



AN INITIATIVE BY
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1. INDIAN SOCIETY & POLITY

PUBLIC PREMISES (EVICTION OF UNAUTHORIZED OCCUPANTS)

AMENDMENT BILL, 2019

Why in News?

- ▶ The Public Premises (Eviction of Unauthorized Occupants) Amendment Bill, 2019 that will facilitate smooth and speedy eviction of unauthorised occupants from government residential accommodations, has come into effect. The Bill was passed by the Parliament during the last Budget session.

Highlights:

- ▶ The Public Premises (Eviction of Unauthorized Occupants) Amendment Bill, 2019 would ensure retrieval of the residential government accommodations from unauthorised occupants without requiring elaborate procedures under sections 4 and 5 of the Act.
- ▶ The step would increase the availability of government residential accommodations and reduce the waiting period for eligible persons.
- ▶ The government provides residential accommodation to those in service (employees, Members of Parliament and others) or till the term of their office on a license basis.
- ▶ The act empowers the Estate Officers to evict such unauthorized occupants in a time-bound manner.
- ▶ The bill lays down the provision for eviction from the residential accommodation. Under it, the estate officer, who is an officer of the central government, is required to issue a written notice to a person who is in unauthorised occupation of a government residential accommodation.
- ▶ The notice will require the individual to cite the reason as to why an eviction order should not be made against him, within three working days. The written notice must be fixed to a conspicuous part of the accommodation, in a prescribed manner.

BRONZE IDOL OF BUDDHA SEATED IN THE BHUMISPARSHA MUDRA

Why in News?

- ▶ Finance Minister Ms. Nirmala Sitharaman handed over an antique bronze idol of Buddha to the Minister of State for Culture & Tourism Mr. Prahlad Singh Patel on 17th September at New Delhi.

Highlights:

- ▶ The idol had been stolen from the Nalanda Museum of ASI (Archaeological Survey of India) in 1961 and had resurfaced at an auction in Maastricht in The Netherlands (organized by a London-based dealer) in 2018.

- ▶ On receiving this information, the Directorate of Revenue Intelligence (DRI) officer in London contacted the Art & Antique Unit of the Metropolitan Police (UK).
- ▶ The ASI also certified that the statue was stolen from the Archaeological Museum in Nalanda.
- ▶ The International Council of Museums also inspected the image and confirmed that it is the same as the one stolen from Nalanda in 1961.
- ▶ The India Pride Project, an online volunteer group of art enthusiasts, played an active role in the identification of the idol.
- ▶ British authorities handed over the idol to the Indian High Commissioner (UK) on India's Indebuddha in Bhumisparsha Mudrapendence Day in 2018.
- ▶ The stolen Buddha statue is documented as "Seated Buddha in Bhumisparsha Mudra" (height 6.5 inches, circa 12th century CE).

Bhumisparsha Mudra:

- ▶ This is a common pose found in idols of the Buddha in many countries.
- ▶ This means: 'Touching the Earth'.
- ▶ In this posture, the right-hand points downwards towards the earth, hanging over the knee and palm facing inwards. The left-hand rests on the lap with the palm upright.
- ▶ Significance of the pose: This pose represents the moment when the Buddha attained enlightenment. It stands for 'Calling the Earth to Witness the Truth'.

KEELADI FINDINGS TRACEABLE TO 6th CENTURY BCE: REPORT

Why in News?

- ▶ The report titled, 'Keeladi-An Urban Settlement of Sangam Age on the Banks of River Vaigai', was published by the Tamil Nadu Archaeology Department (TNAD).
- ▶ Three excavations were undertaken by the Archaeological Survey of India, the fourth excavation was undertaken by the TNAD.
- ▶ The fifth excavation by ASI is underway.

Significance:

- ▶ The study highlights a possible link between the scripts of the Indus Valley Civilisation and Tamil Brahmi, which is the precursor to modern Tamil.
- ▶ Another major discovery is that there was an urban civilisation in Tamil Nadu that was contemporary to the Gangetic plain civilisation.

Highlights:

- ▶ The TNAD stated that the cultural deposits unearthed at Keeladi date back to a period between 6th century BCE and 1st century CE.
- ▶ The new findings place Keeladi artefacts about 300 years earlier than previously believed 3rd century BCE.

- ▶ The results suggest that the second urbanisation of Vaigai plains happened in Tamil Nadu around 6th century BCE. The first urbanisation being credited to the Indus plains.
- ▶ The recent scientific dates obtained for Keeladi findings push back the date of Tamil-Brahmi script to another century, i.e., 6th century BCE.
- ▶ Fifty-six Tamil-Brahmi inscribed potsherds were recovered.
- ▶ The report states that the art of writing was attained as early as 6th Century BCE. The finding was based on potsherds which had names of people – like Aadhan and Kudhiranaadhan – written in Tamil-Brahmi script.
- ▶ Skeletal fragments studied, were identified as cow/ox, buffalo, sheep, goat, nilgai, blackbuck, wild boar and peacock, suggesting that the society in Keeladi had used animals predominantly for agricultural purposes.
- ▶ Recovery of 10 spindle whorls, 20 sharply pinpointed bone tip tools used for design creations, hanging stones of the yarn, terracotta spheres, copper needle and earthen vessels to hold liquid provide evidence to the various stages of weaving industry from spinning, yarning, looming and weaving and later for dyeing.

INTERNATIONAL SIGN LANGUAGE DAY

Why in News?

- ▶ The Indian Sign Language Research and Training Centre celebrated Sign Language Day on 23rd September.

International Sign Language Day:

- ▶ The UN declared 23rd September as International Sign Language Day.
- ▶ The day was first observed in 2017. This date was selected because this was the date when the World Federation of the Deaf was established in 1951.
- ▶ The theme for 2019 is Sign Language-Rights for all.
- ▶ The objective of celebrating this day is enhancing the awareness of sign language and making the reach of sign language greater.

Indian Sign Language Research and Training Centre (ISLRTC):

- ▶ It is an autonomous body under the Department of Empowerment of Persons with Disabilities, Ministry of Social Justice and Empowerment.
- ▶ The Centre was established in 2015.
- ▶ The Centre carries out many activities for promoting the use of Indian Sign Language as the educational mode for deaf students at primary, secondary and higher education levels.
- ▶ It conducts diploma courses in Indian Sign Language Interpretation.
- ▶ It is located in New Delhi.

AADI MAHOTSAV

Why in News?

- ▶ The Aadi Mahotsav is a national tribal festival that showcases tribal art, crafts, culture, commerce and cuisine in a holistic manner is being held in Noida.

Aadi Mahotsav:

- ▶ It is organised by 'TRIBES India', which is a GOI initiative under the Ministry of Tribal Affairs for the welfare of over 700 Indian tribes.
- ▶ The scheme of the festival is A celebration of the spirit of Tribal Culture, Craft, Cuisine and Commerce.
- ▶ The chief objective behind holding this event is to provide an opportunity to tribal artisans to interact directly with art & craft lovers while getting their feedback about their taste and preferences.
- ▶ This will also help the artisans improve their creations.
- ▶ It is also an attempt to preserve the art and culture of the tribal community of India.
- ▶ It is an exhibition-cum-sale where more than 200 tribal artisans and artists from all over India are showcasing their skills.
- ▶ For the first time, the tribal artisans will be accepting payment through major credit/debit cards for which Point of Sale (POS) machines have been provided in each stall.
- ▶ A special training was conducted by the State Bank of India for smooth operations in this regard. TRIBES India has signed the MoUs with Amazon, Snapdeal, Flipkart, PayTM and GEM, a government of India portal for e-commerce of the tribal products.

2. GOVERNANCE

AUTOMATIC EXCHANGE OF INFORMATION (AEOI) REGIME

Why in News?

- ▶ Banking details of Indians with accounts in Switzerland will be available to tax authorities as the automatic exchange of information regime kicks off between the two countries.
- ▶ In 2016, India and Switzerland had signed an information-sharing deal on bank accounts, which was to come in effect from September 2019.
- ▶ Both countries intend to start collecting data in accordance with the global AEOI standard in 2018 and to exchange it from 2019 onwards.

AEOI:

- ▶ This automatic exchange of information (AEOI) is to be carried out under the Common Reporting Standard (CRS), the global reporting standard for such exchange of information.
- ▶ It takes care of aspects such as confidentiality rules and data safeguards.

- ▶ The CRS has been developed by the Organisation for Economic Cooperation and Development (OECD).
- ▶ Under the agreement, India will not receive information on bank accounts prior to 2018.
- ▶ Under the agreement both jurisdictions will inform each other of any relevant developments in respect to the implementation of the OECD Common Reporting Standard in their respective domestic laws.
- ▶ Each jurisdiction confirms that it has informed the other jurisdiction about the modalities made available to persons making a voluntary disclosure of their financial assets.

Benefits of the Regime:

- ▶ In 2018, data from Zurich-based Swiss National Bank (SNB) had shown that after declining for three years, money parked by Indians in Swiss Banks rose 50 per cent to CHF (Swiss Franc) 1.02 billion (Rs 7,000 crore) in 2017 over the previous year.
- ▶ The step is likely to shed more light on the wealth Indians have stashed away in Swiss bank accounts, for so long governed by strict local rules of secrecy.
- ▶ It is a significant step in the government's fight against black money and the era of "Swiss bank secrecy" will finally be over.

ELECTORS VERIFICATION PROGRAMME

Electors Verification Programme:

- ▶ The main aim of the programme is to improve the health of Electoral rolls and to provide better electoral services to citizens and increase the level of Communication between voters and the Commission.
- ▶ The program has been launched at all Levels starting from the State/UT Headquarters by 32 CEOs, District level by about 700 DEOs and at around 1 million Polling Stations by BLOs/EROs and will continue from September 1, 2019 to October 15, 2019.
- ▶ The voters can log on to NVSP portal (nvsp.in) or Voter Helpline App or Common Service Centres or any nearby voter facilitation centre to avail the following facilities.
- ▶ Verification and corrections of the existing details
- ▶ Authentication of entry by furnishing scanned/DigiLocker copy of one of the following documents:(i) Indian Passport (ii) Driving License (iii) Aadhaar Card (iv) Ration Card (v) identity card for Government/Semi Government Officials (vi) Bank Passbooks (vii) Farmer's Identity Card (viii) PAN Card (ix) Smart Card issued by RGI (x) Latest bill for water/electricity/telephone/gas connection.
- ▶ Furnishing details of family members and verifying their entries too
- ▶ Updating details of family members already enrolled as voters but permanently shifted or expired

- ▶ Furnishing details of eligible un-enrolled family members (born on or before 01.01.2001) and prospective electors born between (02.01.2002 till 01.01.2003) who are residing with the elector.
- ▶ Furnishing GIS Coordinates of House (through Mobile App) to avail better electoral Services
- ▶ Feedback regarding existing Polling Stations and suggestions on alternate PS, if any

Institutions of Eminence (IoE) Scheme

Why in News?

- ▶ The Ministry of HRD has taken various steps to implement the scheme of Institutions of Eminence (IoEs).

Scheme & Objective:

- ▶ Institutions of Eminence scheme has been launched in order to implement the commitment of the Government to empower the Higher Educational Institutions and to help them become world-class teaching and research institutions.
 1. To provide for higher education leading to excellence and innovations in such branches of knowledge as may be deemed fit at post-graduate, graduate and research degree levels and award degrees, diplomas and other academic distinction
 2. To engage in areas of specialization to make distinctive contributions to the objectives of the university education system wherein the academic engagement is clearly distinguishable from programmes of an ordinary nature.
 3. To develop the capacity of the students and the researchers to compete in the global tertiary education marketplace through the acquisition and creation of advanced knowledge in those areas
 4. To provide for high-quality teaching and research and for the advancement of knowledge and its dissemination through various research programmes undertaken in-house by substantial number of full-time faculty and research scholars in diverse disciplines
 5. To pay special attention to teaching and research in unique and emerging areas of knowledge, including interdisciplinary areas, which are regarded as important for strategic needs of the country but are not being pursued by conventional or existing institutions so far, and award degrees, diplomas and other academic distinctions.
 6. to aim to be rated internationally for its teaching and research as a top hundred Institution in the world over time.

UJJWALA YOJANA ACHIEVES TARGET

Why in News?

- ▶ The PM addressed a state-level Mahila Saksham Melava or Empowered Women's Meet of Self Help Groups, organized by Maharashtra State Rural Livelihood Mission (UMED), in Aurangabad. Marking the ahead-of-date achievement of 8 crore LPG connections under Pradhan Mantri Ujjwala Yojana, the PM distributed LPG connections to five beneficiaries.
- ▶ The PM said that Jal Jeevan Mission has been launched in order to free women from the trouble of having to toil hard to fetch water.

Pradhan Mantri Ujjwala Yojana:

- ▶ The PMUY is a scheme to provide LPG (liquid petroleum gas) to households below the poverty line. This is to have universal coverage of cooking gas in the country. The chief aim of this scheme to protect the health of the women and children in homes where unclean cooking fuels are used.
- ▶ About 10 crore households in the country use firewood, dung cakes, coal, etc. as their cooking fuel. The smoke emanating from such stoves are alarming and they cause severe health problems for the people living in such houses, especially the women who use them to cook food. As per WHO, about 5 lakh fatalities in India occur because of unclean cooking fuel.
- ▶ They cause severe respiratory diseases and problems as well.
- ▶ Additionally, there is also the hassle of collecting firewood from mostly unsafe places.
- ▶ To avoid these problems, the government came up with this scheme.
- ▶ It was inaugurated in Ballia, Uttar Pradesh by the Prime Minister Narendra Modi on 1st May, 2016. This will go a long way in making women more empowered.

PMUY Features:

- ▶ Under this scheme, 5 crore connections are to be provided to the people needing them.
- ▶ BPL families will be offered a support of Rs.1600 per connection. This is for the cylinder, booklet, pressure regulator, safety hose, etc. and will be borne by the government itself.
- ▶ Apart from these, the scheme also provides interest-free loans to buy stove and refill by oil marketing companies.
- ▶ The connections would be given in the name of women of the households.
- ▶ An initial outlay of Rs.8000 crore was sanctioned for the implementation of the scheme.
- ▶ The authorities would identify BPL families based on the Socio-Economic Caste Census data.
- ▶ The scheme is also expected to create employment to the tune of about a lakh. It will also boost the 'Make in India' programme for manufacturers of gas cylinders, stoves, gas hose and regulators. Only domestic manufacturers are engaged in this.
- ▶ It is also a business opportunity to the tune of a minimum of Rs.10000 crore.

Jal Jeevan Mission:

- ▶ Major objective of Jal Jeevan Mission is to provide piped water supply (Har Ghar Jal) to all rural and urban households by 2024.
- ▶ It also aims to create local infrastructure for rainwater harvesting, groundwater recharge and management of household waste water for reuse in agriculture.
- ▶ According to the data published in various reports, about half of the country's households don't have access to piped water supply.
- ▶ It is an urgent requirement of water conservation in the country because of the decreasing amount of groundwater level.
- ▶ Therefore, Jal Jeevan Mission will focus on integrated demand and supply management of water at the local level.

Benefits of Jal Jeevan Mission:

1. Household pipeline water supply
2. Clean and drinkable water
3. Recharge of ground water level
4. Better local infrastructure
5. Less water-borne diseases
6. Less water wastage

IPPB ANNOUNCES ROLLOUT OF NEW SERVICES

Why in News?

- ▶ The Union Minister for Communications, Electronics & IT and Law & Justice announced the rollout of Aadhaar Enabled Payment System (AePS) Services by India Post Payments Bank (IPPB).

India Post Payments Bank:

- ▶ India Post Payments Bank (IPPB) has been established under the Department of Posts, Ministry of Communication with 100% equity owned by Government of India.
- ▶ IPPB was launched by the Hon'ble Prime Minister Shri Narendra Modi in 2018.
- ▶ The bank has been set up with the vision to build the most accessible, affordable and trusted bank for the common man in India.
- ▶ The fundamental mandate of India Post Payments Bank is to remove barriers for the unbanked & underbanked and reach the last mile leveraging the Postal network in India.
- ▶ IPPB's reach and its operating model is built on the key pillars of India Stack – enabling Paperless, Cashless and Presence-less banking in a simple and secure manner at the customers' doorstep, through a CBS-integrated smartphone and biometric device.

Significance of the AePS:

- ▶ IPPB's unparalleled network complimented with robust interoperable technology platform set up by National Payments Corporation of India (NPCI) is poised to take banking to each & every household across the remotest parts of the country.
- ▶ With AePS services any common person with a bank account linked to Aadhaar can perform basic banking services such as cash withdrawals and balance enquiry irrespective of the bank they hold their account with.
- ▶ To avail these services, a customer with an Aadhaar linked account can simply authenticate his/her identity with fingerprint scan & Aadhaar authentication to complete a transaction.
- ▶ AePS services are bank-agnostic and are driven by an inexpensive infrastructure enabling low cost delivery of doorstep banking services to every section of the society without discrimination, thus bringing forth the dawn of a 'Truly Inclusive Financial System'.

Kisan Man Dhan Yojana

Why in News?

- ▶ Prime Minister Narendra Modi shall launch the Kisan Maan Dhan Yojana in September 2019.
- ▶ Prime Minister Narendra Modi shall also inaugurate 400 Ekalvya Model Residential Schools to provide quality upper primary, secondary, and senior secondary level education to ST Students in Tribal dominated areas.

Scheme Highlights:

- ▶ The Scheme shall secure the lives of 5 Crore Small and Marginal Farmers by providing a minimum pension of Rs 3000 per month, to those who attain 60 years of age.
- ▶ All the small and marginal farmers who are currently between the ages of 18 to 40 years can apply for the scheme.
- ▶ Farmer's monthly contribution can be made from the installments of PM-KISAN or through CSCs.

Ekalvya Model Residential Schools:

- ▶ Ekalavya Model Residential School (EMRS) is a Government of India scheme for model residential school for Indian tribals (ST, Scheduled Tribes) across India.
- ▶ It is one the flagship intervention of the Ministry of Tribal Affairs, Government of India and was introduced in the year 1997-98 to ensure tribal students get access to quality education in the remote tribal areas.
- ▶ EMRSs are set up in States/UTs with grants under Article 275(1) of the Constitution of India.

