vehicles by 2030 to reduce carbon footprints.

# **INTERNATIONAL RELATIONS & INTERNAL SECURITY**

## **COMPREHENSIVE CONVENTION ON INTERNATIONAL TERRORISM**

### **(CCIT)**

**GS 3: Internal Security | Linkages of organized crime with terrorism**

**Prelims Level: Comprehensive Convention on International Terrorism (CCIT)**

#### **Why in News?**

- In the wake of growing threats and acts of terrorism across the world, India and Bolivia have called for an early finalization of Comprehensive Convention on International Terrorism (CCIT).

#### **Comprehensive Convention on International Terrorism:**

- CCIT is a proposed treaty which intends to criminalize all forms of international terrorism and deny terrorists, their financiers and supporters access to funds, arms, and safe havens.
- The CCIT was proposed by India in 1996.
- CCIT provides a legal framework which makes it binding on all signatories to deny funds and safe havens to terrorist groups.
- The original draft that was tabled in 1996 included following major objectives:
  - ✓ To have a universal definition of terrorism that all 193-members of the UNGA will adopt into their own criminal law
  - ✓ To ban all terror groups and shut down terror camps
  - ✓ To prosecute all terrorists under special laws
  - ✓ To make cross-border terrorism an extraditable offence worldwide

## **UAE CABINET ANNOUNCES NEW PROCESS OF VISA FACILITATION FOR EXPAT FAMILIES**

**GS 2: IR | Bilateral relations**

#### **Why in News?**

- The United Arab Emirates (UAE) on March 31, 2019 announced new visa guidelines as per which family members of foreign citizens, including Indians, working in the country will now be able to get an "expat visa" if the working relative fulfils income criteria.
- The new process for visa facilitation was announced by UAE Cabinet. Under the new guidelines, the salary of the expat will be taken into account rather than job title to sponsor their immediate family member to come and stay with them.

## Significance:

- The amendment is in line with international developments and accordance with best practices.
- The decision aims at enhancing family stability of foreign workers and social cohesion, as well as attracting highly skilled workers while maintaining a healthy balance between professional and personal life.

## Highlights:

- The UAE Cabinet has adopted a decision to amend provisions of the resolution on sponsoring of family members of the foreign workers in the country.
- The amended provisions now indicate income as a requirement for sponsoring family members, as opposed to the previously listed professions that allowed workers to sponsor their families.
- Under the new changes, the expatriate residents, both employers and employees, may sponsor their families in the UAE provided they have a valid residency permit.
- The male residents employed in the UAE will be able to sponsor their immediate family members, such as wife and children, provided that they fulfill the income criteria, which includes having a minimum salary of 4,000 Dirhams or 3,000 Dirhams plus accommodation.
- The other key requirement for male residents is that they must hold a profession that allows them to sponsor their family. However, the mother will not be allowed to sponsor her family.
- Besides, domestic helpers and certain other categories can also not sponsor their families regardless of their salary.

## **MH-60 'ROMEO' SEAHAWK HELICOPTERS**

### GS 3: Internal Security

#### Why in News?

- The United States has approved the sale of 24 multi-role MH-60 'Romeo' Seahawk helicopters to India at an estimated cost of 2.4 billion US dollars. The announcement was made by the US State Department on April 2, 2019.
- In its notification, the state department told the Congress that this proposed sale will support the US foreign policy by helping strengthen the US-Indian strategic relationship.

The statement added that the sale of the helicopters will not alter the basic military balance in the region.

### **Significance:**

- The sale is expected to improve the security of a major defensive partner which continues to be an important force for political stability, peace, and economic progress in the Indo-Pacific and South Asia region.

### **Highlights:**

- The MH-60 Romeo Seahawk helicopter is considered to be the world's most advanced maritime helicopter.
- Built by Lockheed Martin, the helicopters are designed to hunt down submarines, as well as knock out ships and conduct search-and-rescue operations at sea.
- India has been in need of these formidable anti-submarine hunter helicopters for more than a decade now. The advanced choppers would replenish India's aging fleet of British-made Sea King helicopters.
- They will provide the Indian defence forces with the capability to perform anti-surface and anti-submarine warfare missions along with the ability to perform secondary missions including vertical replenishment, search and rescue and communications relay.

### **Impact:**

- India will use the enhanced capability as a deterrent to regional threats and strengthen its homeland defense.
- The helicopters are the need of the hour for India, especially with the aggressive behaviour of China in the Indian Ocean region.

### **Background:**

- The helicopters are currently deployed with the US Navy as the primary anti-submarine warfare anti-surface weapon system for open ocean and littoral zones.
- According to industry experts, it is the most capable naval helicopter available in recent times, which is designed to operate from frigates, destroyers, cruisers and aircraft carriers.

## INDIA GAINS ACCESS TO BOLIVIAN LITHIUM RESERVES

### GS 2: IR | Bilateral relations

#### Why in News?

- India has leveraged its way into the Bolivian lithium reserves after signing a Memorandum of Understanding (MoU) in Bolivia for development and industrial use of lithium, a prime component used to power electric vehicles and cell phones.

#### Highlights:

- Both the countries agreed to forge mutually beneficial partnership to facilitate Bolivian supplies of lithium Carbonate to India and foster joint ventures for lithium battery / cell production plants in India. The move will make Bolivia, which is known to have one-fourth of the world's lithium reserves, one of the major provider of metal for India's e-mobility and e-storage needs. This agreement is supposed to form the backbone for the recently launched FAME India policy (Faster Adoption and Manufacture of (Hybrid and) Electric Vehicles) and It will give a substantial push to India's ambition to have at least 30 per cent of its vehicles run on electric batteries by 2030.

## STRATEGIC EXPERTS AND TECHNOCRATS DELIBERATE ON "MISSION SHAKTI"

### GS 3: Internal Security

#### Prelims level: Mission Shakti

#### Why in News?

- A special interaction session was organized by Defence Research and Development Organisation (DRDO), here today to present first-hand account of the mission details, development milestones including technological aspects of Mission Shakti.

#### Highlights:

- DRDO presented the objectives, mission challenges and achievements of the Anti-Satellite Test (A-SAT).
- DRDO had successfully conducted an Anti-Satellite Missile Test (A-SAT) 'Mission Shakti' from Dr APJ Abdul Kalam Island in Odisha on March 27, 2019 and made India join the select group of three nations (USA, Russia and China) possessing such capability.

#### Mission Shakti:

- Mission Shakti an anti-satellite weapon ASAT is successful by targeting a live satellite in a low earth orbit.

- It is an important step towards securing India's safety, economic growth and technological advancement. No doubt ASAT weapon system will give a new strength to India's space programme. ASAT is anti-satellite weapon system that is designed to destroy or incapacitate satellites. Development of such type of weapon systems has a long history.
- Significance of the test is that India is successful in demonstrating its capability to intercept a satellite in the outer space that too based on complete indigenous technology.
- The satellite that was destroyed was Indian and DRDO's Ballistic Missile Defence interceptor was used. India used the technology of Kinetic Kill to achieve the objectives that were set out in the mission.