NATIONAL GENOMIC GRID

Why in News?

- ▶ In a move to take cancer research to the next level and make treatment viable for people of different economic classes, the government has plans to set up a National Genomic Grid.
- ▶ It will study genomic data of cancer patients from India.

National Genomic Grid:

- ▶ The grid to be formed will be in line with the National Cancer Tissue Biobank (NCTB) set up at the IIT Madras.
- ▶ It will collect samples from cancer patients to study genomic factors influencing cancer and identifying the right treatment modalities for the Indian population.
- ▶ The grid will have four parts, with the country divided into east, west, north and south. The genomic samples will help researches to have India-specific studies on cancers.
- ▶ The government plans to set up the National Genomic Grid in the same style with pan-India collection centres by bringing all cancer treatment institutions on board.

National Cancer Tissue Biobank:

- ▶ The NCTB is functioning in close association with the Indian Council for Medical Research (ICMR).
- ▶ NCTB, which has the capacity to stock 50,000 genomic samples from cancer patients, already has samples from 3,000 patients.

INDIA IODINE SURVEY 2018-19 REPORT

Why in News?

- Tamil Nadu has the lowest consumption of iodized salt despite being the third biggest producer of salt in the country, according to a first-of-its-kind national survey to measure the coverage of iodised salt.

Highlights:

- ▶ The study shows that 76.3% of Indian households consumed adequately iodised salt, which is salt with at least 15 parts per million of iodine.
- ▶ The five worst performers were Tamil Nadu (61.9%), Andhra Pradesh (63.9%), Rajasthan (65.5%), Odisha (65.8%) and Jharkhand (68.8%).
- ▶ The survey was conducted by Nutrition International in collaboration with the AIIMS and the Indian Coalition for the Control of Iodine Deficiency Disorders (ICCIDD).
- ▶ The survey tested the iodine content in samples of cooking salt from households to estimate the coverage of iodised salt.

- ▶ The survey revealed that 13 out of 36 States have already achieved Universal Salt Iodisation or have 90% of households with access to adequately iodised salt.

Why Such Difference:

- ▶ The north-eastern States are doing very well with respect to iodised salt consumption at the household level because of the distance they have from the three salt producing centres — Gujarat, Rajasthan and Tamil Nadu.
- ▶ By and large most States get their salt from Gujarat and Rajasthan and because of the distance, it is sent by rail.
- ▶ Salt-producing States have access to common (or non-iodised) salt and, therefore, they start consuming it since it is readily available.

Salt Production in India:

- ▶ Rajasthan, which is the second largest producer of salt, also figured among the five worst covered States.
- ▶ Gujarat produces 71% of salt in the country, followed by Rajasthan at 17% and Tamil Nadu at 11%.
- ▶ The rest of the country accounts for a mere 1% of salt produced.

Significance of Iodised Salt:

- ▶ Iodine is a vital micro-nutrient for optimal mental and physical development of human beings.
- ▶ Deficiency of iodine can result in a range of disabilities and disorders such as goitre, hypothyroidism, cretinism, abortion, still births, mental retardation and psychomotor defects.
- ▶ Children born in iodine deficient areas may have up to 13.5 IQ points less than those born in iodine sufficient areas.
- ▶ India made fortification of salt with iodine mandatory for direct human consumption in 1992. This was relaxed in 2000 and then reimposed in 2005.
- ▶ In 2011, the Supreme Court, too, mandated universal iodisation for the control of iodine deficiencies.

Key Recommendations:

- ▶ The key recommendation of the study is to sustain the momentum so that iodine coverage does not fall below current levels.
- ▶ It also recommends that the States and the Centre work together to address the current gaps and look into issues that vary from one State to another, leading to adequately iodised salt not being produced.

CURRICULUM FOR LIFE SKILLS (JEEVAN KAUSHAL) DESIGNED

Why in News?

- ▶ Union Minister of State for Human Resource Development launched the Curriculum for Life Skills (JeevanKaushal) designed by University Grants Commission (UGC).

Highlights:

- ▶ UGC constituted Expert Committee prepared a Curriculum for Life Skills (JeevanKaushal) for Undergraduate Programme.
- ▶ The curriculum is designed to impart and strengthen the knowledge, skills and dispositions believed to be the best requisites of the current Industry and thereby empower the talent inherent in each learner.
- ▶ Life Skills like communication skill, interpersonal skill, time management, problem-solving ability, decision making capacity, leadership ability and integrity play a crucial role in boosting the employability of the students.
- ▶ Life skills (JeevanKaushal) curriculum cover the set of human talents acquired by an individual via classroom learning or life experience that can help them to deal with problems encountered in day to day life.
- ▶ This includes the core skills each individual must possess internally as well as externally for the betterment of self and the society as a whole. Adoption of life skills is the key to success and quality in life.

UNION HRD MINISTER LAUNCHES SEVERAL INITIATIVES

Why in News?

- ▶ Union Human Resource Development Minister launched the Smart India Hackathon 2020, Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2020, and Institution's Innovation Council 2.0.

Launch of IIC:

- ▶ MHRD's Innovation Cell has envisioned establishing a strong network of Institution's Innovation Council (IICs) in Higher Educational Institutes to promote innovation and start-up in academia through multitudinous modes leading to an innovation promotion eco-system in these campuses.
- ▶ The primary mandate is to encourage, inspire and nurture young students by supporting them to work with new ideas and transform these ideas into innovations of tomorrow while they are in their informative years.
- ▶ Through IIC, Institutes are encouraged to design semester wise activity plan, organise and report at IIC portal to obtain scores and star ratings as an incentive.

ARIIA 2020:

- ▶ Atal Ranking of Institutions on Innovation Achievements (ARIIA) is an initiative of Ministry of Human Resource Development (MHRD), Government of India
- ▶ The initiative aims to systematically rank all major educational institutions and universities on indicators related to promotion of “Innovation and Entrepreneurship Development” amongst their students and faculties.

Objectives:

- ▶ Setting direction for HEIs towards streamlining and establishing a strong startup ecosystem in campus and Measuring Innovation & Startup ecosystem based on Input, Process, Output and Outcome based Focusing on both quantity and quality aspects of Startup Eco-System available at Also measure the impact created by these innovations and Startups in society and
- ▶ Aiming at uplifting India’s Position in the Global Innovation Index from 57th to top 30 in a time period of 5.

Smart India Hackathon Report:

- ▶ Smart India Hackathon 2020 is a nationwide initiative to provide students a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem solving.
- ▶ In SIH 2020, the students would have the opportunity to work on challenges faced within various Ministries, Departments, Industries, PSUs and NGOs to create world class solutions for some of the top organizations including industries in the world, thus helping the Private sector hire the best minds from across the nation.
- ▶ Students across India compete creatively to solve problems of Ministries, Departments and Industries to give solutions Harness.
- ▶ Technology Students across India compete to creatively solve problems and offer technical solutions. Harness expertise of students from AICTE/UGC approved institutions, IITs, NITs and IISc.

PM MODI TO LAUNCH NATIONAL ANIMAL DISEASE CONTROL PROGRAMME

Why in News?

- ▶ Prime Minister Narendra Modi will launch the National Animal Disease Control Programme (NADCP) on 11th September 2019 from Mathura, Uttar Pradesh.

Highlights:

- ▶ The programme is launched for eradicating the Foot and Mouth Disease (FMD) and Brucellosis in the livestock.

- ▶ These diseases are very common amongst the livestock – cow-bulls, goats, pigs, buffaloes, sheep etc.
- ▶ If a cow/buffalo gets infected with FMD, the milk loss is up to 100% for 4 to 6 months and with infection of Brucellosis, the milk output reduces by 30%, for the entire life cycle.
- ▶ The infection of brucellosis can also be transmitted to the farmworkers and livestock owners
- ▶ The programme is of Rs 12,652 Crores for a period of 5 years till 2024 and is 100% funded by the Central Government.
- ▶ The Programme has 2 components i) to control the diseases by 2025 and ii) eradication by 2030. It aims at vaccinating over 500 Million Livestock including cattle, buffalo, sheep, goats and pigs against the FMD.

GOVT. LAUNCHED MULTILINGUAL 'CHC FARM MACHINERY' MOBILE APP FOR FARMERS

Why in News?

- ▶ The Union Minister of State for Agriculture and Farmers Welfare Purushottam Rupala recently launched a multilingual mobile app 'CHC Farm Machinery' during the National Conference on crop residue Management for farmers in Punjab, Haryana, Uttar Pradesh and Delhi.

Highlights:

- ▶ Agriculture and Farmers Welfare Minister also shared his ideas among farmers to ensure zero burning in all villages and also thanked farmers for bringing down incidents of stubble burning.
- ▶ While launching the mobile app several farmers shared experiences and gave suggestions about crop residue management.
- ▶ It was claimed by the ministry that more than 1000 farmers attended the conference from four States.

'CHC Farm Machinery Mobile App':

- ▶ The mobile app will allow farmers to avail custom hiring services of CHCs located in a radius of 50 km.
- ▶ CHC Farm Machinery Mobile App connects the farmers with Custom Hiring Service Centers in their area. Farmers can download this mobile app on any android phone from Google Play Store.
- ▶ Farmers can get affordable access to cutting-edge technology at their doorsteps with the help of this mobile app.

Crop residue burning:

- ▶ The issue of crop residue burning has become a major environmental problem causing health issues as well as contributing to global warming.
- ▶ There are some sustainable techniques like Composting, biochar production and mechanization that can help to curtail the issue while retaining the nutrients present in the crop residue in the soil.
- ▶ However, some steps by the government of India have taken to curtail this problem. Several measures and campaigns designed to promote sustainable management methods such as converting crop residue into energy have also started.
- ▶ In recent years, the alarming rise of air pollution levels caused by crop residue burning in the city of Delhi and other northern areas in India observed.

INDIA URBAN DATA EXCHANGE (IUDX)

Why in News?

- ▶ Starting with an open data platform for the 100 cities of the Smart Cities Mission by 2020, the government is planning to make a wide range of data — from health, education to finances, public by 2024.

India Urban Data Exchange (IUDX):

- ▶ IUDX is a research project under smart cities mission being implemented by Union Ministry of Housing and Urban Affairs (MoHUA) in collaboration with Indian Institute of Science (IISc), Bengaluru.
- ▶ The India Urban Data Exchange set up by the MoHUA for its Smart Cities would be expanded, eventually leading to a “marketplace”.
- ▶ IUDX will be an open source software platform for cities, industry and researchers to share Smart City data with each other that could be monetised in the future, similar to the UPI for bank accounts and digital payments.

Facilities Provided:

- ▶ MoHUA said that the open data platform for the 100 cities would be expanded to cover 500 cities by 2022 and all urban centres in the country by 2024.
- ▶ It will facilitate secure, authenticated and managed exchange of data amongst various data platforms, third-party authenticated and authorized applications and other data sources, data producers and consumers, both within a city to begin with and scaled up across cities eventually at a national level, in a uniform and seamless way.

Centre to Bring Ordinance to Ban e-cigarettes In Country

Why in News?

- ▶ The Union Cabinet is likely to approve an ordinance prohibiting the manufacture and sale of e-cigarettes in the country.

Highlights:

- ▶ The law would make production, manufacture, import, export, transport, sale, distribution or advertisements of e-cigarettes a cognizable offence.
- ▶ As per the draft bill, the offence will be punishable with jail up to one year or fine up to Rs. 1 lakh or both for first-time offenders, and jail of up to three years and fine up to 5 lakh for repeat offenders. Storage of e-cigarettes shall also be punishable with imprisonment up to six months or fine up to 50,000 or both.
- ▶ Experts from various fields have welcomed the move and urged the government to pass the ordinance in the larger interest of public health.
- ▶ E-Cigarettes are banned in about 30 countries.
- ▶ While anti-tobacco health experts are calling it a move in the right direction, the tobacco industry and its allies state that if enforced, this would be a draconian law hitting at the livelihood of many.

What are e-cigarettes?

- ▶ An electronic cigarette (or e-cig) is a battery-powered vaporizer that mimics tobacco smoking.
- ▶ It works by heating up a nicotine liquid.
- ▶ Nicotine juice comes in various flavors and nicotine levels.
- ▶ e-liquid is composed of five ingredients: vegetable glycerin (a material used in all types of food and personal care products, like toothpaste) and propylene glycol (a solvent most commonly used in fog machines.) propylene glycol is the ingredient that produces thicker clouds of vapor.
- ▶ Electronic cigarettes do not burn or use tobacco leaves but instead vaporise a solution the user then inhales.

Concerns:

- ▶ India has the second largest number of tobacco users (268 million) in the world – of these at least 12 lakh die every year from tobacco-related diseases.
- ▶ Electronic Nicotine Delivery Systems (ENDS) solutions and emissions contain other chemicals, some of them considered to be toxicants.
- ▶ ENDS contain nicotine solution which is highly addictive.
- ▶ The flavouring agents and vaporizers used in e-cigarettes are also harmful for health.
- ▶ Use of e-cigarettes has documented adverse effects on humans like DNA damage, carcinogenesis, cellular, molecular and immunological toxicity.

- ▶ It can cause respiratory, cardiovascular and neurological disorders.
- ▶ They are also known to have adverse effects on pregnancy and foetal development.
- ▶ Lack of knowledge about negative effects of nicotine and easy accessibility of these products make the youth prone to addiction.

ACCESSIBILITY STANDARD FOR TV PROGRAMMES FOR THE HEARING IMPAIRED

Why in News?

- ▶ In order to enhance the accessibility of television programmes for the hearing impaired, Union Ministry of Information & Broadcasting announced the implementation of Accessibility Standard for TV Programmes for persons with hearing impairment.

Highlights:

- ▶ The Accessibility will be enhanced through the provision of captioning and Indian Sign Language.
- ▶ All news channels are advised to carry a news bulletin with sign language interpretation at least once per day and all TV channels and service providers will run at least one programme per week with subtitles / captioning.
- ▶ Live news live and deferred live content/events such as sports, live music shows, award shows, live reality shows, live debates, scripted/ unscripted reality shows, etc. and advertisements/teleshopping content have however been exempted.
- ▶ The channels could either make their own programme with sign language interpretation, or, if they wished, carry a bulletin prepared by DD News free of cost.
- ▶ This will be implemented from 16th September 2019. The overall implementation of the Standards will be done in a phase wise manner in the next five years. The policy will be reviewed after two years.

JEEVAN KAUSHAL PROGRAMME

Jeevan Kaushal Programme:

- ▶ The University Grants Commission (UGC) has launched a “life skills” (Jeevan Kaushal) programme in the curriculum for under-graduate courses across the country.
- ▶ The new programme, which for 8 credit points, can be accommodated in any semester and is aimed at inculcating emotional and intellectual competencies in students develop verbal and non-verbal communication skills.
- ▶ The programme will comprise four courses – communication, professional, leadership and universal human values and skills.

- ▶ The programme will focus on teamwork, problem-solving and decision-making.
- ▶ It will be effective tools in helping students develop practical knowledge that helps them when they start their careers and become responsible citizens.

WORLD UNIVERSITY RANKINGS 2019

Why in News?

- ▶ The World University Rankings was recently released by the UK-based Times Higher Education.
- ▶ Oxford University continues to lead the rankings table followed by California Institute of Technology and University of Cambridge. Stanford University and MIT complete the top five table.

Highlights:

- ▶ For the first time since 2012, no Indian institution featured among the top 300.
- ▶ The country's best performing institution, IISc-Bangalore, slipped 50 places from the 251-300 ranking cohort into the 301-350 bracket.
- ▶ The dip was on account of a significant fall in its citation impact score offsetting improvements in research environment, teaching environment and industry income.

Why India slipped?

- ▶ The best Indian institutions are generally characterized by relatively strong scores for teaching environment and industry income.
- ▶ But they perform poorly when it comes to international outlook in comparison to both regional and international counterparts.
- ▶ Even as India dropped out of the top 300, it increased its representation in the rankings from 49 universities last year to 56 this time.
- ▶ As a result, India holds on to its place as the fifth most-represented nation in the world and the third most-represented in Asia (behind Japan and mainland China).
- ▶ It has eight more universities than Germany, which is sixth in the country ranking, but 25 fewer than China.

INDIA ACCOUNTED FOR 2.8 MILLION DISPLACED PEOPLE IN 2018: IDMC REPORT

Why in News?

- ▶ Internal Displacement Monitoring Centre (IDMC) has released a new global report on the displacement of people due to natural disasters.

- ▶ According to the IDMC report, about seven million people have been displaced globally due to natural calamities including floods and storms between January and June 2019.
- ▶ IDMC Report also informed that more than 950 climate-related issues forced about seven million people to leave their homes. Most of the affected people are living in the Asian and African regions. In South Asia India accounted for most of the displacements.

India Specific Highlights:

▶ **Natural Disaster-related Displacements:**

1. IDMC report informed that India accounted for most of the region's new displacements. Its overall total of 2.8 million was among the highest in the world, of which nearly 2.7 million were triggered by disasters across 15 states.
2. India was particularly hard-hit by the monsoon season when flooding devastated the south-western state of Kerala.
3. Almost 1.5 million new displacements were recorded in Kerala in what was described as the worst floods in a century.
4. Cyclone Titli struck Orissa and Andhra Pradesh states in October, triggering 400,000 new displacements and cyclone Gaja hit Tamil Nadu in November, triggering 2,49,000 displacements.

▶ **Conflict and Violence Related Displacements:**

1. According to the IDMC report, more than 1,60,000 new displacements associated with conflict and violence was recorded in Kashmir.
2. Communal violence in Kashmir and West Bengal cast violence in Maharashtra and political violence in Tripura also triggered small-scale displacement.

Global Highlights:

- ▶ IDMC report highlights that weather-related hazards, particularly storms, accounted for the majority of the new displacement associated with disasters, triggering 17.2 million displacements in 2018.
- ▶ In various regions of the world, unresolved conflicts and a rise in communal violence were responsible for most of the 10.8 million new displacements associated with conflict and violence in 2018.
- ▶ Despite the decline in conflict and displacement in Syria during 2018, the country's civil war, in its eighth year, continued to trigger some of the largest population movements in the world. More than 1.6 million new displacements were recorded.
- ▶ Around 221,000 people were living in displacement nationwide as of the end of the year, suffering dire conditions and unable to return because of destroyed housing, ongoing insecurity and a lack of resources.