## **INDIAN NAVY SIGNS MOU WITH COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH**

### **GS 3: Internal Security**

#### **Why in News?**

- The Indian Navy and Council of Scientific and Industrial Research (CSIR) on April 5, 2019 signed a Memorandum of Understanding (MoU) to undertake joint research and development of advanced technologies for the Indian Navy.

#### **Highlights:**

- The agreement facilitates a formal framework for interaction between the Indian Navy and the research council. Under the agreement, joint research and development activities will be undertaken in the diverse fields of Mechanical, Electronics, Communication, Computer Science, Propulsion systems, Metallurgy and Nanotechnology.
- The agreement will be a collaborative arrangement between labs of CSIR, the Indian Navy and the Indian industry. Some of the immediate projects to be progressed under this MoU include development of alternative desalination technologies, installation of wireless MEMS based sensors for remote operation and residual life assessment studies of gas turbine generator blades to improve reliability.

#### **Significance:**

- The collaboration between the armed forces and world class national institutions such as the CSIR will allow the Indian Navy to leapfrog towards latest technologies as well as jointly engage under 'Make in India' and other innovative programmes of the Union Government. It would also form the foundation for exchange of ideas and development of new technologies in the future.

## U.S. TO DESIGNATE IRAN'S ELITE FORCE AS TERRORIST GROUP

### GS 3: International Relations

#### Why in News?

- The U.S. is expected to designate Iran's elite Revolutionary Guards Corps a foreign terrorist organisation, three U.S. officials told.
- This development marks the first time where the U.S. has formally labelled another country's military a terrorist group.

#### Highlights:

- The decision, which critics warn could open U.S. military and intelligence officials to similar actions by unfriendly governments abroad, is expected to be announced by the U.S. State Department, perhaps as early as on the 8th of April, 2019 the officials said.
- The administration's decision to make the designation was first reported by The Wall Street Journal.
- The U.S. has already blacklisted dozens of entities and people for affiliations with the IRGC, but the organisation as a whole has not been blacklisted.
- In 2007, the U.S. Treasury designated the IRGC's Quds Force, its unit in charge of operations abroad, "for its support of terrorism," and has described it as Iran's "primary arm for executing its policy of supporting terrorist and insurgent groups."
- Iran said it put the U.S. military on its terror list in response. "If the Revolutionary Guards are placed on America's list of terrorist groups, we will put that country's military on the terror blacklist next to Daesh (Islamic State)," Heshmatollah Falahatpisheh, said head of Parliament's National Security Committee.

## WORLD HEALTH DAY

### GS 3: International Events

#### Why in News?

- April 7 of each year marks the celebration of World Health Day. This year's World Health Day will focus on equity and solidarity.
- Theme of World Health Day 2019 is Universal Health Coverage: Everyone, Everywhere.

#### Highlights:

- The celebration has aimed to create awareness of a specific health theme to highlight a priority area of concern for the World Health Organization.



- Over the past 50 years this has brought to light important health issues such as mental health, maternal and child care, and climate change.
- The celebration is marked by activities which extend beyond the day itself and serves as an opportunity to focus worldwide attention on these important aspects of global health.

## **US URGES IMMEDIATE HALT TO MILITARY OPERATIONS IN LIBYA**

### **GS 3: International Events**

#### **Why in News?**

- The United States on April 7, 2019 called for an immediate halt to military operations in Libya as the Libyan National Army headed by Khalifa Haftar advanced on the nation's capital, Tripoli.

#### **Highlights:**

- General Khalifa Haftar's Libyan National Army (LNA) forces have been carrying out a multi-pronged attack from the south and west of Tripoli since April 4.
- On April 7, LNA carried out its first air strike, a day after the UN-backed Government of National Accord (GNA) hit them with air strikes on April 6.
- Around 11 people were killed and 23 wounded in clashes in southern Tripoli on April 7.
- The UN had appealed for a two-hour truce so casualties and civilians could be evacuated, but the fighting continued.
- International powers have begun evacuating personnel from Libya amidst the worsening security situation.
- While the US Africa Command, responsible for US military operations and liaison in Africa temporarily relocated its contingent due to increased unrest, India also evacuated its full contingent of 15 CRPF peacekeepers due to the worsening situation in Libya

#### **Libyan Crisis:**

- Libya has been torn by violence and political instability since long-time ruler Muammar Gaddafi was toppled and killed by rebels in 2011.
- The crisis was triggered by the Arab Spring protests, a series of anti-government protests, uprisings and armed rebellions that spread across the Middle East in late 2010.
- The protests led to a civil war, which invited intervention from a multinational coalition led by NATO forces to protect civilians against attacks by the government's forces..
- Gaddafi was ousted from power in the wake of the fall of Tripoli to the rebel forces in August 2011, although pockets of resistance held by forces loyal to Gaddafi's government

held out for another two months, especially in Gaddafi's hometown of Sirte, which he declared as the new capital of Libya in September 2011.

- Gaddafi's regime finally came to an end in October 2011 with Sirte's capture and his killing by rebel fighters.
- The civil war's aftermath and proliferation of armed groups led to violence and instability across the country, which erupted into renewed civil war in 2014 among rival groups seeking control of the territory of Libya.

## **ARMY COMMANDERS' CONFERENCE 2019**

### **GS 3: Internal Security**

#### **Why in News?**

- The biannual Army Commanders' Conference 2019 began on April 8, 2019 in New Delhi. The opening address was delivered by the Defence Minister, Nirmala Sitharaman.
- The conference will go on till April 14, 2019 and will be chaired by General Bipin Rawat, Chief of the Army Staff.

#### **Highlights of the Army Commanders' Conference 2019:**

- The senior commanders will deliberate upon specific issues pertaining to Army formations and Army as a whole.
- The conference will witness discussions over a few important issues including management of the extant security dynamics, mitigation of future security threats and enhancement of combat over potential opponents.
- It will also deliberate on issues like infrastructure development for capacity enhancement along the Northern borders, review of strategic railway lines, issues related to Border Road Organization projects, and operations, administration and welfare of troops

#### **Army Commanders' Conference:**

- 'The Army Commanders' Conference is held biannually for formulating important policy decisions through collegiate deliberations.
- It is an important event for planning and execution process of the Indian Army
- The conference is chaired by the Chief of the Army Staff.

# INTERNATIONAL CONVENTION ON WORLD HOMOEOPATHY DAY

## Prelims level: World Homoeopathy Day

### GS 3: International Events

#### Why in News?

- A two-day convention is being organised on 9-10th April 2019 by the Central Council for Research in Homoeopathy (CCRH), an autonomous research organisation, Ministry of AYUSH on the occasion of the World Homoeopathy Day at Dr. Ambedkar International Centre in New Delhi.