IDMC:

- ▶ It is an authoritative source of data and analysis on internal displacement. The Internal Displacement Monitoring Centre (IDMC) was established in 1998 as the Norwegian Refugee Council (NRC). It works to inform policy and operational decisions that improve the lives of millions of people living in the internal displacement or at risk of becoming displaced in the future.

‘JALDOOT’ EXHIBITION FLAGGED OFF

Why in News?

- ▶ ‘Jaldoot’ a travelling exhibition arranged by Regional Outreach Bureau, Pune under the Ministry of Information and Broadcasting was flagged off.

Highlights:

- ▶ To tackle the water crisis looming the country, the Government of India launched the JALSHAKTI ABHIYAN, a water conservation campaign focusing on 1592 stressed blocks in 256 districts across the country. The Regional Outreach Bureau, (ROB), an office under the Ministry of Information and Broadcasting, Government of India, takes care of various outreach activities and development communication needs of the Central Government.
- ▶ ROB in association with MSRTC (Maharashtra State Road Transport Corporation) is launching the Jaldoot campaign. The ROB has redesigned the bus, to create the Jaldoot: Travelling Exhibition on Jalshakti Abhiyan.

Jalshakti Abhiyan:

- ▶ The Jalshakti Abhiyan focus on five key aspects:
 1. Water Conservation and Rainwater Harvesting
 2. Renovation of Traditional and other Water Bodies
 3. Reuse of Water and Recharging of structures
 4. Watershed Development
 5. Intensive Afforestation

INDIAN RAILWAYS MASSIVE SHRAMDAN DRIVE

Why in News?

- ▶ Indian Railways will undertake one more drive of “MASSIVE SHRAMDAN” with main focus on “COLLECTION OF PLASTIC WASTE”.

Highlights:

- ▶ Enhanced cleanliness, through collection of plastic waste from all railway premises. Particular attention to be given to approaches to stations.

- ▶▶ Creating awareness for a greater impact against single use plastic.
- ▶▶ Displaying Replacements/ Substitutes for such plastic items.
- ▶▶ For distributing Cloth bags in large numbers as advised by the Environment and Housekeeping Management Division of Railways.
- ▶▶ Educating all in Railways, including vendors to be prepared for ban of single use plastic with effect from October 2019. Single use plastic means usage of any plastic below 50 microns, in any mann

Inflight and Maritime Telecom Connectivity in India

Why in News?

- ▶▶ Union Ministry for Communications, Electronics & Information Technology has launched the maritime communication services.

Providing Maritime connectivity:

- ▶▶ Nelco India's leading VSAT solutions provider is the first Indian company that will now provide quality broadband services to the maritime sector.
- ▶▶ Nelco through global partnerships, infrastructure including transponder capacity on satellite of ISRO and a comprehensive service portfolio
- ▶▶ It will help Energy, Cargo and Cruise vessels by enhancing operational efficiency, improving crew welfare and enabling customer services.
- ▶▶ Maritime Connectivity will enable high-end support to those in sea by providing access to Voice, Data and Video services while traveling on sailing vessels, cruise liners, ships in India, using satellite technology.

Making it possible through IFMC license:

- ▶▶ In December 2018, the Govt. announced the licenses for In-flight and Maritime Communications (IFMC) that allows voice and internet services while flying over the Indian skies and sailing in Indian waters.
- ▶▶ The IFMC licence has not only enabled connectivity for on-board users on ships but also brings operational efficiencies for shipping companies which were less evolved until now.
- ▶▶ The IFMC license is a key initiative of the Telecom Ministry, a move to liberalise satellite communication services in India.
- ▶▶ It permits both international and Indian aircrafts and vessels.

FMC Rules:

- ▶▶ In a major policy decision, Department of Telecommunications, Ministry of Communications had notified the Flight and Maritime Connectivity (FMC) Rules, 2018 on 14th December 2018.
- ▶▶ It permits voice and data service provisioning in flights and ships.

- ▶ The intent is to open the airspace and territorial waters for telecommunication services for general public which was not possible earlier due to lack of enabling rules.
- ▶ Rules envisage creation of satellite gateway within India for providing telecom services in aircraft and ships through Indian licensed service providers.
- ▶ Further, Indian satellite bandwidth has to be utilised. If a foreign satellite is used, it has to be approved by ISRO.
- ▶ Only the authorized IFMC service provider, can provide wireless voice or data or both type of services on ships within Indian territorial waters and on aircraft within or above India or Indian territorial waters.

MEASURES TO ENHANCE IPR ECOSYSTEM THROUGH LOWER FEES

Why in News?

- ▶ The Ministry of Commerce and Industry has proposed to reduce the fees for various IPRs (Intellectual Property Rights).

Highlights:

- ▶ The fee structure reduced is for both e-filing and physical filing.
- ▶ The reduction in fees ranges from a 50% decrease to a 100% reduction (waiver of fees) for different sectors.
- ▶ Geographical Indications have been given a 100% reduction in the fees.
- ▶ Domestic filing for patents has increased from 22% in 2013-14 to 34% in 2018-19.
- ▶ Awareness programmes for IP are being conducted at schools, colleges, universities, R&D institutes and industry clusters.
- ▶ To address the issue of pendency in IP applications, the government has streamlined the process, and also increased manpower in this field.

‘San-Sadhan’ Hackathon

Why in News?

- ▶ Design for Divyangjan-accessible toilets showcased in ‘San-Sadhan’ Hackathon.
- ▶ Participants of the ‘San-Sadhan’ Hackathon came up with thought-provoking ideas for accessible toilets for the physically challenged (Divyangjans).

‘San-Sadhan’ Hackathon:

- ▶ It was organized jointly by the Ministry of Jal Shakti and the Department of Empowerment of Persons with Disabilities, in collaboration with Atal Innovation Mission and NITI Aayog. The Bill and Melinda Gates Foundation and 91springboard were also part of this initiative.
- ▶ This was an initiative under the Swachh Bharat Mission.

- ▶ Applications were invited for designs that make toilets smarter, more accessible, and easier to use. The government said that it was looking for smart, scalable and innovative solutions for economical toilets for individual and community use in rural and urban contexts.
- ▶ Three innovators were selected winners from the shortlisted 21 applications.

ZONAL COUNCILS

Why in News?

- ▶ The 29th meeting of the Northern Zonal Council will be held on 20th September at Chandigarh.

Zonal Councils:

- ▶ Zonal Councils are statutory bodies established under the States Reorganisation Act 1956.
- ▶ They are advisory bodies and were established to promote interstate cooperation and coordination.
- ▶ There are five zonal councils in India, as follows:
 1. Northern Zonal Council: Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, and Rajasthan
 2. Central Zonal Council: Chhattisgarh, Madhya Pradesh, Uttarakhand and Uttar Pradesh
 3. Eastern Zonal Council: Bihar, Jharkhand, Odisha, and West Bengal
 4. Southern Zonal Council: Andhra Pradesh, Karnataka, Kerala, Puducherry, Tamil Nadu, and Telangana
 5. Western Zonal Council: Dadra and Nagar Haveli, Daman and Diu, Goa, Gujarat, and Maharashtra
 6. Andaman and Nicobar Islands, as well as Lakshadweep, are not members but are special invitees to the Southern Zonal Council.
- ▶ The north-eastern states are not members of any of the above councils. Their problems are addressed by another statutory body, the North Eastern Council, created by the North Eastern Council Act, 1971.

NATIONAL RECRUITMENT AGENCY (NRA)

Why in News?

- ▶ The Finance Ministry has approved a proposal to streamline recruitment of some posts in the government along with various equivalent recruitment in public sector banks.
- ▶ A new National Recruitment Agency (NRA) will be set up to conduct the Common Eligibility Test (CET) for all these competitive examinations, in which an estimated 2.5 crore candidates appear annually.

National Recruitment Agency (NRA):

- ▶ The proposed NRA will conduct preliminary examinations for all these recruitment, which are at present conducted by the Staff Selection Commission (SSC) and the Institute of Banking Personnel Selection (IBPS).
- ▶ As per the proposal, the NRA will subsequently forward the list of qualifying candidates to the respective recruiting agencies to conduct the mains examinations.
- ▶ The SSC and IBPS, it is learnt, will not be disbanded for now and will conduct the mains examinations as usual.
- ▶ The basic idea behind this proposal is to shortlist qualifying candidates through a Common Eligibility Test before sending them for the mains examination.

Need for a New Agency:

- ▶ The proposal for a new agency is meant to streamline recruitment process on subordinate-rank posts in the government.
- ▶ The proposed NRA is expected to reduce the burden of SSC and the IBPS, among others, from holding preliminary recruitment exams, which is an extensive exercise.
- ▶ Once up and running, NRA will work as a preliminary single-window agency to shortlist qualifying candidates from bulk of applicants and forward the list to SSC, IBPS, etc, to hold the mains. According to an estimate, more than 2.5 crore candidates sit for these prelims, most of them conducted by SSC.
- ▶ Recruitment conducted at present through the SSC and proposed to go to the new agency include the Combined Graduate Level (CGL) examination to enter government departments.

Clerical level:

- ▶ Similarly in line with CGL, recruitment tests for clerical-level recruitment in public sector banks are proposed to go to the NRA.
- ▶ The proposed agency, however, will not be in charge of recruitment of Probationary Officers (PO) in banks.

PARAQUAT HERBICIDE

Why in News?

- ▶ The use of herbicide Paraquat killed around 170 people in the last two years in Odisha's Burla district leading to demands for its ban.

Highlights:

- ▶ Paraquat is a toxic chemical that is widely used as an herbicide (plant killer), primarily for weed and grass control.
- ▶ It has been banned in 32 countries including Switzerland, where herbicide producing company Syngenta is based.

- ▶ Paraquat also figures on the list of 99 pesticides and herbicides the Supreme Court to ban in an ongoing case.
- ▶ Paraquat dichloride is being used for 25 crops in India, whereas it is approved to be used on only nine crops by the Central Insecticide Board and Registration Committee. This is a violation of the Indian Insecticides Act.
- ▶ So far in India, only Kerala has banned the herbicide.
- ▶ Another violation: since farmers can't and don't read the label on paraquat containers, retailers sell paraquat in plastic carry bags and refill bottles.

Why lethal?

- ▶ There is no antidote to this herbicide, the consumers of which complain of kidney, liver and lung problems.
- ▶ They may recover from kidney problems but die of lung- and liver-related ailments. Some also witness kidney failure.
- ▶ Paraquat is yet to be listed in the prior informed consent (PIC) of Rotterdam Convention, is an international treaty on import/export of hazardous chemicals signed in 1998.
- ▶ If a chemical figure in the PIC, the exporting country has to take the importing nation's prior consent before exporting it.

Rotterdam Convention:

- ▶ The Rotterdam Convention is formally known as the Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
- ▶ It is a multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals.
- ▶ The convention promotes open exchange of information and calls on exporters of hazardous chemicals to use proper labeling, include directions on safe handling, and inform purchasers of any known restrictions or bans.
- ▶ Signatory nations can decide whether to allow or ban the importation of chemicals listed in the treaty, and exporting countries are obliged to make sure that producers within their jurisdiction comply. India is a party to the convention, with 161 other parties.

COMPANY LAW COMMITTEE

Why in News?

- ▶ The government constituted the Company Law Committee for examining and making recommendations on various provisions and issues pertaining to the implementation of the Companies Act.

Highlights:

- ▶ The Committee will examine and make recommendations on various issues pertaining to the Companies Act, 2013 and the Limited Liability Partnership Act, 2008.
- ▶ The Committee will comprise of a chairperson and members.
- ▶ The Secretary of the Ministry of Corporate Affairs is the Chairman.
- ▶ The Committee will analyse the nature of offences (compoundable and non-compoundable) and submit its recommendation as to whether any of the offences could be re-categorized as 'civil wrongs' along with measures to optimize the compliance requirements under the Companies Act, 2013 and to provide further Ease of Doing Business.
- ▶ It will also study the feasibility of introducing settlement mechanism, deferred prosecution agreement, etc., within the ambit of the Companies Act, 2013.
- ▶ It will also examine the LLP Act and recommend measures to promote Ease of Doing Business.

NATIONAL INSTITUTE OF OCEAN TECHNOLOGY (NIOT)

Why in News?

- ▶ Officials from the Ministry of Earth Sciences apprised the Vice-president of the status of the National Institute of Ocean Technology's research facility at Thupilipallam village in Nellore District of Andhra Pradesh.

Highlights:

- ▶ The foundation stone for the research facility at Thupilipallam was laid in 2016 but the project has seen delays due to legal hurdles.

National Institute of Ocean Technology (NIOT):

- ▶ NIOT is an autonomous society under the Ministry of Earth Sciences, established in 1993.
- ▶ It has its main office at Chennai, Tamil Nadu.
- ▶ The chief objective of the institute is to develop reliable indigenous technologies to solve the various engineering problems associated with the harvesting of non-living and living resources in the Indian Exclusive Economic Zone (EEZ), which is about two-thirds of the land area of India.
- ▶ The institute engages in developing technologies for sustainable utilization of ocean resources.
- ▶ It also engages in providing solutions to organisations working in the field.

Exclusive Economic Zone (EEZ):

- ▶ The EEZ is a sea zone prescribed by the UNCLOS in 1982, over which a country has special rights regarding the exploration and use of marine resources, including energy production from water and wind.
- ▶ It stretches from the baseline out to 200 nautical miles from a country's coast.

- ▶ The term EEZ does not include the continental shelf beyond 200 nautical miles. It also does not include the territorial sea.
- ▶ The difference between territorial sea and the EEZ is that the former confers full sovereignty over the waters, whereas the latter is merely a “sovereign right” which refers to the coastal nation’s rights below the surface of the sea.
- ▶ The surface waters are international waters.

NATIONAL EDUCATIONAL ALLIANCE FOR TECHNOLOGY (NEAT) SCHEME

Why in News?

- ▶ The Ministry of Human Resource Development (MHRD) has announced a new PPP (public-private partnership) scheme, National Educational Alliance for Technology (NEAT) for using technology for better learning outcomes in higher education.

Highlights:

- ▶ The objective of the scheme is to use Artificial Intelligence to make learning more personalised and customised as per the requirements of the learner.
- ▶ This requires the development of technologies in Adaptive Learning to address the diversity of learners.
- ▶ There are a number of start-up companies developing this and MHRD seeks to recognise such efforts and bring them under a common platform so that learners can access it easily.
- ▶ The Ministry wishes to make such technologies accessible to a large number of students from economically weaker sections.
- ▶ The Ministry would create and maintain a National NEAT platform that would provide one-stop access to these technological solutions.
- ▶ Ed-Tech companies would be responsible for developing solutions and managing the registration of learners through the NEAT portal.
- ▶ They would be free to charge fees as per their policy.
- ▶ As their contribution towards the national cause, they would have to offer free coupons to the extent of 25% of the total registrations for their solution through the NEAT portal.
- ▶ The Ministry would then distribute these free coupons to economically disadvantaged students.
- ▶ The All India Council for Technical Education (AICTE) would be the implementing agency for the NEAT programme.
- ▶ Expert committees would select the Ed-tech companies.
- ▶ The Ministry proposes to launch and start operations by November 2019.

THE BURDEN OF MALNUTRITION IN UNDER-5 CHILDREN IN INDIA

Why in News?

- ▶ A report published in The Lancet Child & Adolescent Health gives comprehensive estimates of disease burden due to child and maternal malnutrition and the trends of its indicators in every state of India from 1990 to 2017.

Highlights:

- ▶ The death rate attributable to malnutrition in under-5 children in India has dropped by two-thirds from 1990 to 2017.
- ▶ Malnutrition is, however, still the underlying risk factor for 68% of the deaths in under-five children in India.
- ▶ The Disability-Adjusted Life Years (DALY) rate attributable to malnutrition in children varies 7-fold among the states — a gap between a high of 74,782 in Uttar Pradesh and a low of 11,002 in Kerala.
- ▶ Other states with a high burden are Bihar, Assam and Rajasthan. followed by Madhya Pradesh, Chhattisgarh, Odisha, Nagaland and Tripura.

U5 mortality:

- ▶ The proportion of under-5 deaths attributable to malnutrition, which is 68.2% across India, ranges between a high of 72.7% in Bihar and a low of 50.8% in Kerala.
- ▶ Rajasthan, Chhattisgarh and Uttar Pradesh are states with a high such proportion, while Meghalaya, Tamil Nadu, Mizoram and Goa have the lowest proportions of such deaths.
- ▶ Among the malnutrition indicators, low birth weight is the largest contributor to child deaths in India, followed by child growth failure which includes stunting, underweight, and wasting.

ERSS- Dial 112, 'E-Beat Book' System and 'E-Saathi' App

Why in News?

- ▶ The Union Home Minister Mr. Amit Shah launched three citizen-centric services of the Chandigarh Police which are ERSS- Dial 112, 'E-Beat Book' System and 'E-Saathi' App, in Chandigarh.

ERSS:

- ▶ ERSS stands for Emergency Response Support System.
- ▶ ERSS is one of the key projects of the Union Ministry of Home Affairs under the Nirbhaya Fund. ERSS provides a single emergency number (112), and a computer-aided dispatch of field resources to the location of distress.
- ▶ Citizens can send their emergency information through call, SMS, email and through the 112 India mobile app.

Dial 112:

- ▶ Till now, there were more than 20 emergency helpline numbers, for various kinds of emergencies needing the help of rescue forces in the domains of fire, health, police, etc.
- ▶ This was ineffective since the public would often get confused with the numbers and end up wasting time calling the wrong emergency service. To avoid this, the Dial 112 is created, which is a single number for immediate assistance services from police (100), health (108), fire (101), and women (1090). Initially, 16 states and Union Territories are planning to roll-out the service. In the future, more emergency services would be covered in this initiative.