#### Highlights:

- The World Homoeopathy Day is observed to commemorate the birth anniversary of the founder of Homoeopathy, Dr. Christian Fredrich Samuel Hahnemann.
- With an aim to recognise exemplary work in Homoeopathy, AYUSH awards relating to Homoeopathy for Life Time Achievement, Best Teacher, Young Scientist and Best Research paper will be conferred on this occasion.
- This WHD, 24 students will be awarded scholarships under the Short Term Studentship in Homoeopathy (STSH) and four students for 'Quality MD Dissertation in Homoeopathy'.
- MOU's will be signed with two more PG Homoeopathic Colleges with an effort to link education with research. The vision behind the agreement would be to provide impetus to research infrastructure, which, in turn, further orient the students towards research.
- A wide range of topics will be covered in the convention like Linking education and clinical practice with research, Homoeopathic Education: Research component, Utilisation of existing research by clinicians , Drug Development & Validation, Research initiatives by students under Studentship & MD Scholarship schemes , Documented clinical experiences, Homoeopathy in public health, Fortifying theories and clinical practice with research, Road ahead for Homoeopathy, Skill development in scientific writing, Strengthening research infrastructure in educational organisations, Drug Provings and Guidelines for Publishing Research.

## **SRI LANKA SEEKS ENHANCED MILITARY TRAINING FROM INDIA**

### **GS 2: IR | Bilateral relations**

#### **Prelims Level: India Sri Lanka Relations**

#### **Why in News?**

- Sri Lanka has sought enhanced military training from India, according to President Maithripala Sirisena's office.

#### **Highlights:**

- Wide-ranging matters, including bilateral defence cooperation between the neighbouring countries and regional security, were reported to have been discussed.
- India and Sri Lanka agreed to increase cooperation in security and defence spheres in several areas, including regional security, curbing drug smuggling and human trafficking and training of members of the security forces.
- Thanking India for its partnership, The Sri Lankan President requested to increase the number of personnel trained by India. The Indian Defence Secretary agreed to look into the possibility of enhancing training facilities.

#### **India - Sri Lanka defence relationship:**

- Currently, over 60% of Sri Lanka's military personnel pursue their young officers' course, junior and senior command courses in India, according to defence sources in Colombo.
- 'Exercise Mitra Shakti', the sixth edition of the joint military training exercise between the Indian Army and the Sri Lankan Army, recently concluded in Sri Lanka
- The contingents from the two countries jointly planned and executed a series of well-coordinated tactical operations based on scenarios that are likely to be encountered in rural and urban environment.
- The two-week programme is part of an initiative that began in 2013 as part of military diplomacy between India and Sri Lanka.

## **ARMY GETS DHANUSH ARTILLERY GUNS**

### **GS 3: Internal Security**

#### **Prelims Level: Dhanush artillery guns**

#### **Why in News?**

- The Ordnance Factory Board (OFB) handed over the first batch of six Dhanush artillery guns to the Army.

## Highlights:

- Dhanush is the indigenously upgraded gun of the Swedish Bofors gun procured in the 1980s.
- Dhanush is a 155 mm, 45-calibre towed artillery gun with a range of 36 km and has demonstrated a range of 38 km with specialised ammunition.
- It is an upgrade of the existing 155m, 39 calibre Bofors FH 77 gun.
- In army parlance, it is classified as 'medium artillery'.
- It is compatible with all North Atlantic Treaty Organisation (NATO) 155 mm ammunition system. The gun is fitted with inertial navigation system with global positioning system- (GPS) based gun recording and auto-laying, an enhanced tactical computer for onboard ballistic computations, an onboard muzzle velocity recording, an automated gun sighting system equipped with camera, thermal imaging and laser range finder.
- Indigenisation to the extent of about 81%, has already been achieved. By the end of 2019, the indigenisation level of the gun will go up to 91%," the Defence Ministry said in a statement. It is one of the "Make in India" marvels.

## IMO'S NEW RULE ON ELECTRONIC INFORMATION EXCHANGE

### GS 3: International Events

#### Why in News?

- International Maritime Organisation (IMO) has mandated new rules for national governments to introduce electronic information exchange between ships and ports

#### Highlights:

- The new rules took effect from 8th of April 2019 and, seeks to make cross-border trade simpler and the logistics chain more efficient.
- The requirement, mandatory under IMO's Convention on Facilitation of International Maritime Traffic (FAL Convention), is part of amendments under the revised Annex to the FAL Convention, adopted in 2016.

#### FAL Convention:

- The Facilitation of International Maritime Traffic (FAL Convention) was adopted in 1965.
- The main objective of the convention is to achieve the most efficient maritime transport as possible, looking for smooth transit in ports of ships, cargo, and passengers.

- Encourages the use of a “single window” for data, to enable all the information required by public authorities in connection with the arrival, stay and departure of ships, persons and cargo, to be submitted via a single portal, without duplication.
- Under the requirement for electronic data exchange, all national authorities should now have provision for electronic exchange of this information.

### India’s Initiatives:

- India launched a Port Community System – ‘PCS1x’ – at ports in December 2018.
- Port Community System (PCS1x) is a cloud-based new generation technology, with a user-friendly interface.
- This system will enable maritime trade to have improved communication with the customs.

### IMO:

- The International Maritime Organization is a specialized agency of the United Nations.
- IMO is responsible for measures to improve the safety and security of international shipping and to prevent pollution from ships.
- It is also involved in legal matters, including liability and compensation issues and the facilitation of international maritime traffic.
- It was established by means of a Convention adopted under the auspices of the United Nations in Geneva on 17 March 1948 and met for the first time in January 1959.
- It has 174 Member States.

## STATE OF WORLD POPULATION-2019

### GS 3: International Reports

#### Prelims Level: State of World Population-2019

#### Why in News?

- The State of World Population-2019 released by United Nations Population Fund (UNFPA).

#### Highlights:

- India’s population grew at an average of 1.2% annually between 2010 and 2019 which is more than double the annual growth rate of China.
- Around half of India’s population in 24 states have achieved the replacement fertility rates of 2.1 children per women, which is the desired family size when the population stops growing.

- 27% of India's population was in the age bracket of 0-14 years and 10-24 years, while 67% of the country's population was in the 15-64 age bracket. 6% of the country's population was of the age 65 and above.
- India registered an improvement in life expectancy at birth. The life expectancy at birth in 1969 was 47 years, growing to 60 years in 1994 and 69 years in 2019.
- The findings on women aged between 15-49 years were published for the first time as part of United Nations Population Fund's (UNFPA) State of World Population 2019 report. It includes data on women's ability to make decisions over three key areas:
  - ✓ Sexual intercourse with their partner
  - ✓ Contraception use and
  - ✓ Health care.
- According to the analysis, the absence of reproductive and sexual rights has major and negative repercussions on women's education, income and safety, leaving them "unable to shape their own futures".
- Early marriage continues to remain an obstacle to female empowerment and better reproductive rights.
- The report highlights the threat to women's and girls' reproductive rights posed by emergencies caused by conflict or climate disasters.
- The release of report marks 50 years of the UNFPA being established to support countries to bring down fertility levels.
- It also marks 25 years of International Conference on Population and Development (ICPD) in 1994, where 179 governments agreed on a rights-based approach to sexual and reproductive health to address population growth.

### **Reproductive health:**

- Reproductive health can be defined as a state of well-being related to one's sexual and reproductive life.
- It implies, "that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so".

### **UNFPA:**

- It is the United Nations sexual and reproductive health agency.
- It was established as a trust fund in 1967 and began operations in 1969.

- The mandate of UNFPA is established by the United Nations Economic and Social Council (ECOSOC).
- UNFPA is a subsidiary organ of the UN General Assembly.
- UNFPA is entirely supported by voluntary contributions of donor governments, intergovernmental organizations, the private sector, and foundations and individuals, NOT by the United Nations regular budget.
- UNFPA works directly to tackle Sustainable Development Goal 3 on health, Goal 4 on education and Goal 5 on gender equality.

### **EXERCISE BOLD KURUKSHETRA**

#### **GS 3: Internal Security**

##### **Why in News?**

- The 12th edition of joint military exercise between India and Singapore culminated on 11 April 2019 after an impressive closing ceremony held at Babina Military Station (UP).
- The Exercise is aimed at attaining a high level of interoperability between the armies of both the nations through mutual understanding and familiarization with each other's operational procedures and equipment.
- The troops learnt about each other's organisations and best practices being followed in combat.
- The exercise was a grand success and taught valuable lessons to troops of both the participating nation

### **VIRTUAL REALITY CENTRE OF INDIAN NAVY**

#### **GS 3: Internal Security**

##### **Why in News?**

- Chief of Naval Staff Admiral Sunil Lanba inaugurated the first 'state-of-the-art' Virtual Reality Centre (VRC) at the Directorate of Naval Design (Surface Ship Group), New Delhi.

##### **Highlights:**

- This centre would provide major boost to the Indigenous warship design capabilities of Indian Navy
- Providing impetus to self-reliance and greater fillip to warship construction under "Make in India" initiative of the Indian government.

##### **Virtual Reality:**

- Virtual Reality (VR) is the use of computer technology to create a simulated environment.



- Virtual Reality's most immediately-recognizable component is the head-mounted display (HMD).
- It shall boost indigenous warship design capabilities

### Augmented Reality (AR):

- It is an enhanced version of reality where live direct or indirect views of physical real-world environments are augmented with superimposed computer-generated images over a user's view of the real-world, thus enhancing one's current perception of reality.

## INDIA TO BE TREATED AS NATO ALLY

### GS 3: IR | Bilateral, Regional and Global Groupings and agreements involving India

Prelims level: HR 2123

### Why in News?

- American lawmakers have reintroduced a key legislation in their House of Representatives which seeks to advance the US-India strategic relationship.

### HR 2123 Bill:

- It seeks to send a powerful signal that defence sales to India should be prioritized according to US-India Strategic Partnership Forum, which had worked on this important legislation.
- The proposed legislation follows the National Defense Authorization Act (NDAA) of 2017 including special language that designated India as a "Major Defence Partner" of the US.
- Although powerful in its own right, the NDAA FY 2017 has no legal bearing on the State Department's body of legislation, nor does it compel the State Department to view defence with India more favourably.
- To fulfil the spirit and intent of the NDAA 2017, the US-India Enhanced Cooperation Act would amend the Arms Export Control Act to put India on par with NATO allies and Israel, South Korea, New Zealand, Australia and Japan.
- The two taken together illustrates the major changes that have taken place in the India-US relationship over the past two decades.

### Impact of the legislation:

- If enacted, the legislation would ensure that the US State Department treats India as a "NATO ally" for the purposes of the Arms Export Control Act.

- India is the world's largest democracy, a pillar of stability in the region, and has shown strong commitments to export control policies.
- This adjustment to US law will further allow the US-India partnership to flourish in line with our security commitment to the Indo-Pacific region.

## **NIRBHAY SUB-SONIC CRUISE MISSILE**

### **GS 3: Internal Security**

#### **Prelims level: Nirbhay Sub-Sonic Cruise Missile**

#### **Why in News?**

- Defence Research & Development Organisation (DRDO) successfully test fired indigenously designed & developed Long Range Sub-Sonic Cruise Missile "Nirbhay" from the Integrated Test Range (ITR), Chandipur Odisha.

#### **Highlights:**

- It is the sixth development flight trial with the objective to prove the repeatability of boost phase, cruise phase using waypoint navigation at very low altitudes.
- The missile took off vertically turning horizontally into the desired direction, booster separated, the wing deployed, the engine started, cruised all the intended waypoints. The missile demonstrated its sea-skimming capability to cruise at very low altitudes.
- The entire flight was fully tracked by a chain of Electro-Optical Tracking Systems, Radars and Ground Telemetry Systems deployed all along the sea coast.
- All the mission objectives were met.

## **INDO-PACIFIC WING SET UP IN THE FOREIGN OFFICE**

### **GS 3: IR**

#### **Why in News?**

- The Ministry of External Affairs has set up an Indo-Pacific Wing in the foreign office.

#### **Highlights:**

- The Indo-Pacific division is intended to give a coherent architecture to the Indo-Pacific policy articulated by PM Narendra Modi at the Shangri-La Dialogue in 2018.
- Setting up of this special wing or division makes a strong strategic statement.

#### **Indo-Pacific Wing or Indo-Pacific Division:**

- The Indo-Pacific Wing is currently headed by joint secretary Vikram Doraiswami.

- The Indo-Pacific Wing is a big step by the Government and it is expected to give thrust to the Indo-Pacific centred policymaking.
- The Indo-Pacific Wing integrates the Indian Ocean Rim Association (IORA), ASEAN region and the Quad.
- The Indo-Pacific diplomacy of India has repeatedly placed ASEAN at the centre of its policy.
- Even the US has recently renamed its Pacific Command to the Indo-Pacific Command as it seeks to give teeth to its Indo-Pacific policy.