E-Beat Book:

- ▶ It is a web and mobile-based application which will ease the collection, updation and analysis of information related to crime and criminals in real-time.
- ▶ The E-Beat Book would be linked with the Crime and Criminal Tracking Network & Systems (CCTNS), which would help in real-time updation of crime/criminal data.
- ▶ Every Beat Officer would be having an android phone to use the App.

'E-Saathi' App:

- ▶ This App is intended to help the general public, including senior citizens, to remain in touch with the police and also give suggestions to facilitate participative community policing.
- ▶ The beat officer would be able to provide services like passport verification, tenant verification, servant verification, character certification, etc. at a click of a button through the App, without people needing to visit the police station.

PRADHAN MANTRI MATRU VANDANA YOJANA

Why in News?

- ▶ Pradhan Mantri Matru Vandana Yojana (PMMVY), a flagship scheme of the Government for pregnant women and lactating mothers has achieved a significant milestone by crossing one crore beneficiaries.

PMMVY:

- ▶ PMMVY is a direct benefit transfer (DBT) scheme under which cash benefits are provided to pregnant women in their bank account directly to meet enhanced nutritional needs and partially compensate for wage loss.
- ▶ Implementation of the scheme started with effect from 01.01.2017.
- ▶ Under the 'Scheme', Pregnant Women and Lactating Mothers (PW&LM) receive a cash benefit of Rs. 5,000 in three installments on fulfilling the respective conditionality.
- ▶ They include early registration of pregnancy, ante-natal check-up and registration of the birth of the child and completion of first cycle of vaccination for the first living child of the family.

- ▶ The eligible beneficiaries also receive cash incentive under Janani Suraksha Yojana (JSY). Thus, on an average, a woman gets Rs. 6,000.

Performance by states:

- ▶ Madhya Pradesh, Andhra Pradesh, Himachal Pradesh, Dadra & Nagar Haveli and Rajasthan are the top five States/UT in the country in implementation of PMMVY.
- ▶ Odisha and Telangana are yet to start implementation of the scheme.

DRAFT RULES TO REGULATE SOCIAL MEDIA

Why in News?

- ▶ The Centre has informed the Madras High Court that deliberations on the Draft Information Technology [Intermediaries Guidelines (Amendment)] Rules, 2018, has been completed.

Highlights:

- ▶ The Government had sought to make it mandatory for platforms such as WhatsApp, Facebook and Twitter to trace originator of unlawful information.
- ▶ It had also sought to make it mandatory to remove such content within 24 hours after being notified.
- ▶ Initially, Advocate Antony Clement Rubin had approached the Court to obtain an order for linking Aadhaar with social media accounts.
- ▶ However, the HC made it clear that it was not in favour of such a plea.
- ▶ Instead, the HC expanded the scope of the case & suo motu impleaded Facebook, Google, YouTube, Twitter, WhatsApp as parties to the case.
- ▶ This ensured that they could be made to cooperate with the local police in cracking cybercrimes by sharing necessary information
- ▶ The guidelines mandate social media companies to cooperate with the police in cracking cybercrimes. The Bench led by Justice Sathyanarayanan, told senior counsel, representing WhatsApp, that the social media giants were bound to obey local laws of the country in which they operate & share requisite information with the police.
- ▶ It said, the companies could not take umbrage under the right to privacy.

CONTROLLED HUMAN INFECTION MODEL (CHIM)

Why in News?

- ▶ The Department of Biotechnology (DBT) is close to finalising three projects involving Indian and European scientists to develop new influenza vaccines using a Controlled Human Infection Model (CHIM).

CHIM:

- ▶ In a Controlled Human Infection Model (CHIM) study, a well-characterized strain of an infectious agent is given to carefully select adult volunteers.
- ▶ This is done in order to better understand human diseases, how they spread, and find new ways to prevent and treat them.
- ▶ These studies play a vital role in helping to develop vaccines for infectious diseases.
- ▶ Such studies, which are being employed in vaccine development in the US, the UK and Kenya, are being considered in India.

Significance:

- ▶ A CHIM approach will speed up the process whereby scientists can quantify whether potential vaccine candidates can be effective in people and identify the factors that determine why some vaccinated people fall sick and others do not.
- ▶ CHIM models help vaccine-makers decide whether they should go ahead with investing in expensive trials.

Concerns:

- ▶ The risk in such trials is that intentionally infecting healthy people with an active virus and causing them to be sick is against medical ethics.
- ▶ It also involves putting human lives in danger.

VAHAN DATABASE

Why in News?

- ▶ The Ministry of Road Transport & Highways has asked all PUC Centres (Centres that issue Pollution Under Control Certificates/PUC Certificates to on-road vehicles) to link emission test data with the VAHAN Database.

VAHAN Database:

- ▶ VAHAN is a digital national vehicle registry portal.
- ▶ It collates all the information available with road transport authorities for easy access by both citizens and regulators.
- ▶ The portal allows access to all details about vehicles such as registration number, colour, chassis/engine number, body/fuel type, manufacturer and model and provides various online services to citizens.
- ▶ Driving Licence and related information are automated through another application called 'Sarathi'.
- ▶ VAHAN offers the following services:
 1. Vehicle registration (New/Renewal/Transfer, etc.)
 2. Permit (Issuance/Renewal)

3. Taxes (Calculation and Payment)
4. Fitness (Fitness Certificate issuance and renewal)
5. Enforcement (Issue of Challan, Settlement of Penalty Amount)

UMMID and NIDAN Kendras

Why in News?

- ▶ The Union Health Minister inaugurated the UMMID and NIDAN Kendras on 23rd September.

UMMID:

- ▶ UMMID stands for Unique Methods of Management and treatment of Inherited Disorders.
- ▶ It has been launched to tackle inherited genetic diseases of new-born babies and pregnant women.
- ▶ The initiative aims to:
 1. Produce skilled clinicians in human genetics.
 2. Establish five NIDAN Kendras.
- ▶ It is supported by the Department of Biotechnology (DBT) under the Ministry of Science and Technology. This was launched taking into account the fact that congenital and hereditary genetic diseases are becoming a great health burden in India.
- ▶ There is a need for adequate and effective genetic testing and counselling services.
- ▶ In India's urban areas, congenital malformations and genetic disorders are the third most common cause of mortality in new-borns.
- ▶ With a very large population and high birth rate, and consanguineous marriage (marriage among blood-relatives) favoured in many communities, the prevalence of genetic disorders is high in India. The NIDAN Kendras will provide counselling, prenatal testing and diagnosis, management, and multidisciplinary care in government hospitals (where there are more patients). The Kendras will produce trained clinicians and also undertake screening of pregnant women and new-borns for inherited genetic diseases.

SPECIAL EXPENDITURE OBSERVERS

Why in News?

- ▶ ECI has recently appointed two Special Expenditure Observers for the upcoming Maharashtra Assembly elections.

Special Expenditure Observers:

- ▶ The Special Expenditure Observers are appointed in the exercise of the powers conferred on ECI under Article 324 of the Constitution and the Representation of the People Act, 1951.
- ▶ The SEO would be required to watch the conduct of Elections with special emphasis on controlling the abuse of money power, in consultation with the Chief Electoral Officer.

- ▶ The SEO will be supervising and monitoring the work being done by the electoral machinery and ensure that stringent and effective enforcement action is undertaken.
- ▶ Their actions would be based on intelligence inputs and complaints received through C-VIGIL, Voter Helpline 1950 against all persons/entities trying to induce voters by distributing cash, liquor & freebies etc. in order to vitiate the poll process.

SARDAR PATEL NATIONAL UNITY AWARD

Why in News?

- ▶ The Government of India has instituted the ‘Sardar Patel National Unity Award’ as the highest civilian award for contribution to the unity and integrity of India.

Sardar Patel National Unity Award:

- ▶ The Ministry of Home Affairs issued a notice to this effect on 20th September 2019.
- ▶ The award seeks to recognize notable and inspiring contributions to promote the cause of national unity and integrity and to reinforce the value of a strong and united India.
- ▶ The award will be announced on the occasion of National Unity Day, i.e. the birth anniversary of Sardar Patel on 31st
- ▶ The award shall be conferred by the President by a Sanad under his hand and seal and presented by him in a presentation ceremony along with the Padma award presentation ceremony held at the Rashtrapati Bhawan.
- ▶ The award would consist of a medal and a citation.
- ▶ No monetary grant or cash award would be attached to this award.
- ▶ Not more than three awards would be given in a year. It would not be conferred posthumously except in very rare and highly deserving cases.
- ▶ Nominations can be sent by any Indian national, institution, or organisation based in India. Individuals can also nominate themselves. State/UT governments or ministries in the GOI can also send nominations.

‘TB Harega Desh Jeetega’ Campaign

Why in News?

- ▶ The Union Minister for Health and Family Welfare launched the ‘TB Harega Desh Jeetega’ Campaign along with the National TB Prevalence Survey on 25th September. He also released the TB India Report (2019).

‘TB Harega Desh Jeetega’ Campaign:

- ▶ The chief objective of the campaign is to eliminate tuberculosis (TB) from India.
- ▶ The campaign has 3 pillars:
 1. Clinical Approach

2. Public Health Component

3. Active Community Participation

- ▶ Supporting aspects of the campaign include patient support, private sector engagement, political and administrative commitment at all levels.
- ▶ The government will make sure that TB patients receive free and high-quality treatment and care at private and public hospitals.
- ▶ The government has set the target year for eradicating TB from the country as 2025. The global target set by the UN is 2030.
- ▶ It also aims to improve and expand the reach of TB care services across the country by 2022.
- ▶ This includes preventive and promotive approaches and proposes interventions such as engagement with private sector health care providers, inter-ministerial partnerships, corporate sector engagement, latent TB infection management, and community engagement. The interventions will be accompanied by a comprehensive, mass media and communications campaign to generate awareness about the disease and the free treatment services available under the government programme.
- ▶ Last year, the government has launched the Nikshay Poshan Yojana, a direct benefit transfer (DBT) scheme to provide nutritional support to TB patients. Since then, about 26 lakh patients have received the benefit directly into their bank accounts.

National TB Prevalence Survey:

- ▶ This survey is crucial for achieving the goal of ending TB in India by 2025.
- ▶ The survey will take 6 months and cover the whole country.
- ▶ The data thus obtained will be used as a policy tool for further interventions.
- ▶ According to TB India Report, 21.5 lakh cases of TB were reported in 2018.
- ▶ In 2017, there were 18 lakh cases and 2018 saw a rise of 17% from the previous year.

3rd INDIA AGRICULTURAL OUTLOOK FORUM 2019

Why in News?

- ▶ The 3rd India Agricultural Outlook Forum 2019 commenced in New Delhi.

India Agricultural Outlook Forum:

- ▶ The India Agricultural Outlook Forum was first held in 2017.
- ▶ It is conducted by the Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) under the Indian Government.
- ▶ The first such forum was held in collaboration with the United States Department of Agriculture (USDA).
- ▶ The theme for the 2019 edition of the Forum is 'Universal Basic Income for Farmers'.

- ▶ Other topics that will be discussed this year are the key challenges and opportunities before the agricultural sector, including the ways to manage excess production, price forecasting, artificial in

TOBACCO QUITLINE

Why in News?

- ▶ The National Tobacco Cessation QuitLine is a dedicated toll-free number that helps tobacco users to receive free support and guidance to subdue their addiction.

Highlights:

- ▶ The Union government's tobacco Quitline is monitored by National Institute of Mental Health and Neurosciences (NIMHANS).
- ▶ The helpline started by the Union Health Ministry in April 2018 is displayed on all tobacco products.
- ▶ Subsequently, the south Indian regional languages cell, NIMHANS Tobacco Quitline was started on September 11, 2018.
- ▶ Those who are unable to kick the habit only with the help of Quitline, are referred to the nearest Tobacco Cessation Clinic (TCC). Penetration in rural areas is the next plan.

mCessation programme:

- ▶ Ministry of Health & Family Welfare, in partnership with World Health Organisation and the International Telecommunications Union, had started an initiative for utilising mobile technology for tobacco cessation.
- ▶ WHO-ITU's 'Be Healthy Be Mobile' initiative, aims to reach out to tobacco users of all categories who want to quit tobacco use.
- ▶ The Centre's 'mCessation' Programme to quit tobacco is a text messaging programme for mobile phone users.
- ▶ A person looking to quit tobacco can give a missed call to the toll-free number after which, they will be sent a series of messages over several months.
- ▶ In a 2018 report published by the peer-reviewed online journal BMJ Innovations it was reported that the 'mCessation' programme in India had seen a 19% quit rate (estimated as not used any tobacco in the past 30 days).

“Voluntary Code of Ethics” by Social Media Platforms

Why in News?

- ▶ Internet & Mobile Association of India (IAMAI) on behalf of its members has agreed to observe the “Voluntary Code of Ethics” during all future elections including the ongoing State Assembly Elections.

- ▶ IMAI and social media platforms Facebook, Whatsapp, Twitter, Google, Sharechat and TikTok had presented and observed this Code during the General Elections to 17th Lok Sabha 2019.

Highlighted features of “Voluntary Code of Ethics”:

- ▶ Social Media platforms will voluntarily undertake information, education and communication campaigns to build awareness including electoral laws and other related instructions.
- ▶ Social Media platforms have created a high priority dedicated grievance redressal channel for taking expeditious action on the cases reported by the ECI.
- ▶ Social Media Platforms and ECI have developed a notification mechanism by which ECI can notify the relevant platforms of potential violations of Section 126 of the R.P. Act, 1951 and other electoral laws.
- ▶ Platforms will ensure that all political advertisements on their platforms are pre-certified from the Media Certification and Monitoring Committees as per the directions of Hon’ble Supreme Court. Participating platforms are committed to facilitate transparency in paid political advertisements, including utilising their pre-existing labels/disclosure technology for such advertisements

WORLD DIGITAL COMPETITIVENESS RANKING (WDCR) 2019

Why in News?

- ▶ India has advanced four places to 44th position in terms of digital competitiveness in the world.

Highlights:

- ▶ The Ranking, produced by the IMD World Competitiveness Center, measures the capacity and readiness of 63 nations to adopt and explore digital technologies as a key driver for economic transformation in business, government and wider society.
- ▶ To evaluate an economy, WDCR examines three factors:
 - ▶ Knowledge: the capacity to understand and learn the new technologies;
 - ▶ Technology: the competence to develop new digital innovations; and
 - ▶ Future readiness: the preparedness for the coming developments.

India’s Progress:

- ▶ India rose from 48th place in 2018 to 44th rank this year as the country has improved overall in all factors – knowledge, technology and future readiness – as compared to the previous year’s ranking.
- ▶ India has made improvement in terms of knowledge and future readiness to adopt and explore digital technologies, according to a global report.

Global Scenario:

- ▶ The US was ranked as the world's most digitally competitive economy, followed by Singapore in the second place.
- ▶ Sweden was ranked third on the list, followed by Denmark and Switzerland in the 4th and 5th place, respectively.
- ▶ Others in the list of top-10 most digitally competitive economy include Netherlands in the 6th place, Finland (7th), Hong Kong SAR (8th), Norway (9th) and Republic of Korea (10th).
- ▶ The largest jump in the overall ranking was registered by China, moving from 30th to 22nd, and Indonesia, from 62nd to 56th.

GOVT. LAUNCHES NEW FRAMEWORK TO SUSTAIN INDIA'S '100% ODF STATUS'

Why in News?

- ▶ The Union Jal Shakti Ministry's Department of Drinking Water and Sanitation (DDWS), launched a 10-year national rural sanitation strategy to sustain India's 100 per cent Open Defecation Free (ODF).

Framework:

- ▶ The framework, to be in place from 2019 to 2029, will ensure that people sustain their usage of toilets. It will also focus on proper implementation of solid and liquid waste management (SLWM) — plastic waste, organic waste, grey water, and faecal sludge — in rural areas.
- ▶ They include the retrofitting of single pit toilets to twin pits or making provisions to empty pits every five years, repair of defunct ones, and construction of soak pits for septic tanks wherever not already present. A district-level training management unit (TMU) will be set up to provide oversight and support to gram panchayats (GPs) so that they ensure the operation and maintenance of sanitation infrastructure.
- ▶ The GPs are also supposed to conduct rapid assessment of water and sanitation gaps.

Alternative Financing:

- ▶ The government funding is the primary source of financing in the sanitation sector.
- ▶ The above strategy mentioned in the framework also suggests alternative self-financing by gradual leveraging of community resources in the form of tariffs for ODF plus activities.
- ▶ It will follow the same 60:40 financing model as being followed till now in Swachh Bharat. It will be finalised after the cabinet's approval.
- ▶ The framework also talks about state-specific strategies on menstrual hygiene management, including menstrual waste management, which may be supported under the ODF plus strategy.

AYUSHMAN BHARAT PMJAY START-UP GRAND CHALLENGE

Why in News?

- ▶ The Prime Minister will launch the Ayushman Bharat Start-Up Grand Challenge in New Delhi at Arogya Manthan function organized by the National Health Authority. This function marks the one-year anniversary of the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PMJAY).

Ayushman Bharat PMJAY Start-Up Grand Challenge:

- ▶ The Ayushman Bharat PMJAY Start-Up Grand Challenge is a call to action for the Indian start-up community to generate cutting-edge solutions for supporting the National Health Authority towards more effective implementation of Ayushman Bharat PMJAY.
- ▶ It is in partnership with Startup India.
- ▶ It is showcased as a unique, first-of-its-kind opportunity for start-ups to be a critical participant and stakeholder in implementing AB-PMJAY.
- ▶ Under this initiative, Startups engaged in sectors such as medical devices, digital health, health communications, hospital services and hospital management, medical workforce training and capacity building, etc. are invited to solve a set of problem statements reflecting critical implementation challenges of AB-PMJAY.
- ▶ The top 7 startups will be selected to work with the Ayushman Bharat scheme. Other benefits that winners will receive include cash prizes, piloting and testing opportunities, industry mentorship, procurement and funding support.

3.SCIENCE & TECHNOLOGY

GENOME SEQUENCING OF BACTERIA TO HELP WITH BIOCONTROL IN FARMING

Why in News?