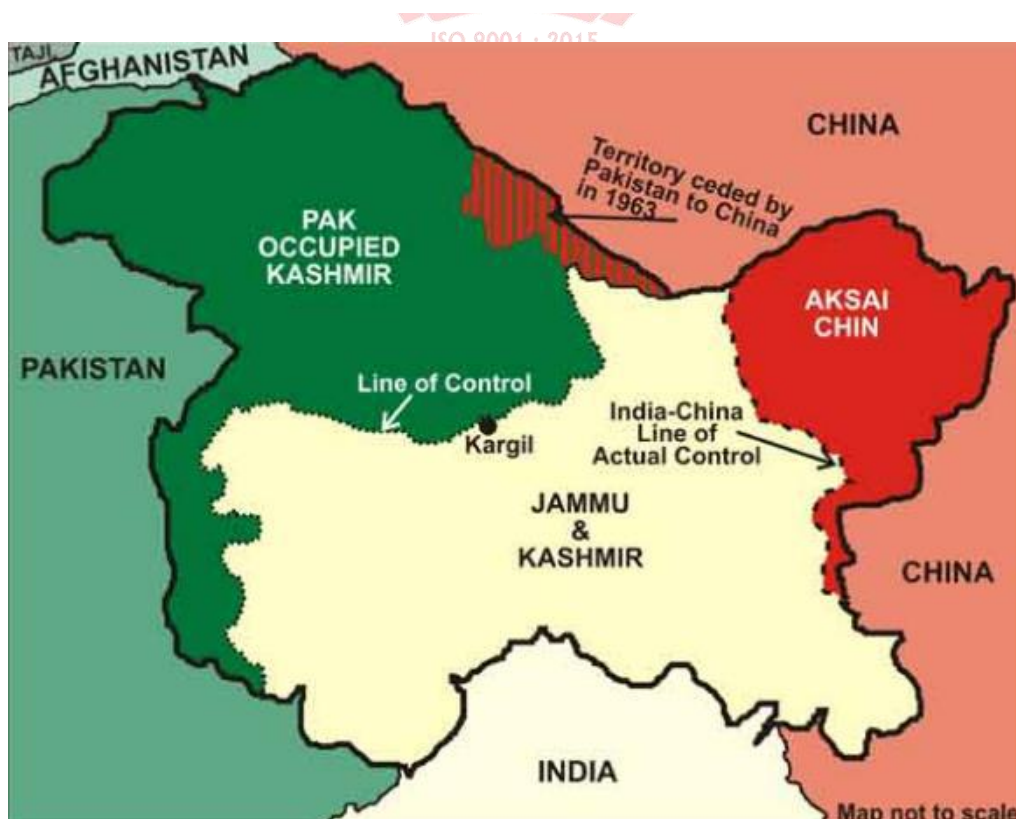
## SUSPENSION OF LOC TRADE BETWEEN J&K AND POJK

### GS 3: IR - Bilateral Relations

#### Prelims level: LoC

#### Why in News?

- India suspended Line of Control (LoC) trade between Jammu & Kashmir and Pakistan-occupied Jammu & Kashmir with effect from 19-04-2019 after receiving reports that the cross-LoC trade routes were being misused by Pakistan-based elements for funnelling illegal weapons, narcotics, fake currency, and so on.



## Background:

- The LoC trade was meant to facilitate exchange of goods of common use between local populations across the LoC in Jammu & Kashmir.
- The trade is allowed through two Trade Facilitation Centres located at Salamabad, Uri, District Baramulla, and Chakkan-da-Bagh, District Poonch. The trade takes place four days a week. The trade is based on barter system and zero duty basis.
- But unscrupulous and anti-national elements are using the route as a conduit for Hawala money, drugs and weapons, under the garb of this trade.
- According to ongoing investigations of certain cases by the National Investigation Agency (NIA), it has been brought out that a significant number of trading concerns engaged in LoC trade are being operated by persons closely associated with banned terrorist organizations involved in fuelling terrorism and separatism.
- Investigations have further revealed that some individuals, who have crossed over to Pakistan and joined militant organizations have opened trading firms in Pakistan. These trading firms are under the control of militant organizations and are engaged in LoC trade.
- After the Pulwama incident, Government of India has withdrawn the most-favoured nation (MFN) status to Pakistan. Inputs have also been received that in order to evade the consequent higher duty, LoC trade is likely to be misused to a much larger extent.
- So Government of India decided to suspend the LoC trade at Salamabad and Chakkan-da-Bagh in Jammu and Kashmir with immediate effect. and the issue of reopening of LoC trade will be revisited thereafter.

## Indian Navy-Vietnam Peoples' Navy Bilateral Exercise

### GS 3: IR

#### Prelims level: Exercise particulars

#### Why in News?

- In the backdrop of the growing maritime engagement between India and Vietnam, the Indian Navy undertook the second edition of the bilateral maritime exercise between Indian Navy and Vietnam Peoples' Navy at/ off Cam Ranh Bay, Vietnam.

#### Highlights:

- The maiden edition of the bilateral maritime exercise was conducted at Da Nang (from 21 to 26 May 18), Vietnam.

- The exercise was undertaken as a part of the ongoing Overseas Deployment of Eastern Fleet ships to South East Asian countries.
- The Indian Navy and the Vietnam Peoples' Navy have traditionally shared good relations. Conduct of the bilateral exercise on an annual basis would give a further fillip to the existing strong bilateral relationship between the two countries, which since Sep 16 have been elevated to the level of 'Comprehensive Strategic Partnership' after the visit of the Hon'ble PM to Vietnam. The Navy to Navy cooperation involves a Composite Training Programme in the fields of Submarine, Aviation and Dockyard training.
- The two countries have also signed an agreement to exchange White Shipping Information and have a running 'Information Sharing' programme.
- The Indian Navy-Vietnam Peoples' Navy Bilateral Exercise is a significant step in further strengthening mutual confidence and interoperability as well as sharing best practices between the Indian and the Vietnam Peoples' Navies.

### **EXERCISE 'SEA VIGIL'**

#### **GS 3: IR**

#### **Prelims level: Exercise particulars**

#### **Why in News?**

- The debrief of Exercise Sea Vigil was held on 16 Apr 19.

#### **Highlights:**

- The maiden national level Coastal Defence Exercise SEA VIGIL was conducted by Indian Navy from 22-23 Jan 19.
- The exercise witnessed the simultaneous activation of the coastal security apparatus across the country involving maritime stakeholders at the Centre and all the 13 Coastal States and Union Territories.
- All relevant agencies from the field units in different states participated through Tele-Conference. The Chairperson complimented the strong interagency coordination and interoperability achieved during the exercise and reiterated the need for flexibility and agility to deal with security challenges. Key takeaways from the exercise debrief were deliberated and disseminated to all for further action/ follow-up. The feedback from the exercise and the deliberations would be presented at the next meeting of the National Committee for Strengthening Maritime and Coastal Security (NCSMCS).

## BBIN INITIATIVE

### GS 3: IR -Bilateral

#### Prelims level: BBIN Initiative

#### Why in News?

- The Bhutan government will place the bill for ratification of Bangladesh-Bhutan-India-Nepal (BBIN) initiative for road and rail connectivity at its upper senate.
- The Motor Vehicle Agreement of BBIN countries was signed in 2015 by the four member countries.
- Bangladesh, India and Nepal have implemented the agreement but Bhutan is yet to accord its ratification of the agreement.

#### BBIN Initiative:

- Bangladesh, Bhutan, India, and Nepal (BBIN) signed a Motor Vehicles Agreement for the Regulation of Passenger, Personal and Cargo Vehicular Traffic.
- Aside from facilitating the cross-border movement of passengers and goods, the agreement is expected to “promote safe, economical efficient and environmentally sound road transport in the sub-region
- It will help to create “an institutional mechanism for regional integration.”
- It may increase trade within the South Asia region by nearly 60% and trade by the region with outside partners by more than 30% over current levels.
- But nearly two years after ministers from Bhutan, Bangladesh, India and Nepal signed the BBIN MVA in Thimphu; the Bhutanese government withdrew from the agreement followed Bhutan’s domestic resistance to ratify the agreement.

## NEPAL LAUNCHES ITS FIRST SATELLITE

### GS 3: IR - Events

#### Why in News?

- Nepal has successfully launched its first satellite into space from Virginia in United States.

#### Highlights:

- Developed by the Nepalese scientists
- NepaliSat-1 satellite has been developed by the two Nepali scientists, Aabhas Maskey and Hariram Shrestha under the BIRDS project of the Kyushu Institute of Technology, Japan.

- NAST initiated the launch of the country's own satellite under the BIRDS project of the Japanese Kyushu Institute of Technology.
- The BIRDS project has been designed in association with the United Nations and aims at helping countries launch their first satellite. NepaliSat-1 is a low orbit satellite which will be in the 400-km distance from the Earth's surface. It will be stationed at the International Space Station (ISS) for a month and then it will be sent to orbit the earth. The satellite will take photographs on a regular basis to gather geographical information of Nepal.

## **LEARNING COIN**

### **GS 3: International Events**

#### **Prelims level: Learning Coin**

#### **Why in News?**

- International Monetary Fund (IMF) and the World Bank have together launched a private blockchain with a pseudo-token- "Learning Coin".

#### **Highlights:**

- The new token, called "Learning Coin" is accessible within the IMF and World Bank.
- The main purpose of this token is to teach relevant individuals within the organizations about blockchain.
- The coin has no real value, hence has the description of a pseudo-token.
- Staff members who pass educational milestones will receive the tokens which can then be redeemed for certain rewards.

#### **World Bank:**

- The World Bank was established in 1944.
- The World Bank is headquartered in Washington DC, USA.
- David Malpass is the current president of the World Bank.

## **INDIA AND FRANCE TO CONDUCT LARGEST NAVAL EXERCISE "VARUNA"**

### **GS 3: IR**

#### **Prelims level: Exercise VARUNA**

#### **Why in News?**

- India and France are all set to hold their largest-ever naval exercise 'Varuna' with aircraft carriers, destroyers, submarines and fighters early May as part of their expanding strategic partnership.

## Highlights:

- The exercise that has been christened 'Varuna' will take place off Goa and Karwar from 1st May 2019.
- Conducting the Varuna exercise was reiterated in the Joint Statement made by the Prime Minister of India and the President of France, on the 10th of March 2018.
- The two countries will be deploying their aircraft carriers INS Vikramaditya and FNS Charles de Gaulle with their Mig-29K and Rafale-M naval fighter jets.
- The Indian participation will also include the destroyer INS Mumbai, frigate INS Trikand with their integral helicopters, IN submarine Kalvari, P8-I aircrafts and Dornier Maritime Patrol aircraft.
- This comes after the successful operationalisation of the logistics support agreement between India and France under which Indian warships can access the French bases like Reunion Islands and in Djibouti.
- Under the same pact, French anti-aircraft destroyer FNS Cassard had docked at the Mumbai naval port in January 2019.
- This was second such logistics support agreement signed by India after the one signed by it with United States (US) in 2016.

## THE FACE OF DISASTERS 2019 REPORT

### GS 3: Disaster Management

#### Prelims & Mains level: The Face of Disasters 2019 Report

#### Why in News?

- The Face of Disasters 2019 report was recently published by Sustainable Environment and Ecological Development Society (SEEDS).

## Highlights:

- The 'Face of Disasters 2019' report released by SEEDS as part of its 25th anniversary, analyses past trends, looking at disasters from a broader perspective to capture their varied facets. The report talks about the need to look at disaster vulnerabilities that lie under the radar, waiting to strike. Eight key areas have emerged that will be critical to consider as we look ahead: Water and the changing nature of disaster risk: A 'new normal' of rainfall variability is bringing challenges of too much and too little water, often in parallel. No disaster is 'natural': Risks lurking under the radar slip through the cracks because they don't meet the idea of a 'natural disaster'.



- The silent events: The disasters that go unseen leave those affected at even greater risk.
- Land becomes water (and water becomes land): Changes to the coastline are already affecting livelihood sources and will be hotspots for vulnerability in the future.
- The complexity of disaster impact: Beyond official 'damages', the long-term and uncaptured disaster impacts have life-changing consequences for affected communities.
- The urban imperative: Risk is rapidly urbanising and will affect everyone.
- Transformations in the third pole: Himalayan glaciers are melting, with serious implications for the whole region. Planning for what you can't see: Earthquake risk is looming large under the radar, but are we prepared?

### Significance of the report:

- Analysis of past trends shows us that 2019 will see unusual flooding, as well as heatwaves and drought that are already ongoing. The complexity of disasters today requires a proactive and multi-pronged approach.
- A single mega-disaster can wipe out hard-won development gains and recurrent small-scale stresses keep vulnerable families in a cycle of poverty.
- While this multiple event pattern is repeated every year, only a few really capture the public attention. Other risks continue to intensify under the radar.

### Way Forward:

- Current trends are reinforcing that disasters have multiple facets and complexities.
- In 2018, India witnessed nearly every type of natural hazard, except a major earthquake and related events. Floods, droughts, heat and cold waves, lightning strikes, cyclones and even hailstorms, a wide range of disasters impacted most of the country.
- This poses some critical questions and issues and also points to risks that lie ahead. At the core is the idea that disasters cannot be seen in isolation anymore.
- There is a clear need for comprehensive understanding of risks, and hyper-localised plans and allocation of resources to reduce them.

### Sustainable Environment and Ecological Development Society (SEEDS):

- SEEDS, a non-profit voluntary organization, is a collective endeavor of young professionals drawn from development related fields.
- It originated as an informal group of likeminded persons, getting together for the purpose of creative research projects of academic interest.
- The group was later formalized in early 1994 and has been active in the field ever since.

- It is involved in research activities in Community Development, Disaster Management, Environmental Planning, Transport Planning, and Urban and Regional Planning.
- Activities are carried out on behalf of government, semi – government and international development agencies. Independent programs on vital issues are also taken up.

## **NAVAL COMMANDERS' CONFERENCE 2019**

### **GS 3: Internal Security**

#### **Why in News?**

- The first edition of Naval Commanders' Conference of 2019 is scheduled at New Delhi (from 23 to 25 April 2019).