- ▶ Scientists in Kerala have completed the whole genome sequencing of a rare bacterium capable of producing antifungal and insecticidal compounds.
- ▶ This has opened up the potential to develop a new line of products for biocontrol applications in agriculture.

Obtained from soil:

- ▶ Researchers isolated some strains of actinomycetes (a kind of hairy bacteria) from the forest soils of the Neyyar wildlife sanctuary, one of the 12 mega diversity centres in the world.
- ▶ One of the isolates was identified as Streptosporangium nondiastaticum reported to have antimicrobial properties.

Helping Biocontrol:

- ▶ Bioinformatics analysis showed that the genome contained a plant chitinase, an enzyme capable of degrading fungi and insect exoskeleton.
- ▶ The scientists have cloned the gene and engineered the recombinant protein.
- ▶ The strain can produce metabolites that are toxic to plant pathogens, making it a candidate for biocontrol applications.
- ▶ Across the world, fungal phytopathogens cause significant agricultural crop loss, both in farmlands and post-harvest storage conditions.
- ▶ The use of micro organisms to control phytopathogens and pests offers an important alternative to chemical fungicides and pesticides which result in environmental pollution and development of resistance in fungal pathogens.

ASTEROID IMPACT DEFLECTION ASSESSMENT (AIDA)

Why in News?

- ▶ Among all the causes that will eventually cause the extinction of life on Earth, an asteroid hit is widely acknowledged as one of the likeliest.
- ▶ Over the years, scientists have suggested different ways to ward off such a hit, such as blowing up the asteroid before it reaches Earth, or deflecting it off with a spacecraft.
- ▶ Now, scientists have embarked on a plan to test their expertise with the second of these two methods.

Asteroid Impact Deflection Assessment (AIDA):

- ▶ It is an ambitious double-spacecraft mission to deflect an asteroid in space, to prove the technique as a viable method of planetary defence.
- ▶ The mission, which includes NASA and the European Space Agency (ESA), is known as the Asteroid Impact Deflection Assessment (AIDA).
- ▶ The target is the smaller of two bodies in the “double Didymos asteroids” that are in orbit between Earth and Mars.
- ▶ Didymos is a near-Earth asteroid system. Its main body measures about 780 m across; the smaller body is a “moonlet” about 160 m in diameter.
- ▶ The project aims to deflect the orbit of the smaller body through an impact by one spacecraft.
- ▶ Then a second spacecraft will survey the crash site and gather the maximum possible data on the effect of this collision.

Tools of the Mission:

- ▶ NASA is building the Double Asteroid Impact Test (DART) spacecraft for launch in summer 2021.

- ▶ It is planned to collide with the target at 6.6 km/s in September 2022.
- ▶ Flying along with DART will be an Italian-made miniature CubeSat, called LICIA Cube, to record the moment of impact.
- ▶ ESA's contribution is a mission called Hera, which will perform a close-up survey of the post-impact asteroid, acquiring measurements such as the asteroid's mass and detailed crater shape.
- ▶ Hera will also deploy a pair of CubeSats for close-up asteroid surveys and the very first radar probe of an asteroid.
- ▶ All this would allow researchers to model the efficiency of the collision.
- ▶ This can help turn this experiment into a technique that could be repeated, as needed, in the event of a real threat.

ISRO TO HOST EXHIBITION ON SPACE IN MUMBAI

Why in News?

- ▶ Isro will create a footprint in Mumbai as part of its centenary tribute to Vikram Sarabhai, the father of India's space programme.

Highlights:

- ▶ The space agency has organised an exhibition highlighting its achievements at the Nehru Science Centre, Worli, from September 15-17.
- ▶ In a media interaction on Friday, science centre director, Shivaprasad Khened, said the exhibition will be open to the public between 9.30am and 6pm.
- ▶ The exhibition is in collaboration with Isro's Ahmedabad-based Space Application Centre, where most of the payloads for Isro missions are designed and developed.
- ▶ The travelling exhibition will move to SIES School, Matunga, from September 18 to 20, and then to other educational institutions in and around Mumbai.

WATER FOUND FOR FIRST TIME ON POTENTIALLY HABITABLE PLANET, SAYS ASTRONOMERS

Why in News?

- ▶ Astronomers have for the first-time discovered water in the atmosphere of an exoplanet with Earth-like temperatures that could support life.

Highlights:

- ▶ K2-18b is the only planet orbiting a star outside the Solar System known to have both water and temperatures that could be potentially habitable.
- ▶ It is known to have both water and temperatures that could be potentially habitable,

- ▶ The discovery is the first successful atmospheric detection for an exoplanet orbiting in its star's 'habitable zone', at a distance where water can exist in liquid form, they said.
- ▶ The team used archive data from 2016 and 2017 captured by the ESA/NASA Hubble Space Telescope and developed open-source algorithms to analyse the starlight filtered through K2-18b's atmosphere.
- ▶ The results revealed the molecular signature of water vapour, also indicating the presence of hydrogen and helium in the planet's atmosphere.
- ▶ K2-18b's size and surface gravity are much larger than Earth's. Its radiation environment, too, maybe hostile.
- ▶ They believe that other molecules including nitrogen and methane may be present but, with current observations, they remain undetectable.

K2-18b:

- ▶ K2-18b was discovered in 2015 and is one of hundreds of super-Earths — planets with a mass between Earth and Neptune — found by NASA's Kepler spacecraft.
- ▶ Exoplanet K2-18b is eight times the mass of Earth.
- ▶ The planet orbits the cool dwarf star K2-18, which is about 110 light years from Earth in the Leo constellation.
- ▶ However, the researchers said, "K2-18b is not 'Earth 2.0' as it is significantly heavier and has a different atmospheric composition.
- ▶ They also said that further studies are required to estimate cloud coverage and the percentage of atmospheric water present.

CENTRAL EQUIPMENT IDENTITY REGISTER (CEIR)

Central Equipment Identity Register (CEIR):

- ▶ International Mobile Equipment Identity (IMEI) is supposed to be a unique identity of a mobile phone device.
- ▶ IMEI number being programmable, some miscreants do reprogram the IMEI number, which results in cloning of IMEI causing multiple phone devices with same IMEI number.
- ▶ As on date, there are many cases of cloned/duplicated IMEI handsets in the network.
- ▶ If such IMEI is blocked, a large number of mobile phones will get blocked being handsets with same IMEI causing inconvenience to many genuine customers.
- ▶ Thus, there is a need to eliminate duplicate/fake IMEI mobile phones from the network.
- ▶ Accordingly, a project called Central Equipment Identity Register (CEIR) system has been undertaken by the DoT for addressing security, theft and other concerns including reprogramming of mobile handsets.

Objectives:

- ▶ Blocking of lost/stolen mobile phones across mobile networks thus discouraging theft of mobile phones
- ▶ Facilitate in tracing of such reported lost/stolen mobile phones
- ▶ Prevention of mobile devices with duplicate and fake IMEIs in the network
- ▶ Curtail the use of counterfeit mobile devices
- ▶ Reduced health risks to the users with the control of use of counterfeit mobile phones
- ▶ Improved QoS and reduced call drops with reduction in use of counterfeit mobile devices.

LUNAR RECONNAISSANCE ORBITER (LRO)

Why in News?

- ▶ ISRO'S attempts to figure out what happened to Chandrayaan-2's Vikram will get a boost when NASA's Lunar Reconnaissance Orbiter (LRO) flies over the lander's landing site on the Moon.
- ▶ NASA will share any before and after flyover imagery of the area around the targeted Chandrayaan-2 Vikram lander landing site.

Lunar Reconnaissance Orbiter (LRO):

- ▶ The Lunar Reconnaissance Orbiter and Lunar Crater Observation and Sensing Satellite missions began on June 18, 2009.
- ▶ It is a robotic spacecraft currently orbiting the Moon.
- ▶ It studies the Moon's surface, clicks pictures, and collects data that help in figuring out the presence and possibility of water ice and other resources on the Moon, as well as plan future missions to it.
- ▶ The primary mission of the LRO, managed by NASA's Goddard Space Flight Center, located in Greenbelt, Maryland, was to measure the entire lunar surface to create a high-resolution 3-D map of the Moon.
- ▶ The map with ~50-centimeter resolution images would aid in the planning of future robotic and crewed missions.
- ▶ In addition, LRO would map the Polar Regions and search for the presence of water ice.

The Mission:

- ▶ The mission has provided technical innovations and made surprising discoveries that have changed our view of the Moon.
- ▶ The instruments on board the spacecraft return global data, such as day-night temperature maps, a global geodetic grid, high resolution color imaging and the moon's UV albedo.
- ▶ It is estimated that the LRO has fuel enough to stay on its mission for at least six more years.

Achievements of LRO:

- ▶ Some of LRO's technical innovations include the first global thermal mapping of a planetary body covering a full range of local times and seasons.
- ▶ It carries the first bi-static radar imaging measurements from Earth to a planetary orbiter.
- ▶ It has provided more than five years of laser altimetry measurements yielding more than 8 billion topographic points, better than any other object in the Solar System.
- ▶ On March 15, 2011, LRO provided more than 192 terabytes of data from its primary mission to its Planetary Data System, or PDS, to make the information available to researchers, students, media, and the general public.

TRANSGENIC MOSQUITOES TRANSFER GENES TO NATIVE MOSQUITO SPECIES

Why in News?

- ▶ Genes from genetically modified *Aedes aegypti* mosquito were found to have been transferred to naturally occurring *A. aegypti* mosquito population in three areas in Brazil where transgenic mosquitoes were released.

Transgenic Mosquitoes:

- ▶ A transgenic Mosquito is one that contains a gene or genes which have been artificially inserted instead of the mosquito acquiring them through reproduction.
- ▶ Transgenic strains of mosquitoes were developed to
 1. Replace or suppress wild vector populations
 2. Reduce Transmission
 3. Deliver Public Health Gains are an imminent prospect.

Background:

- ▶ About 4,50,000 transgenic male mosquitoes were released each week for 27 months (June 2013 to September 2015) in three areas in Brazil.
- ▶ Transgenic mosquitoes (TMs) were developed to minimize/eliminate the mosquito borne diseases. Genetic analysis of naturally occurring mosquitoes were done prior to the release and at six, 12, and 27-30 months after the releases.

Highlights:

- ▶ *A. aegypti* mosquitoes are responsible for transmitting dengue, chikungunya and Zika virus.
- ▶ Researchers from Yale University studied 347 naturally occurring *aegypti* mosquitoes for transfer of genes from the transgenic insects.
- ▶ The transgenic strains can be distinguished from naturally occurring mosquitoes by using fluorescent lights and filters.

- ▶ They found that some transgenic genes were found in 10-60% of naturally occurring mosquitoes.
- ▶ Also, the naturally occurring aegypti mosquitoes carrying some genes of the transgenic mosquitoes were able to reproduce in nature and spread to neighbouring areas 4 km away.

Issue:

- ▶ As per claims made by the British company Oxitec Ltd, which had developed the technology and field-tested it in several countries,
- ▶ The genetic strategy employed to control aegypti population known as RIDL (the Release of Insects carrying Dominant Lethal genes) is supposed to only reduce the population of the naturally occurring A. aegypti mosquitoes and not affect or alter their genetics.
- ▶ Also, offspring are not supposed to grow to adult mosquitoes and reproduce.
- ▶ The claim was that genes from the release strain would not get into the general population because offspring would die. But that did not happen.
- ▶ The genetic strategy works on the premise that the transgenic male mosquitoes released frequently in large numbers would compete with the naturally occurring male mosquitoes to mate with the females. Offspring from the mating of transgenic male mosquito and naturally occurring female mosquito do not survive to the adult stage.
- ▶ This is because tetracycline drug, which prevents the dominant lethal gene from producing the lethal protein during rearing in labs, is not present in sufficient quantity in nature.
- ▶ In the absence of tetracycline, there is overproduction of the lethal protein causing the larvae to die. At present, it is unclear if the presence of transgenic mosquito genes in the natural population will affect the disease transmission capacity or make mosquito control efforts more difficult.

METHANE-POWERED ROCKET ENGINE

Why in News?

- ▶ ISRO is planning to develop methane-powered rocket engines.

LOX Methane Engines:

- ▶ The space agency is developing two 'LOx methane' engines (liquid oxygen oxidiser and methane fuel) engines. One of the two projects is trying to convert the existing cryogenic engine, which uses liquid hydrogen for fuel, into a LOx methane engine.
- ▶ The other is a smaller engine of 3 tonnes thrust, which will feature an electric motor.
- ▶ These are being developed at ISRO's Liquid Propulsion Systems Centre at Trivandrum.
- ▶ ISRO currently prefers to use a fuel called Unsymmetrical Di-Methyl Hydrazine, along with Nitrogen tetroxide for oxidizer, in its liquid fuel (Vikas) engines, which are used in the lower stages of its rockets, PSLV and GSLV.

Why Methane?

- ▶ Di-Methyl Hydrazine like all hydrazine-based fuels, is said to be highly toxic and cancer-causing. Globally, governments are keen on banning hydrazine.
- ▶ Besides, methane beats hydrazine on every other count.
- ▶ Apart from being non-toxic, it has a higher specific impulse which means one kg of the gas can lift one kg of mass for a longer time.
- ▶ Methane, which can be synthesized with water and carbon dioxide in space, is often described as the space fuel of the future.
- ▶ It is easy to store, does not leave a residue upon burning, less bulky, and, importantly, can be synthesized up in space.
- ▶ Methane-fired engines need an igniter to start the fire.
- ▶ Hydrazine fuels are hypergolic, which means they start burning on their own upon coming in contact with oxygen.

Rocket Engine Development:

- ▶ Mumbai-based start-up Manastu Space is developing a propulsion system that will use Hydrogen peroxide as fuel.
- ▶ Currently, Manastu's engines are meant for steering satellites in orbit but they can be scaled up to power launch vehicles.
- ▶ According to the company, the space industry started with Hydrogen peroxide, but moved to a 'better' hydrazine.
- ▶ But Manastu has developed a chemical additive, which it is trying to patent — the additive will enable Hydrogen peroxide to elbow hydrazine out of the competition.

FIRST INDIGENOUS FUEL CELL SYSTEM LAUNCHED

Why in News?

- ▶ The First Indigenous Fuel Cell System launched on the Foundation Day of CSIR.

Highlights:

- ▶ This fuel cell system was developed by the CSIR in partnership with Indian industries under India's flagship program named "New Millennium Indian Technology Leadership Initiative (NMITLI)".
- ▶ Three laboratories of CSIR (at Pune, New Delhi and Karaikudi) and two private sector companies Thermax Limited (Pune) and Reliance Industries Limited (Mumbai) were involved in the development.
- ▶ The 5.0 kW fuel cell system generates power in a green manner using methanol/bio-methane, with heat and water as bi-products for further use.

- ▶ This system has an efficiency of 70%.
- ▶ The Fuel Cells developed are based on High Temperature Proton Exchange Membrane (HTPEM) Technology.
- ▶ The development is most suitable for distributed stationary power applications for small offices, commercial units, data centres, etc. where highly reliable power is essential with simultaneous requirement for air-conditioning.
- ▶ This system will also meet the requirement of efficient, clean and reliable backup power generator for telecom towers, remote locations and strategic applications as well.
- ▶ This development would replace Diesel Generating (DG) sets and help reduce India's dependence on crude oil.

RADIOACTIVE CESIUM TECHNOLOGY FOR MEASURING SOIL EROSION

Why in News?

- ▶ Indian scientists have now developed a method to measure the rate of soil erosion and associated decrease in organic content in soil by assessing levels of radioactive cesium in soil.

Radioactive Cesium Technology:

- ▶ Researchers at the ICAR-Indian Institute of Soil and Water Conservation, Dehradun have developed a way to monitor soil erosion and decrease in carbon content in soil by relating it with levels of radioactive cesium in soil.
- ▶ Carbon concentration in soil correlates with levels of isotope of cesium.
- ▶ Different sites were found to have varying levels of cesium pointing at different degrees of soil degradation in different sites.
- ▶ By applying various formulas, the cesium loss was then used to calculate erosion and associated carbon loss in soil.
- ▶ For measuring cesium levels in soil, gamma spectroscopy technique was used.

Significance:

- ▶ Radioactive cesium technology is a more rapid and less expensive method for soil erosion studies in the severely intensive croplands.
- ▶ It gives more accurate results for all types of erosion studies including historic, comparative and long-term soil and soil organic carbon erosion.
- ▶ This method can help in monitoring the effects of soil erosion and effectiveness of soil conservation strategies.

Why monitor Soil Erosion?

- ▶ Soil supports plants, insects and microbial life and is formed by natural forces over a long period of time.

- ▶ Carbon reaches soil through the microbial action on withering plant parts and remains in soil, changing its physio-chemical properties and also enhancing its fertility.
- ▶ This way soil also sequesters carbon helping in regulating carbon levels in the atmosphere.
- ▶ Soil erosion, which involves disaggregation and displacement of soil, leads to decrease in its organic content and eventually its fertility.
- ▶ Natural and human activities are contributing to soil erosion and posing problems for both food production and climate change.
- ▶ Therefore, monitoring of soil erosion induced-carbon loss from soil is important.

Project NETRA

Why in News?

- ▶ ISRO has initiated 'Project NETRA' – an early warning system in space to detect debris and other hazards to Indian satellites.

Project NETRA (Network for space object Tracking and Analysis):

- ▶ The project will give India its own capability in space situational awareness (SSA) like the other space powers – which is used to 'predict' threats from debris to Indian satellites.
- ▶ NETRA's eventual goal is to capture the GEO, or geostationary orbit, scene at 36,000 km where communication satellites operate.
- ▶ The space agency says our SSA will first be for low-earth orbits or LEO which have remote-sensing spacecraft.
- ▶ Under NETRA the ISRO plans to put up many observational facilities: connected radars, telescopes; data processing units and a control centre.
- ▶ They can, among others, spot, track and catalogue objects as small as 10 cm, up to a range of 3,400 km and equal to a space orbit of around 2,000 km.
- ▶ The NETRA effort would make India a part of international efforts towards tracking, warning about and mitigating space debris.

What NETRA consists of?