#### **Highlights:**

- The conference is the apex forum within the Service for interaction between the Naval Commanders.
- The Chief of the Naval Staff, with the Commanders-in-Chief, will review major operational, material, logistics, HR, training and administrative activities undertaken during the previous six months and deliberate upon the course to be steered in the ensuing six months.
- The Conference assumes greater significance in the backdrop of Pulwama associated events that have brought country's defence under sharper focus and will provide the higher naval leadership with a forum to discuss the emerging challenges in the maritime domain and fine tune the strategies for responding to the evolving geo-strategic environment.
- Interaction with Chiefs of Indian Army and Indian Air Force during the conference would be utilised to analyse the operational environment, deliberate on Tri-Service synergy and readiness to deter and neutralise threats aimed at the country's sovereignty and territorial integrity.
- The themes of 'Functional Reorganisation of Indian Navy towards improving Operational Efficiency' and 'Optimal Manning' will form the core of discussions towards finalising long term road map for the IN.
- Discussions are planned on the acquisition of new capabilities, harnessing niche technologies like 'Big Data Analytics' and 'Artificial Intelligence' for solutions in the

domains of naval combat, the convergence of networks/ information, logistics, administration and equipment health monitoring for sustained operations.

- In keeping with the expectation of IN being the Net Security Provider in the IOR and first responder to any crisis, the forum will also deliberate upon the lessons learnt from the recently concluded HADR operations by the IN and various other maritime security initiatives such as the IFC-IOR.

## **IN-VPM BILAT EXERCISE**

### **GS 3:IR**

#### **Why in News?**

- Indian Navy undertook the second edition of the bilateral maritime exercise between Indian Navy and Vietnam Peoples' Navy at/ off Cam Ranh Bay, Vietnam from 13 to 16 Apr 19. The maiden edition was conducted from 21 to 26 May 18 at Da Nang, Vietnam.

#### **IN-VPM BILAT Ex:**

- IN-VPM BILAT Ex is the bilateral maritime exercise between India and Vietnam
- The exercise was undertaken as a part of the ongoing Overseas Deployment of Eastern Fleet ships to South East Asian countries.
- The Indian Navy and the Vietnam Peoples' Navy have traditionally shared good relations. Conduct of the bilateral exercise on an annual basis would give a further fillip to the existing strong bilateral relation between the two countries, which since Sep 16 have been elevated to the level of 'Comprehensive Strategic Partnership' after the visit of the Hon'ble PM to Vietnam.
- The Navy to Navy cooperation involves a Composite Training Programme in the fields of Submarine, Aviation and Dockyard training. The two countries have also signed an agreement to exchange White Shipping Information and have a running 'Information Sharing' programme.
- The Indian Navy-Vietnam Peoples' Navy Bilateral Exercise is a significant step in further strengthening mutual confidence and inter-operability as well as sharing best practices between the Indian and the Vietnam Peoples' Navies.

## INTERNATIONAL FLEET REVIEW

### GS 3: IR

#### Why in News?

- IN Ships Kolkata and Shakti are scheduled to arrive Qingdao, China on 21 Apr 19 to participate in the International Fleet Review as part of 70TH Anniversary celebrations of PLA (Navy).

#### International Fleet Review:

- International Fleet Review (IFR) is a parade of naval ships, aircraft and submarines, and is organised by nations to promote goodwill, strengthen cooperation and showcase their organisational capabilities.
- IFR also serves as an ideal platform for world's navies to showcase their prowess and indigenous ship designing and ship building capabilities in a global/ international arena.
- The second IFR conducted by India off Visakhapatnam in Feb 2016 saw overwhelming participation of 50 navies with nearly 100 warships.
- The Indian Navy would be represented in the IFR at Qingdao by indigenously built stealth guided missile destroyer INS Kolkata and fleet support ship INS Shakti.

### 49<sup>th</sup> ANNUAL EARTH DAY OBSERVED

### GS 3: International Events

#### Prelims level: Earth Day

#### Why in News?

- Earth Day 2019 observed on 22nd April 2019 marks the 49th annual Earth Day.
- Earth Day 2019 is observed with the theme '**Protect Our Species**'.

#### Highlights:

- The theme 'Protect Our Species' aims to highlight that nature's gifts to our planet are the millions of species. But unfortunately, human beings have irrevocably upset the balance of nature. As a result, the world is facing the greatest rate of extinction and the rapid extinction of species in our world today is the result of human activity.
- The Earth Day 2019 through the theme 'Protect our Species' urges people to:
  - ✓ Educate and raise awareness about the accelerating rate of extinction of millions of species and the causes and consequences of this phenomenon.
  - ✓ Achieve major policy victories that protect broad groups of species as well as individual species and their habitats.

- ✓ Build and activate a global movement that embraces nature and its values.
- ✓ Encourage individual actions such as adopting a plant-based diet and stopping pesticide and herbicide use.

### Earth Day:

- Earth Day was formally proposed by John McConnell at the UNESCO conference on Environment in 1969.
- Later in 1971, a proclamation was signed to observe international Earth Day annually on the Vernal Equinox by UN Secretary-General U Thant.
- Since then, April 22nd is celebrated every year in more than 193 countries and the celebrations are coordinated globally by the Earth Day Network.
- Earth Day celebrations are a way to remind humans of the environmental deterioration caused by them and advise them to turn off the electronic devices that are not in use or taking public transport to reduce the emission levels.
- It recognises that Earth and its ecosystems provide its inhabitants with life and sustenance.

## INDIAN COAST GUARD VESSEL C-441

### GS 3: Internal Security

#### Why in News?

- The Indian Coast Guard commissioned its latest acquisition, an interceptor vessel named C-441, at a ceremony held at the Vizhinjam harbour

#### Highlights:

- ICGS C-441 is the seventh interceptor vessel amongst the series designed and built indigenously by L & T Ltd., Surat
- The 27.8-metre-long vessel displaces 106 tonnes and has a maximum speed of 45 knots (83 km/hr).
- It is equipped with twin diesel engines and water jet propulsion.
- It also has the capability to undertake multifarious tasks such as close coast surveillance, interdiction, search and rescue and rendering assistance to boats and crafts in distress at sea.
- The ship is fitted with state-of-the art communication, navigational equipment and with light, medium and heavy automatic machine gun onboard as main armament.

## INTERNATIONAL SOLAR ALLIANCE FUNDING

### GS 3: IR

#### Why in News?

- The International Solar Alliance, a global body for cooperation among solar resource-rich countries, will no longer be classified as a foreign source of funding for non-governmental organisations in India.

#### Highlights:

- The decision was taken as part of India's efforts to assist and help achieve the goal of increasing the use of solar energy.
- The United Nations, Intergovernmental Panel on Climate Change, International Labour Organisation, and International Monetary Fund are among 109 organisations exempted by India from foreign funding licences.
- NGOs seeking foreign funding are required to obtain licences from the Union home ministry and are required to state the purpose of the funds being brought into the country.