- ▶ In the plans are a high-precision, long range telescope in Leh and a radar in the North East.
- ▶ Along with them, we will also use the Multi-Object Tracking Radar (MOTR) that we have put up at the Satish Dhawan Space Centre in Sriharikota, and the telescopes at Ponmudi and Mount Abu to get a broad SSA picture.
- ▶ NORAD, or the North American Aerospace Defense Command, is an initiative of the U.S. and Canada that shares selective debris data with many countries.
- ▶ The new SSA centre would consolidate debris tracking activities that are now spread across ISRO centres.

- ▶ Currently there are 15 functional Indian communication satellites in the geostationary orbit of 36,000 km; 13 remote sensing satellites in LEO of up to 2,000 km; and eight navigation satellites in medium earth orbits.

Why Space Debris Matters?

- ▶ Space debris could be floating particles from dead satellites or rocket parts that stay in orbit for many years.
- ▶ Satellite agencies worry over even a speck of paint or fragment floating towards their spacecraft: it disables on board electronics and cripples the satellite worth several hundred crore rupees.
- ▶ Agencies constantly look for debris at the time of a launch and through the life of a satellite.

Enhancing Space situational awareness (SSA):

- ▶ India, as a responsible space power, should have SSA as a part of a national capability, as in the U.S. This is a vital requirement for protecting our space assets and a force multiplier.
- ▶ The SSA has a military quotient to it and adds a new ring to the country's overall security.
- ▶ It uses satellites, ground and air radars to secure its two countries against attacks from air, space or sea.
- ▶ With long-range tracking radars, the SSA also provides us the capability of an early warning system against ballistic missiles coming in at a height.
- ▶ Apart from radars and telescopes, he said India should also think of deploying satellites that track other satellites — as the U.S. and other space powers had done.
- ▶ Combined with other elements of military intelligence SSA would help us to understand motives behind any suspicious orbit changes of other satellites and to know if they were spying on or harming our spacecraft.

INS Khanderi

Why in News?

- ▶ Raksha Mantri Shri Rajnath Singh commissioned indigenously built submarine INS Khanderi in Mumbai.

INS Khanderi:

- ▶ The name Khanderi is inspired by the dreaded 'Sword Tooth Fish' a deadly fish known to hunt whilst swimming close to the bottom of the ocean. Khanderi is also the name of an island fort built by great Maratha ruler Chhatrapati Shivaji Maharaj.
- ▶ INS Khanderi is the second of Kalvari Class diesel-electric attack submarines of the Indian Navy. It has been built in India to the French Scorpene design and is the second submarine of the Project-75.

- ▶ Built indigenously by Mazagon Dock Shipbuilders Limited, INS Khanderi is a lethal addition to Navy's conventional submarine arsenal and is designed for silent and stealthy sub-surface operations.
- ▶ INS Khanderi is the follow-on to INS Kalvari, which was the first of the French origin Scorpene-class submarines being indigenously constructed in India and commissioned by the Prime Minister in 2017.

ASTEROID NAMED AFTER PANDIT JASRAJ

Why in News?

- ▶ The International Astronomical Union (IAU) has named an asteroid, discovered in 2006, after Indian classical singer Pandit Jasraj.

Highlights:

- ▶ The asteroid, or more formally known as a minor planet, is located between Mars and Jupiter, and was discovered on November 11, 2006, by the Catalina Sky Survey in the United States.
- ▶ The privilege of naming a planet is first given to discoverers, who have 10 years to propose a name.
- ▶ All names proposed are judged by the Working Group for Small Body Nomenclature (CSBN) of the IAU, comprising professional astronomers with research interests in minor planets and/or comets from around the world.

International Astronomical Union (IAU):

- ▶ The IAU is an international association of professional astronomers, at the PhD level and beyond, active in professional research and education in astronomy.
- ▶ Among other activities, it acts as the internationally recognized authority for assigning designations and names to celestial bodies (stars, planets, asteroids, etc.) and any surface features on them.
- ▶ To standardize planetary nomenclature, the IAU was assigned in 1919 the task of selecting official names for features on Solar System bodies.
- ▶ Planetary nomenclature, like terrestrial nomenclature, is a system of uniquely identifying features on the surface of a planet or natural satellite so that the features can be easily located, described, and discussed.

Pandit Jasraj:

- ▶ Pandit Jasraj (b. 1930) is an exponent of Indian classical vocal music.
- ▶ Jasraj is the recipient of numerous awards, honours, and titles, including the prestigious Padma Vibhushan and the Sangeet Natak Akademi Award.
- ▶ His distinctive voice traverses a remarkable four-and-a-half octaves.

4. ECONOMY

STEERING COMMITTEE ON FINTECH RELATED ISSUES

Why in News?

- ▶ The Steering Committee on Fintech related issues constituted by the Ministry of Finance, Department of Economic Affairs, submitted its Final Report.

Fintech companies:

- ▶ Financial technology (Fintech) is used to describe new tech that seeks to improve and automate the delivery and use of financial services.
- ▶ At its core, fintech is utilized to help companies, business owners and consumers better manage their financial operations, processes, and lives by utilizing specialized software and algorithms that are used on computers and, increasingly, smartphones.
- ▶ Fintech, the word, is a combination of “financial technology”.
- ▶ When fintech emerged in the 21st Century, the term was initially applied to the technology employed at the back-end systems of established financial institutions.
- ▶ Fintech now includes different sectors and industries such as education, retail banking, fundraising and nonprofit, and investment management to name a few.

Recommendations:

- ▶ The report outlines the current landscape in the Fintech space globally and in India, studies the various issues relating to its development and makes recommendations focusing on how fintech can be leveraged to enhance financial inclusion of MSMEs.
- ▶ The Committee report also identifies application areas and use cases in Governance and financial services and suggests regulatory upgrades enabling fintech innovations.
- ▶ The Committee has recommended that the RBI may consider development of a cash-flow based financing for MSMEs.
- ▶ It has also recommended that Insurance companies and lending agencies to be encouraged to use drone and remote sensing technology for crop area, damage and location assessments to support risk reduction in insurance/lending business.
- ▶ The Committee has highlighted the positive impact of Fintech innovations on sectors such as Agriculture and MSMEs. And it has recommended NABARD to take immediate steps to create a credit registry for farmers with special thrust for use of fintech along with core banking solutions (CBS) by agri-financial institutions, included Cooperative societies.
- ▶ The Committee recommends a special drive for modernisation and standardisation of land records by setting up a dedicated National Digital Land Records Mission based on a common National Land Records Standards with involvement of State Land and Registration departments.

- ▶ The Committee also recommends a comprehensive legal framework for consumer protection be put in place early keeping in mind the rise of fintech and digital services.
- ▶ It has also recommended adoption of Regulation technology (or RegTech) by all financial sector regulators to develop standards and facilitate adoption by financial sector service providers to adopt use-cases making compliance with regulations easier, quicker and effective.
- ▶ Similarly, it has also recommended that financial sector regulators develop an institutional framework for specific use-cases of Supervisory technology (or SupTech), testing, deployment, monitoring and evaluation.

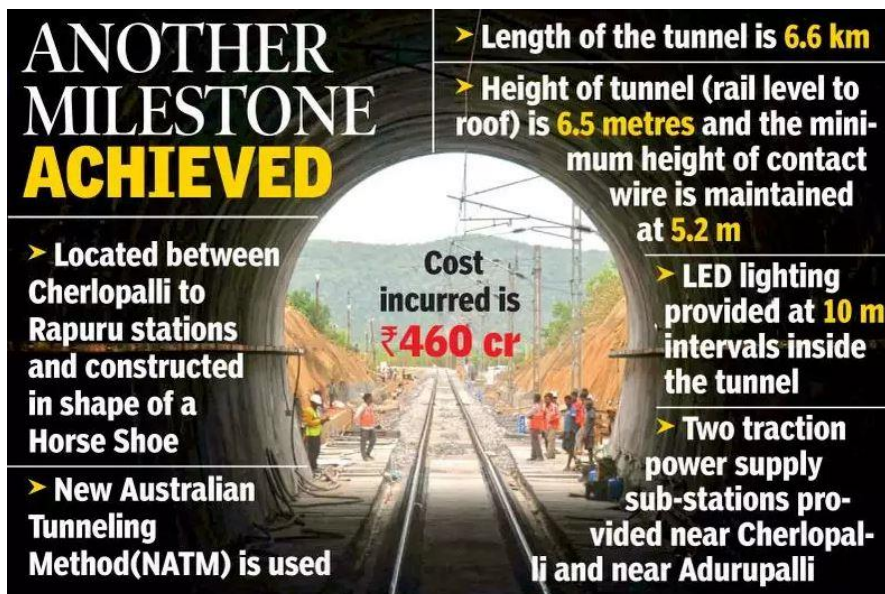
INDIA'S LONGEST ELECTRIFIED RAILWAY TUNNEL BETWEEN CHERLOPALLI AND RAPURU (AP)

Why in News?

- ▶ Vice President inaugurated the country's longest electrified rail tunnel between Cherlopalli and Rapuru and the electrified railway line between Venkatachalam and Obulavaripalli.

Highlights:

- ▶ The 6.7-km-long tunnel is an "engineering marvel" and said it would provide viable rail connectivity between the Krishnapatnam Port and the hinterland for the seamless movement of freight.



ANOTHER MILESTONE ACHIEVED

- ▶ Located between Cherlopalli to Rapuru stations and constructed in shape of a Horse Shoe
- ▶ New Australian Tunneling Method (NATM) is used
- ▶ Length of the tunnel is **6.6 km**
- ▶ Height of tunnel (rail level to roof) is **6.5 metres** and the minimum height of contact wire is maintained at **5.2 m**
- ▶ LED lighting provided at **10 m** intervals inside the tunnel
- ▶ Two traction power supply sub-stations provided near Cherlopalli and near Adurupalli

Cost incurred is **₹460 cr**

- ▶ It also reduces the distance for trains coming from Guntakal Division to Krishnapatnam by 72 km and eases traffic density in the Obulavaripalli-Renigunta-Gudur section.
- ▶ This newly commissioned line of 112 km reduces the travel time to five hours as compared to the 10 hrs earlier for a goods train from Krishnapatnam Port to Obulavaripalli.

- ▶ Besides facilitating operation of freight trains, the new line would also provide the shortest path on the Chennai-Howrah and Chennai-Mumbai rail routes.
- ▶ It would also ease congestion of both passenger and freight-carrying trains in the Vijayawada-Gudur-Renigunta-Guntakal sections.

REVISION OF ETHANOL PRICE

Why in News?

- ▶ The Cabinet Committee on Economic Affairs has given its approval for the following, including fixing higher ethanol price derived from different raw materials under the EBP Programme.

Ethanol Blended Petrol Programme (EBP Programme):

- ▶ Ethanol is an agro-based product, mainly produced from a by-product of the sugar industry, namely molasses. In years of surplus production of sugarcane, when prices are depressed, the sugar industry is unable to make timely payment of cane price to farmers.
- ▶ The Ethanol Blending Programme (EBP) seeks to achieve a blending of Ethanol with motor spirit with a view to reducing pollution, conserve foreign exchange and increase value addition in the sugar industry enabling them to clear cane price arrears of farmers.
- ▶ The Central Government has scaled up blending targets from 5% to 10% under the Ethanol Blending Programme (EBP).
- ▶ This programme has been extended to the whole of India except Union Territories of Andaman Nicobar and Lakshadweep islands with effect from April 2019 to promote the use of alternative and environment-friendly fuels.
- ▶ This intervention also seeks to reduce import dependence for energy requirements and give a boost to the agriculture sector.
- ▶ The procedure of procurement of ethanol under the EBP has been simplified to streamline the entire ethanol supply chain and remunerative ex-depot price of ethanol has been fixed.
- ▶ To facilitate achieving of new blending targets, a “grid” which networks distilleries to OMC depots and details quantities to be supplied has been worked out. State-wise demand profile has also been projected, keeping in view distances, capacities and other sectoral demands.
- ▶ The results have been quite encouraging, with supplies doubling every year.

CBDT enters into 26 APAs

Why in News?

- ▶ The Central Board of Direct Taxes (CBDT) has entered into 26 Advance Pricing Agreements (APAs) in the first 5 months of the financial year (April to August 2019).

- ▶ Out of these 26 APAs, 1 is a BAPA entered into with the United Kingdom and the remaining 25 are Unilateral Advance Pricing Agreements (UAPAs).

APA:

- ▶ An advance pricing agreement (APA) is an ahead-of-time agreement between a taxpayer and a tax authority on an appropriate transfer pricing methodology (TPM) for a set of transactions at issue over a fixed period of time.

Bilateral and multilateral APAs:

- ▶ Bilateral APAs (BAPA) are those that also include agreements between the taxpayer and one or more foreign tax administrations under the authority of the mutual agreement procedure (MAP) specified in income tax treaties.
- ▶ The taxpayer benefits from such agreements since they are assured that income associated with covered transactions is not subject to double taxation.

Significance:

- ▶ 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.

INDIA AMONG TOP 10 NATIONS IN GOLD RESERVES

Why in News?

- ▶ India has surpassed the Netherlands to move into the list of top 10 countries in terms of total gold reserves.

Highlights:

- ▶ According to the World Gold Council, India has gold reserves totalling 2 tonnes, which is marginally higher than the Netherlands' reserves of 612.5 tonnes.
- ▶ According to the World Gold Council, the U.S. leads the country list with total gold reserves of 8,133.5 tonnes followed by Germany with 3,366.8 tonnes.
- ▶ In terms of individual countries, India ranks 9th since the International Monetary Fund (IMF) occupies the third position after the U.S. and Germany.
- ▶ India's entry into the list of top ten countries comes at a time when the quantum of monthly purchases is the lowest in over three years.
- ▶ India's gold reserves have grown substantially in the past couple of decades from 357.8 tonnes in the first quarter of 2000 to the current 618.2 tonnes.
- ▶ India's neighbour Pakistan has seen its standing unchanged at the 45th position with total gold reserves of 64.6 tonnes.

TRAVEL AND TOURISM COMPETITIVE INDEX 2019

Why in News?

- ▶ A report released by the World Economic Forum (WEF) ranking the travel & tourism competitiveness of 140 economies was recently released.

Travel and Tourism Competitive Index 2019:

- ▶ Published biennially by WEF, Travel & Tourism Competitiveness Report and Index benchmarks the Travel & Tourism (T&T) competitiveness of 140 economies.
- ▶ The study scored countries on four indicators – enabling environment; travel and tourism policy and enabling conditions; infrastructure; natural and cultural rankings.
- ▶ The four broad indicators looked at 14 variables, which were further subdivided into 90 indicators such as property rights, efficiency of the legal framework, quality of electricity supply, female labour force participation, visa requirements and the number of World Heritage cultural sites.

India's progress:

- ▶ The biennial report shows that India has made the greatest improvement since 2017 among the top 25 per cent of the countries that were previously ranked.
- ▶ Overall, India is ranked 34, up six places from 2017.
- ▶ India's highest improvement was in enabling environment, by 10 places to 98.
- ▶ The least improvement is in infrastructure as well as in natural and cultural rankings, by just three places each, but India's rank was already high in the latter.

Global Scene:

- ▶ Spain, France, Germany, Japan and the United States are the world's most travel-ready nations. Japan remains Asia's most competitive travel and tourism economy, ranking 4th globally. China is the largest travel and tourism economy in Asia-Pacific and 13th most competitive globally.

EXTERNAL BENCHMARK-BASED LENDING

Why in News?

- ▶ The RBI has made it mandatory for all banks to link floating rate loans – to retail customers and loans to micro, small and medium enterprises (MSME) – to an external benchmark.
- ▶ Some banks have already started to link home and auto loan rates to the repo rate, which is an external benchmark.
- ▶ Banks can choose from one of the four external benchmarks – repo rate, three-month treasury bill yield, six-month treasury bill yield or any other benchmark interest rate.
- ▶ The interest rate under external benchmark shall be reset at least once in three months.

Why such move?

- ▶ At present, interest rates on loans are linked to a bank's marginal cost of fund-based interest rate (MCLR).
- ▶ It has been observed that due to various reasons, the transmission of policy rate changes to the lending rate of banks under the current MCLR framework has not been satisfactory.
- ▶ The RBI, therefore, has issued a circular making it mandatory for banks to link all new floating rate personal or retail loans and floating rate loans to MSMEs to an external benchmark effective October 1, 2019.
- ▶ The move is aimed at faster transmission of monetary policy rates.

Repo wasn't Useful:

- ▶ Even before RBI had made it mandatory, several banks had launched repo-linked lending rate products.
- ▶ This was done in an effort to ensure faster transmission of policy rate cuts to borrowers.
- ▶ The repo (or repurchase) rate is the rate at which the Reserve Bank of India (RBI) lends money to other banks. Hence, cuts in the repo rate are meant to lead to cuts in home loan and other lending rates as banks get to borrow money cheaply from the RBI.
- ▶ By pegging the rate to an external benchmark RBI is hoping for a faster transmission of rate cuts than has happened so far under the MCLR system.

MCLR:

- ▶ MCLR (Marginal Cost of funds-based Lending Rate) replaced the earlier base rate system to determine the lending rates for commercial banks.
- ▶ RBI implemented MCLR on 1 April 2016 to determine rates of interests for loans.
- ▶ It is the minimum interest rate that a bank can lend at.
- ▶ MCLR is a tenor-linked internal benchmark, which means the rate is determined internally by the bank depending on the period left for the repayment of a loan.
- ▶ MCLR is closely linked to the actual deposit rates and is calculated based on four components: the marginal cost of funds, negative carry on account of cash reserve ratio, operating costs and tenor premium.

FIRST MEGA FOOD PARK OF TELANGANA STATE

Why in News?

- ▶ Union Minister of Food Processing Industries today inaugurated the first Mega Food Park in Telangana promoted by M/s Smart Agro Food Park Pvt. Ltd. at Village Lakkampally, Nandipet Mandal of Nizamabad District, Telangana state.

Mega Food Park:

- ▶ The Mega Food Park will leverage an additional investment of about Rs. 250 crores in 22 food processing units in the park and generate a turnover of about Rs. 14000 crores.
- ▶ The Park will also provide direct and indirect employment to 50,000 youth and benefit about 1 lakh farmers.
- ▶ Mega Food parks shall facilitate doubling of farmer's income by 2022 which is a primary agenda of Govt in the field of agriculture.
- ▶ Telangana government also providing financial support to farmers, ultimately farmers will be benefitted.

Significance:

- ▶ Mega Food Parks shall further complement the Govt's scheme by reducing post-harvest losses and hedging the farmer's risk. Mega Food Park shall provide gainful employment to women and hence help support their livelihood.
- ▶ The Mega Food Park Scheme is being implemented in order to give a major impetus by adding value and reducing food wastage at each stage of the supply chain with particular focus on perishables. Mega Food Parks create modern infrastructure facilities for food processing along the value chain from farm to market with strong forward and backward linkages through a cluster-based approach. Common facilities and enabling infrastructure is created at Central Processing Centre and facilities for primary processing and storage is created near the farm in the form of Primary Processing Centers (PPCs) and Collection Centers (CCs).
- ▶ Under the Scheme, Government of India provides financial assistance upto Rs. 50.00 Crore per Mega Food Park project.

The Smart Agro Mega Food Park:

- ▶ It will benefit the people of Nizamabad District and the people of nearby Districts of Nirmal, Jagtial, RajannaSircilla Kamareddy of Telangana & Nanded district of Maharashtra state.
- ▶ This Mega Food Park has been set up in 78 acre of land at a cost of Rs. 108.95 crore.
- ▶ The facilities being created by the developer at Central Processing Centre (CPC) of this Mega Food Park include
 1. Raw Material Warehouse of 5000 MT,
 2. Finished Good Warehouse- 5000 MT,
 3. Multi Commodity Cold Storage-5000 MT,
 4. Deep Freeze Store-500 MT,
 5. Turmeric-Curcumin,
 6. Oleoresin Extraction unit-5 MT/Day,
 7. QC Laboratory and other related food processing facilities.

- ▶ The Park also has a common administrative building for office and other uses by the entrepreneurs and 3 PPCs at Medak, Gouraram and Nandipet having facilities for primary processing and storage near the farms.
- ▶ The modern infrastructure for food processing created at Park will benefit the farmers, growers, processors and consumers of Telangana and adjoining areas.

NATIONAL INFRASTRUCTURE PIPELINE OF Rs. 100 LAKH CRORE

Why in News?

- ▶ To achieve the GDP of \$5 trillion by 2024-25, India needs to spend about \$1.4 trillion (Rs. 100 lakh crore) over these years on infrastructure.
- ▶ To achieve this task, a Task Force under the chairmanship of Secretary (DEA) has been constituted by Union Finance Minister to draw up a National Infrastructure Pipeline for each of the years from FY 2019-20 to FY 2024-25.

Highlights:

- ▶ In the past decade (FY 2008-17), India invested about \$1.1 trillion on infrastructure.
- ▶ The challenge is to step-up annual infrastructure investment so that lack of infrastructure does not become a binding constraint on the growth of the Indian economy.
- ▶ Hon'ble Prime Minister in his Independence Day speech highlighted that Rs.100 lakh crore would be invested on infrastructure over the next five years.
- ▶ Infrastructure projects will include social and economic infrastructure projects. To implement an infrastructure program of this scale, it is important that projects are adequately prepared and launched.

National Infrastructure Pipeline:

- ▶ The National Infrastructure Pipeline would include greenfield and brownfield projects costing above Rs 100 crore each.
- ▶ Other qualifications for inclusion in the pipeline for the current year will include availability of a DPR, feasibility of implementation, inclusion in the financing plan and readiness/availability of administrative sanction.
- ▶ Each Ministry/ Department would be responsible for monitoring of projects so as to ensure their timely and within-cost implementation.
- ▶ The Task Force will also enable robust marketing of the pipeline of projects requiring private investment through the India Investment Grid (IIG), National Investment & Infrastructure Fund (NIIF), etc.

‘ANGAN’- INTERNATIONAL CONFERENCE ON ENERGY EFFICIENCY IN BUILDING SECTOR

Why in News?

- ▶ An international conference ANGAN (Augmenting Nature by Green Affordable New-habitat) focussed on Energy Efficiency in Building Sector
- ▶ The Conference is being organised by the Bureau of Energy Efficiency (BEE), Ministry of Power, Government of India in collaboration with GIZ under the Indo German Technical Cooperation.

Highlights:

- ▶ The International Conference will provide a platform to deliberate on interdependence between organizations, systemic sustainability and feedback loops for better resource efficiency.
- ▶ Given the formidable challenge of providing adequate energy of desired quality to the consumers at reasonable costs, improving the efficiency in high energy consumption sectors like buildings have become important component of our integrated energy policy.
- ▶ Due to lack of awareness and knowledge about latest technologies, financial assistance, suppliers and purchase of energy-efficient equipment, etc. efforts on energy efficiency and conservation in this sector have been moderate and therefore require greater push.
- ▶ This event aims to provide thrust in this direction so as to address such challenges faced by the stakeholders.

BEE:

- ▶ The BEE is a statutory body under the Ministry of Power, Government of India. It assists in developing policies and strategies with the primary objective of reducing the energy intensity of the Indian economy.
- ▶ BEE coordinates with designated consumers, designated agencies, and other organizations to identify and utilize the existing resources and infrastructure, in performing the functions assigned to it under the Energy Conservation Act.

INDIA’S SECOND MULTI-MODAL TERMINAL

Why in News?

- ▶ The Prime Minister Shri Narendra Modi will dedicate to the nation India’s second riverine Multi-Modal terminal built at Sahibganj in Jharkhand
- ▶ This is the second of the three Multi-Modal Terminals being constructed on river Ganga under Jal Marg Vikas Project (JMVP).

Jal Marg Vikas Project (JMVP):

- ▶ Jal Marg Vikas Project (JMVP) for capacity augmentation of navigation on National Waterway-1 (NW-1) is being implemented with the technical assistance and investment support of the World Bank.
- ▶ One of the major problems for commercially viable and safe navigation on NW-1 is low depth upstream of Farakka due to low discharges from tributaries and difficult hydro morphological characteristics of river Ganga.
- ▶ A pilot study on the Allahabad-Ghazipur stretch was commissioned by Inland Waterways Authority of India (IWAI) to find solutions to this problem.
- ▶ Based on the findings of this study, a proposal for development of NW-1 was taken up for seeking technical assistance and investment support from the World Bank
- ▶ Finance Minister announced JMVP in Budget Speech in July 2014, to enable commercial navigation of at least 1500 tonnes vessels in Ganga.
- ▶ States that come under this project are: Uttar Pradesh, Bihar, Jharkhand, West Bengal

Significance of the project:

- ▶ The alternative mode of transport will be environment-friendly and cost-effective. The project will contribute to bringing down the logistics cost in the country.
- ▶ Mammoth Infrastructure development like multi-modal and inter-modal terminals, Roll on – Roll off (Ro-Ro) facilities, ferry services, navigation aids.
- ▶ Socio-economic impetus; huge employment generation.

MARKET INTERVENTION PRICE SCHEME

Why in News?

- ▶ Kashmir's famed apple is battling to get exported outside the State this year as militants are campaigning against the fruit's trade.
- ▶ The government is planning to procure almost 12 lakh metric tonnes of apple this season, under the MISP, with the help of the National Agriculture Cooperative Marketing Federation of India (NAFED).

Market Intervention Price Scheme:

- ▶ MIP is a price support mechanism implemented on the request of State Governments for procurement of perishable and horticultural commodities in the event of a fall in market prices. The Scheme is implemented when there is at least 10% increase in production or 10% decrease in the ruling rates over the previous normal year.
- ▶ MIP works in a similar fashion to Minimum Support Price based procurement mechanism for food grains but is an adhoc mechanism.

- ▶ Its objective is to protect the growers of these horticultural/agricultural commodities from making distress sale in the event of bumper crop during the peak arrival period when prices fall to very low level.
- ▶ Thus, it provides remunerative prices to the farmers in case of glut in production and fall in prices.

Working:

- ▶ Proposal of MIP is approved on the specific request of State/UT Government, if the State/UT Government is ready to bear 50% loss (25% in case of North-Eastern States), if any, incurred on its implementation.
- ▶ Further, the extent of total amount of loss shared is restricted to 25% of the total procurement value which includes cost of the commodity procured plus permitted overhead expenses.

Implementation of MIS:

- ▶ The Department of Agriculture & Cooperation is implementing the scheme.
- ▶ Under MIP, funds are not allocated to the States.
- ▶ Instead, central share of losses as per the guidelines of MIP is released to the State Governments/UTs, for which MIP has been approved, based on specific proposals received from them.
- ▶ Under the Scheme, a pre-determined quantity at a fixed Market Intervention Price (MIP) is procured by NAFED as the Central agency and the agencies designated by the state government for a fixed period or till the prices are stabilized above the MIP whichever is earlier.
- ▶ The area of operation is restricted to the concerned state only.
- ▶ The MIS has been implemented in case of commodities like apples, kinnoo/malta, garlic, oranges, galgal, grapes, mushrooms, clove, black pepper, pineapple, ginger, red-chillies, coriander seed etc.

GOVERNMENT UNVEILS PACKAGE TO BOOST EXPORTS AND REVIVE HOUSING SECTOR

Why in News?

- ▶ Union Finance Minister Nirmala Sitharaman has announced a third set of government decisions to revive the economy.

Highlights:

- ▶ The decisions follow two previous mega announcements to encourage private sector investment and to bring further stability into the banking system through several public sector bank mergers.

- ▶ Exports from India declined by 6.05% in August 2019.
- ▶ The package includes a ₹50,000 crore export incentive scheme and a ₹10,000 crore special window to provide last mile funding for unfinished housing projects.

Housing Projects:

- ▶ A special fund will be set up for providing last-mile funding for housing projects. It will focus on the construction of unfinished housing projects.
- ▶ The fund will be available for affordable and middle-income projects does not belonging to NPA category (Non-Performing Assets) and does not undergoing National Company Law Tribunal proceedings.
- ▶ The fund will be created on the lines of the National Investment and Infrastructure Fund.
- ▶ The fund will be operated professionally by experts from the housing and banking sectors.
- ▶ The fund will source contributions from the government, LIC and other institutions, private capital from banks, sovereign funds, etc.
- ▶ The government's contribution to the fund would be ₹10,000 crore and the other investors would contribute "roughly the same amount".
- ▶ External commercial borrowing guidelines will be relaxed to facilitate financing for home buyers eligible under the Pradhan Mantri Awas Yojana.
- ▶ Interest on house building advances will be lowered and linked with the 10 Year Government Security yields.

Exports Sector:

- ▶ The new scheme for the Remission of Duties or Taxes on Export Product (RoDTEP) will offset the amount paid by exporters as duties on exports.
- ▶ The revenue forgone by the government for the scheme will be Rs. 50000 Cr. per year.
- ▶ RoDTEP will replace the Merchandise Exports from India Scheme (MEIS). The rate of reward under MEIS varies between 2% and 7% of the free-on-board (FOB) value, depending on the item and the country it is being exported to.
- ▶ The existing dispensation in textiles of MEIS and the old ROSL [Rebate of State Levies] will continue up to December 31, 2019.
- ▶ An electronic refund module will be set up for the quick and automated refund of input tax credits to the exporters.
- ▶ Banks will be required to provide higher insurance cover for working capital loans to exporters.
- ▶ RBI will modify the priority sector lending norms to increase credit to exporters by Rs. 36000-68000 Cr.

NIRVIK SCHEME

Why in News?

- ▶ To enhance the loan availability of exporters, and the MSME sector the Export Guarantee Corporation of India (ECGC) has launched a new scheme called 'Nirvik'.
- ▶ To revive the export sector, Commerce Ministry also launched the common digital platform for the issuance of certificates of origin

Nirvik Scheme:

- ▶ If there is any loss, then ECGC provided credit guarantee of up to 60% loss approximately.
- ▶ Now under new scheme Nirvik consumers and exporters will covered up to 90% and if there is any loss then in that case ECGC will refund 90% to the banks including principal and interest.
- ▶ Both pre and post shipment credit will also be covered under the new scheme.
- ▶ Banks will get up to 50 % within 30 days of complain lodge.
- ▶ Enhanced cover will ensure that Foreign and Rupee export credit interest rates will be below 4% and 8% respectively for exporters. The scheme envisages simplified procedure for settlement of claim and for provisional payment up to 50% within 30 days on production of proof of end-use of the advances in default by the Insured Bank.

Electronic Certificates of Origin (CoO):

- ▶ This platform will be a single access point for all exporters, for all Free Trade Agreements (FTAs)/ Preferential Trade Agreements (PTAs) and for all agencies concerned.
- ▶ As we know, for exports to countries with which India has free trade agreements (FTA), exporters have to show a certificate that the consignment originated in India.
- ▶ With the launch of this platform, these certificates can be obtained online, and all the issuing authorities will be on the same portal. Certificate of Origin will be issued electronically which can be in paperless format if agreed to by the partner countries.
- ▶ Authorities of partner countries will be able to verify the authenticity of certificates from the website.

37th GST COUNCIL MEETING

Why in News?

- ▶ The 37th GST Council met on 20th September 2019 in Goa. It was chaired by the Finance Minister Ms. Nirmala Sitharaman.

Key Recommendations:

- ▶ Relaxations in annual returns filing for MSMEs for the financial year 2017 – 18 and 2018 – 19.
- ▶ A committee of officers would be appointed for examining the simplification of forms for annual return and reconciliation statement.

- ▶ Extension of the last date for filing of appeals against orders of the Appellate Authority before the GST Appellate Tribunal as the Appellate Tribunals are yet not functional.
- ▶ The new return system would be introduced from April 2020 instead of the previously proposed October 2019.
- ▶ Suitable amendments would be made to the CGST Act, UTGST Act and corresponding SGST Acts in view of the creation of the union territories of Jammu & Kashmir and Ladakh.
- ▶ Integrated refund system with disbursement by a single authority to be introduced from 24th September 2019. The Council also took an in-principle decision to link Aadhaar with the registration of taxpayers under GST and also to examine the possibility of making the 12-digit unique identification number mandatory for claiming refunds.
- ▶ Changes were also made to the GST rates for various goods and services.

GST Council:

- ▶ The Goods and Services Tax Council is a constitutional body for making recommendations to the Union and State Governments on issues related to Goods and Service Tax.
- ▶ It is chaired by the Union Finance Minister.
- ▶ The other members are the Union State Minister of Revenue or Finance, and Ministers in-charge of Finance or Taxation of all the States.

NATIONAL CONCLAVE ON ENERGY EFFICIENCY IN MSME SECTOR

Why in News?

- ▶ The National Conclave on Energy Efficiency in MSME sector was inaugurated by Union Ministers in Hyderabad on 23rd September.

Highlights:

- ▶ The two-day Conclave is being organized by the Bureau of Energy Efficiency (BEE) with participation from MSME entrepreneurs, industry associations, technology and service providers, sectoral energy experts and senior officials from the Government.
- ▶ The Ministers also released Energy Conservation Guidelines for MSMEs.
- ▶ They also launched the Knowledge Management Portal “SIDHIEE” under the BEE’s MSME Programme.
- ▶ The SIDHIEE portal will host useful information including fifty videos of multimedia tutorials for MSMEs for early adoption of energy-efficient technologies.
- ▶ The Conclave is expected to be useful in creating a platform for pooling the knowledge and synergising the efforts of various stakeholders.
- ▶ The participants will discuss various issues such as strategies to promote energy efficiency, technical and financial capabilities of MSMEs, capacity-building and awareness programmes.

Bureau of Energy Efficiency (BEE):

- ▶ It is a statutory body under the Ministry of Power, Government of India.
- ▶ It assists in developing policies and strategies with the primary objective of reducing the energy intensity of the Indian economy.
- ▶ It coordinates with designated consumers, designated agencies, and other organizations to identify and utilize the existing resources and infrastructure, in performing the functions assigned to it under the Energy Conservation Act.

INDUSTRY 4.0

Why in News?

- ▶ A Pilot Project for ushering in 'Industry 4.0' in the country, is launched for implementation at the Modern Coach Factory (MCF), Raebareli.

Industry 4.0:

- ▶ 'Industry 4.0' commonly referred to as the fourth industrial revolution, is a name given to the current trend of automation, interconnectivity and data exchange in manufacturing technologies to increase productivity.
- ▶ Industry 4.0 is a complex Cyber-Physical Systems which synergizes production with digital technologies, the Internet of Things, Artificial Intelligence, Big Data & Analytics, Machine Learning and Cloud Computing.
- ▶ Therefore, the architecture to be conceptualized and formulated in MCF initially would be gradually expanded in a phased manner to encompass all complexities that constitute Industry 4.0 in all manufacturing spheres in the country.
- ▶ Full transition to the digital factory using 'Industry 4.0' across entire value chain from design to production will help enhance productivity hugely by providing insight into production process and also make the decisions in real-time basis.
- ▶ This will also help in minimizing human errors by effective monitoring to ensure that resources are put to the best utilization measured by, what is called the Overall Equipment Effectiveness (OEE).
- ▶ Such a National Policy for Advanced Manufacturing envisages that manufacturing sector should contribute at least 25% to GDP.
- ▶ All over the world, countries who have been able to achieve phenomenal growth, could do that with the advent of rapid strides in manufacturing sector. This initiative in Railways may have wider ramifications to spur growth in defence production as well as in private manufacturing sector also.

5. GEOGRAPHY & ENVIRONMENT

PROJECT REPLAN

Why in News?

- ▶ Khadi and Village Industries Commission (KVIC) launched a first ever ‘Terracotta Grinder’ in Varanasi.

Terracotta Grinder:

- ▶ The grinder was designed by KVIC Chairman and fabricated by a Rajkot-based engineering unit. This machine will grind the wasted and broken pottery items for re-using in pottery-making. Earlier the wasted pottery items were grinded in normal khal-musal (mortar and pestle) and its fine powder was mixed with the normal clay.
- ▶ Mixing this powder in stipulated ratio to normal clay makes the resulting pottery items stronger.
- ▶ This Terracotta grinder will make grinding of wasted pottery items faster than the traditional mortar and pestle.
- ▶ It will lessen the cost of production and will also help in solving the problem of shortage of clays. By mixing 20 percent of this wasted terracotta powder, the potter will make a saving of at least Rs 520. This will also create more job opportunities in the villages.