#### New order:

- The Central government, exercising the power conferred by the Foreign Contribution [Regulation] Act, 2010, specified that the International Solar Alliance shall not be treated as 'foreign source'.
- The funds received by NGOs and other entities from the ISA will not be governed by the FCRA.

#### ISA:

- The International Solar Alliance (ISA) is an alliance of more than 122 countries initiated by India, most of them being sunshine countries, which lie either completely or partly between the Tropic of Cancer and the Tropic of Capricorn. now extended to all members of UN.
- The primary objective of the alliance is to work for efficient exploitation of solar energy to reduce dependence on fossil fuels.
- The alliance is a treaty-based inter-governmental organization.
- It is headquartered in Gurugram, India
- The focus is on solar power utilization.

## SPECIAL 301 REPORT

### GS 3: IR

#### Why in News?

- India continues to remain on the United States (US) 'Priority Watch List' for alleged violations of intellectual property rights (IPR) and for posing new challenges that have negatively affected American right holders over the past year.

#### Highlights:

- The Office of the United States Trade Representative released its annual Special 301 Report, in which it placed 36 countries on the Priority Watch List.
- These countries will be the subject of increased bilateral engagement with the USTR to address Intellectual Property (IP) concerns.
- USA places trading partners that currently present the most significant concerns regarding IP rights on the Priority Watch List or Watch List. The "Priority Watch List" classification indicates that problems exist in that country involving its IP protection, enforcement, or market access.

#### Consequences of the list:

- U.S. government may initiate dispute settlement proceedings at the World Trade Organization (WTO) or other relevant trade agreement.
- The U.S. government can also eliminate tariff preferences unilaterally granted, such as the Generalized System of Preferences (GSP).

## THE GLOBAL FOREST WATCH (GFW)

### GS 3: Environment | Conservation, Environmental Pollution & Degradation

#### Why in News?

- The Global Forest Watch (GFW) is released by World Resources Institute (WRI) which reveals that India has lost over 1.6 million hectare of tree cover between 2001 and 2018, about four times the geographical area of Goa. GFW is an open source web application to monitor global forests in near real time.

#### Key findings:

- In India, five north-eastern states – Nagaland, Tripura, Meghalaya, Mizoram and Manipur – were responsible for over 50% of all tree cover loss in the same period.
- The main reason for loss of tree cover in the north-eastern states is diversion of forest land and climate change.

- The loss of tree cover contributed to 172 MT of carbon emissions in India during this period.
- The analysis reveals the total tree cover which used to be 12% of the country's geographical area in 2000 reduced to 8.9% in 2010.

### World Resources Institute:

- WRI is a global research organization that spans more than 50 countries and focuses on six critical issues at the intersection of environment and development: climate, energy, food, forests, water, and cities and transport.
- It was established in 1982. Headquartered in Washington, US.

## GLOBAL FOOD POLICY REPORT

### GS 3: IR

#### Why in News?

- Global Food Policy Report released by the Washington DC-based International Food Policy Research Institute (IFPRI).
- **Theme:** Rural revitalization is the theme for 2019.

#### Highlights:

- Marked by the deepening cycle of hunger and malnutrition, poverty, limited economic opportunities, and environmental degradation, rural areas continue to be in a state of crisis in many parts of the world. This crisis can slow the progress toward achieving the Sustainable Development Goals and global climate targets.
- Rural population account for 45.3% of the world's total population and at least 70% of the world's population remains extremely poor.
- The rural population suffers from rapid population growth rates, inadequate job and enterprise creation, poor infrastructure, scarce financial services.
- In addition, rural communities bear the brunt of climate change impacts.
- Nearly 50% of rural youth all over the world do not have any formal job – they are either unemployed or under-employed.
- The Changing consumption patterns—driven largely by urbanization, demographic transitions, increasing income, and growing integration of food supply chains and food systems in India – offer new opportunities for entrepreneurship and employment in rural areas.



## Measures to boost rural economy:

- The rural transformation and revitalisation have been pre-eminent goal of India's development efforts since independence.
- India has unveiled several measures to boost rural economy and improve rural livelihoods by enhancing access to basic services, increasing investments in agriculture and rural infrastructure.
- Recent programmes include the minimum support prices for major crops equal to at least 1.5 times their production costs.

## Challenges:

- Despite progress, India is continuously facing the challenge of climate change, risks on land degradation, deterioration of soil quality, and loss of biodiversity has potentially slowed the rural transformation.

**Way forward:** Changing consumption patterns – driven largely by urbanisation, demographic transitions, increasing income, and growing integration of food supply chains and food systems in India – offer new opportunities for entrepreneurship and employment in rural areas.

## BCIM ECONOMIC CORRIDOR

### GS 3: IR

#### Prelims level: BCIM Economic corridor

### Why in News?

- China has said that the Bangladesh-China-India-Myanmar (BCIM) Corridor will not be a part of the Belt & Road Initiative.

### BCIM Economic Corridor:

- The BCIM economic corridor aims to connect Kolkata with Kunming, capital of the Yunnan province.
- It envisages formation of a thriving economic belt, focusing on cross-border transport, energy and telecommunication networks.

### Significance of BCIM:

- India will benefit in terms of the development of the Kolkata port and the opening up of the economic potential of the northeast states.
- It offers India an opportunity to create its own win-win relationship with China.
- It can use the economic corridor for negotiating downstream industries to be located within India.

- With natural gas reserves of about 200 trillion cubic feet, the largest in the Asia-Pacific, Bangladesh could become one of the major energy exporting countries.
- Promotes tourism
- It is pivotal for India's 'Act East' Policy.
- Access to several booming markets in Southeast Asia, improvement of transport infrastructure and setting up of industrial zones.
- It would facilitate cross-border movement of people and goods, reduce overland trade bottlenecks, ensure access and increase volume of trade
- Reduce transaction costs, enhance trade and investment and poverty alleviation in the region.

### **Belt and Road Initiative (BRI):**

- China's Belt and Road Initiative (BRI) is an ambitious programme to connect Asia with Africa and Europe via land and maritime networks along six corridors with the aim of improving regional integration, increasing trade and stimulating economic growth.
- The BRI comprises a Silk Road Economic Belt – a trans-continental passage that links China with south east Asia, south Asia, Central Asia, Russia and Europe by land – and a 21st century Maritime Silk Road, a sea route connecting China's coastal regions with south east and south Asia, the South Pacific, the Middle East and Eastern Africa, all the way to Europe.
- The programme is expected to involve over US\$1 trillion in investments, largely in infrastructure development for ports, roads, railways and airports, as well as power plants and telecommunications networks.
- The BRI's geographical scope is constantly expanding. So far it covers over 70 countries, accounting for about 65 per cent of the world's population and around one-third of the world's Gross Domestic Product (GDP).
- The initiative defines five major priorities:
  - ✓ Policy coordination;
  - ✓ Infrastructure connectivity;
  - ✓ Unimpeded trade;
  - ✓ Financial integration and
  - ✓ Connecting people.