Project REPLAN (REducing PLAstic in Nature):

- ▶ KVIC, as part of its commitment to Swachh Bharat Abhiyaan, had started manufacturing of plastic-mixed handmade paper under its project REPLAN (REducing PLAstic in Nature).
- ▶ In this project, the waste plastic is collected, cleaned, chopped, beaten and treated for softness.
- ▶ After that, it is mixed with the paper raw material i.e. cotton rags pulp in a ratio of 80 % (pulp) and 20% (plastic waste). The institute has sold over six lakh handmade plastic mixed carry bags since September 2018.

GLOBAL LIVEABILITY RANKING 2019

Why in News?

- ▶ New Delhi has dropped by six places to rank 118th on a list of the world’s most liveable cities due to increase in cases of petty crimes and poor air quality.
- ▶ While New Delhi registered the biggest decline in Asia, Mumbai also fell two places since last year to rank 119th on the list topped by Vienna (Austria) for the second consecutive year.

Ranking:

- ▶ The Economist Intelligence Unit (EIU) publishes an annual Global Liveability Ranking.
- ▶ The EIU ranking of 140 cities is based on their scores in five broad categories – stability, healthcare, culture and environment, education, and infrastructure.

- ▶ Each factor in a city is rated as acceptable, tolerable, uncomfortable, undesirable or intolerable.

Global scenario:

- ▶ Among the BRIC countries, Rio de Janeiro (Brazil) was positioned at the 89th place, Moscow (Russia) at 68th, St Petersburg (Russia) 71st. The Chinese cities in the list include Suzhou at 75th rank, Beijing 76th, Tianjin 79th, Shanghai 80th, Shenzhen 84th, Dalian 90th, Guangzhou 96th and Qingdao 97th. Several major global cities received mixed scores. London and New York ranked 48th and 58th out of the 140 cities in the survey.

Why decline in liveability in India?

▶ Abuses against journalists:

1. The EIU also flagged “an escalation in abuses against journalists in recent years” in India.
2. It cited a decline in the country’s ranking in Reporters Without Borders’ Press Freedom Index where India now sits in the bottom quartile of countries.
3. The study said that Asian cities overall have scored slightly below the global average while three Asian cities — Port Moresby in Papua New Guinea (135th), Pakistan’s Karachi (136th) and Bangladesh’s Dhaka (138th) — are among the ten least liveable globally.

▶ Rise in Crime rates:

1. The EIU said decline in Mumbai’s rank was mainly due to a downgrade in its culture score, while New Delhi has fallen in the index because of downgrades to its culture and environment score as well as fall in the stability score owing to rising crime rates.

▶ Climatic changes:

1. Several cities, such as New Delhi in India and Cairo in Egypt received substantial downgrades on their scores owing to problems linked to climate change, such as poor air quality, undesirable average temperatures and inadequate water provision,” the report said.

▶ Constrained liveability conditions:

1. A score between 50-60 points, which is the case for India, indicates constrained liveability conditions.
2. The 2018 update to the WHO Global Ambient Air Quality Database shows that New Delhi has the sixth highest annual mean concentration of fine particulate matter among cities around the world.
3. Companies pay a premium to employees who move to cities where living conditions are particularly difficult and there is excessive physical hardship or a notably unhealthy environment.
4. The suggested allowance for Indian cities is 15%.

GOVERNMENT TO DEVELOP A MASTER PLAN FOR TIGERS AT HIGH ALTITUDE

Why in News?

- ▶ Union Environment Ministry released a report on Status of Tiger Habitats in high altitude ecosystems.

Highlights:

- ▶ The study is led by the Global Tiger Forum (GTF), with range country governments of Bhutan, India and Nepal, along with WWF.
- ▶ It has been supported by the Integrated Tiger Habitat Conservation Programme (ITHPC) of the IUCN.
- ▶ This provides the action strategy for a high altitude tiger master plan, with gainful portfolio for local communities.
- ▶ It ensures centrality of tiger conservation in development, through an effective coordination mechanism, involving stakeholders and line departments operating within the landscape.

Why Such Report?

- ▶ Various studies reveal that even ecology at high altitude is compatible for the tiger growth.
- ▶ The habitat of tiger of varied, encompassing several biomes and ecological conditions.
- ▶ However, most of the high-altitude habitats, within the range have not been surveyed for an appraisal of tiger presence, prey and habitat status.
- ▶ Tiger habitats in high altitude require protection through sustainable land use, as they are a high value ecosystem with several hydrological and ecological processes providing ecosystem services.
- ▶ Several high-altitude habitats in South Asia have the spatial presence of tiger, active in-situ efforts are called for ensuring their conservation.

Global Tiger Forum:

- ▶ The GTF was formed in 1993 on recommendations from an international symposium on Tiger Conservation at New Delhi, India.
- ▶ The GTF is the only intergovernmental international body established with members from willing countries to embark on a global campaign to protect the Tiger.
- ▶ Utilizing co-operative policies, common approaches, technical expertise, scientific modules and other appropriate programmes and controls the GTF is focused on saving the remaining 5 sub-species of Tigers distributed over 13 Tiger Range countries of the world.

DELHI DECLARATION TO RESTORE DEGRADED LAND BY 2030

Why in News?

- ▶ The two week long UNCCD COP ended with a commitment to achieve land degradation neutrality by 2030.

Delhi Declaration:

- ▶ The Delhi Declaration, a consensus document, agreed upon by more than 100 countries “welcomed” the proposed adoption of a “voluntary” land degradation neutrality target by India. India has committed to restoring at least 26 million hectares of degraded land by 2030. The Declaration doesn’t detail commitments by other countries.
- ▶ Almost 122 nations, including India, have made voluntary commitments in previous years to ensure that a certain percentage of their degraded land was restored.
- ▶ India had agreed, again on a voluntary basis, to restore 20 million hectares by 2020.
- ▶ Nearly 96 million hectares of land is deemed ‘degraded’ in India.
- ▶ Countries will address insecurity of land tenure, promote land restoration to reduce land-related carbon emissions and mobilise innovative sources of finance from public and private sources.

ATLANTIC MERIDIONAL OVERTURNING CIRCULATION (AMOC)

Why in News?

- ▶ While greenhouse warming caused by human activity is heating up the Indian oceans, it is likely to boost a key system of currents in the Atlantic Ocean that plays a key role in determining the weather across the world.

Atlantic Meridional Overturning Circulation (AMOC):

- ▶ AMOC is sometimes referred to as the “Atlantic conveyor belt”.
- ▶ It is one of the Earth’s largest water circulation systems where ocean currents move warm, salty water from the tropics to regions further north, such as western Europe and sends colder water south. It aids in distributing heat and energy around the earth, as the warm water it carries releases heat into the atmosphere, and in absorbing and storing atmospheric carbon
- ▶ For thousands of years, AMOC has remained stable, but since the past 15 years, it has been weakening.
- ▶ This change could have dramatic consequences for Europe and other parts of the Atlantic rim.

Impact of AMOC Slowdown:

- ▶ AMOC last witnessed a slow down 15,000 to 17,000 years ago.
- ▶ It caused harsh winters in Europe, with more storms or a drier Sahel in Africa due to the downward shift of the tropical rain belt. The mere possibility that the AMOC could collapse

should be a strong reason for concern in an era when human activity is forcing significant changes to the Earth's systems.

Need for delaying AMOC slowdown:

- ▶ Researchers found that rising temperatures in the Indian Ocean can help boost the AMOC and delay slow down. Warming in the Indian Ocean generates additional precipitation, which, in turn, draws more air from other parts of the world, including the Atlantic.
- ▶ This higher level of precipitation in the will reduce precipitation in the Atlantic and increase salinity in the waters. This saline water in the Atlantic, as it comes north via AMOC, will get cold much quicker than usual and sink faster, acting as a jump start for AMOC, intensifying the circulation.

Uncertainty Ahead:

- ▶ Scientists don't know for how long this enhanced warming in Indian Ocean will continue.
- ▶ If other tropical oceans' warming, especially the Pacific's, catches up with the Indian Ocean, the advantage for AMOC will stop. Moreover, it isn't clear whether slowdown of AMOC is caused by global warming alone or it is a short-term anomaly related to natural ocean variability.

CYCLONIC STORM 'HIKAA'

Why in News?

- ▶ A cyclonic storm named 'HIKAA' over the northeast and adjoining east-central Arabian Sea moves closely westwards.

Highlights:

- ▶ HIKAA moved nearly westwards with a speed of 17 kmph during the past 6 hours.
- ▶ It is now about 490 km west-southwest of Veraval in Gujarat.
- ▶ It is likely to intensify further during the next 24 hours and weaken gradually thereafter.
- ▶ It is very likely to move nearly westwards and cross the Oman coast during the early hours of 25th September as a deep depression.
- ▶ HIKAA is a tropical cyclone and has now been classified as a 'very severe storm'.
- ▶ There is a warning of strong winds along and off the Gujarat coast during the next 12 hours.
- ▶ Sea conditions are also likely to be 'rough to very rough' and fishermen have been advised not to venture into the northeast and adjoining east-central Arabian Sea till 24th morning and into the northwest & adjoining west-central Arabian Sea till 25th morning.

WASTE MANAGEMENT ON SIACHEN GLACIER

Why in News?

- ▶ The Indian Army has removed 130 tonnes of garbage from the Siachen Glacier and is cutting potential trash in rations.

Challenges:

- ▶ On average, 236 tonnes of waste is generated every year on Siachen glacier.
- ▶ The biggest challenge is the high altitude as most posts are located between 18,000 and 21,000 feet.
- ▶ Bana post is the highest on the glacier close to 22,000 feet.
- ▶ At 18,000-19,000 feet, Indian and Pakistani posts face each other.
- ▶ Beyond 20,000 feet, it is only India.
- ▶ Nothing degrades at sub-zero temperatures, so everything had to be brought down.

Waste Management on Siachen:

- ▶ The army is looking to cut waste in the rations and utilities delivered on the glacier and make Siachen garbage-free in 12-15 years. Earlier, waste disposal work was fragmented and intermittent. Based on a 2018 concept note on waste management on the glacier, the Army has made bringing down waste a part of the Standard Operating Procedure (SOP) for troops.
- ▶ The capacity of each person to carry is 10-15 kg due to the extreme weather.
- ▶ Since then, nearly 130 tonnes of waste has been brought down from the Siachen Glacier and disposed of.
- ▶ The three types of wastes are disposed of differently.
 1. Biodegradable waste is rolled using baling machines.
 2. Non-biodegradable, non-metallic waste: three incinerators have been set up. The waste is burnt in the incinerators, but they do not produce Carbon Monoxide. The ash is used as manure.
 3. Metallic waste: there are three extrication centres. Industrial crushers will be procured to crush it and send it down.
- The Army has collaborated with the civil administration there and barrels have been painted and set up in villages around to segregate waste.

Siachen Glacier:

- ▶ Siachen is a 76.4-kilometre-long glacier in the Karakoram range.
- ▶ It covers around 10,000 square kilometres of uninhabited terrain.
- ▶ It sits extending across two disputed boundaries – with Pakistan and China.
- ▶ For the last 33 years, Indian troops have been deployed on the world's highest and coldest battlefield. They safeguard the nation's frontiers in temperatures of -40 to -50 degrees Celsius.

- ▶ The Siachen Glacier presents a unique set of environmental challenges for the human body, which has to make great adjustments to function at such extreme altitudes.
- ▶ Low oxygen levels, an increase in blood pressure due to reduced barometric pressure at high altitude, extreme cold, high levels of ultraviolet radiation and low humidity are just some of the adversities that Indian Army endures.

WEEK-LONG IPCC MEET ON CLIMATE CHANGE BEGINS IN NEW DELHI

Why in News?

- ▶ India is hosting the Second Lead Author Meeting of the Intergovernmental Panel on Climate Change (IPCC) Working Group III Sixth Assessment Report at New Delhi from 30th September to 4th October 2019.

Highlights:

- ▶ More than 200 experts/authors including 12 from India and others from around 65 countries are expected to participate in this week-long meeting.
- ▶ The Sixth Assessment Report (AR6) will examine topics such as the link between consumption and behaviour and greenhouse gas emissions, and the role of innovation and technology.
- ▶ The report will assess the connection between short to medium-term actions and their compatibility with the long-term temperature goal in the Paris Agreement.
- ▶ It will assess mitigation options in sectors such as energy, agriculture, forestry and land use, buildings, transport and industry.

IPCC:

- ▶ The IPCC is the UN body for assessing the science related to climate change.
- ▶ It was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988 to provide political leaders with periodic scientific assessments concerning climate change, its implications and risks, as well as to put forward adaptation and mitigation strategies.
- ▶ It has 195 member states.
- ▶ For the assessment reports, IPCC scientists volunteer their time to assess the thousands of scientific papers published each year to provide a comprehensive summary of what is known about the drivers of climate change, its impacts and future risks, and how adaptation and mitigation can reduce those risks.
- ▶ The IPCC has three working groups. They are:
 1. Working Group I: Dealing with the physical science basis of climate change
 2. Working Group II: Dealing with impacts, adaptation and vulnerability

3. Working Group III: Dealing with the mitigation of climate change

- ▶ It also has a Task Force on National Greenhouse Gas Inventories that develops methodologies for measuring emissions and removals.

FIT INDIA PLOG RUN

Why in News?

- ▶ The Minister of Youth Affairs and Sports Shri Kiren Rijiju will flag off the Fit India Plog Run on the occasion of the 150th birth anniversary of Mahatma Gandhi.

Highlights:

- ▶ The Fit India Plog Run will be held on October 2.
- ▶ Plogging involves picking up plastic and other waste from the surroundings while jogging.
- ▶ This event has generated a lot of interest and is expected to bring together athletes, school and college students, actors, corporates, industry chambers, etc
- ▶ Plogging is a combination of jogging with picking up litter.
- ▶ It started in Sweden in 2016 and spread to other countries.
- ▶ Plogger Ripu Daman Behlvi started the concept in New Delhi, which then spread to the rest of the country.

6. INTERNATIONAL RELATIONS

INDIA TAKES OVER COP PRESIDENCY FROM CHINA

Why in News?

- ▶ Union Minister for Environment, Forest & Climate Change (MoEF&CC), and Executive Secretary, UN Convention to Combat Desertification (UNCCD), jointly inaugurated the 14th Conference of Parties (COP14) to UNCCD.

Conference of the Parties (COP):

- ▶ The COP is the supreme decision-making body of the UNFCCC (United Nations Framework Convention on Climate Change).
- ▶ All States that are Parties to the Convention are represented at the COP, at which they review the implementation of the Convention and any other legal instruments that the COP adopts and take decisions necessary to promote the effective implementation of the Convention.
- ▶ A key task for the COP is to review the national communications and emission inventories submitted by Parties. Based on this information, the COP assesses the effects of the measures taken by Parties and the progress made in achieving the ultimate objective of the Convention.

India and COP 14:

- ▶ The Indian union Environment Minister who is also the elected COP President for next two years, expressed India's resounding commitment to finding a long-term solution for minimizing the impact of desertification and land degradation.
- ▶ India being the global host for COP 14 will take over the COP Presidency from China for the next two years till 2021.
- ▶ Through hosting COP 14, India will highlight its leadership in navigating the land management agenda at global level. It will also provide a stage to mainstream sustainable land management in country's national development policies.
- ▶ The objective of the COP 14, is to discuss on various issues of land such as sustainable land management, reversing land degradation, mitigating drought, halting desertification, addressing sand and dust storms, linkages with gender, tenure, etc.

UNCCD:

- ▶ United Nations Convention to Combat Desertification (UNCCD) was adopted in Paris on June 1994 and ratified by 196 countries & European Union.
- ▶ This convention can be called as "Mother convention" of the other two Rio Conventions that emerged as a major outcome of the 1992 Rio Earth Summit viz. United Nations Framework Convention on Climate Change (UNFCCC) and Convention on Biological Diversity (CBD).

INDIA ANNOUNCES CONTRIBUTION OF 22 mn USD to GFTAM

Why in News?

- ▶ India has announced a contribution of 22 million US Dollars to the Global Fund for AIDS, TB and Malaria (GFTAM) for the 6th replenishment cycle, an increase of 10% over the amount contributed by us in the 5th cycle.

Global Fund:

- ▶ The Global Fund is a partnership designed to accelerate the end of AIDS, tuberculosis and malaria as epidemics. As an international organization, the Global Fund mobilizes and invests more than US\$4 billion a year to support programs run by local experts in more than 100 countries. In partnership with governments, civil society, technical agencies, the private sector and people affected by the diseases, we are challenging barriers and embracing innovation.
- ▶ The Global Fund to Fight AIDS, Tuberculosis and Malaria were created in 2002 to raise, manage and invest the world's money to respond to three of the deadliest infectious diseases the world has ever known.
- ▶ The idea for the Global Fund arose from a wellspring of grass-roots political advocacy coming face-to-face with the imperatives of global leadership.

- ▶ AIDS, TB and malaria are all preventable and treatable – but solving this problem requires the commitment not only of world leaders and decision-makers but also of those working on the ground to help the men, women and children living with these diseases.
- ▶ The idea was discussed at a G8 summit in Okinawa, Japan, in 2000. The real commitment began to coalesce at the African Union summit in April 2001, continued at the United Nations General Assembly Special Session in June of that year.
- ▶ This was finally endorsed by the G8 at their summit in Genoa, Italy, on July 2001.

JOINT STATEMENT ON COOPERATION BETWEEN INDIA AND RUSSIA

Why in News?

- ▶ Joint statement on cooperation for 2019-24 with Russia, which was issued in Vladivostok, Russia after Prime Minister Shri Narendra Modi's annual bilateral summit with Russian President Mr Vladimir Putin.

Natural Gas Sector:

- ▶ Both sides recognize the significance of Liquefied Natural Gas (LNG) supplied from Russia to India and agree to strengthen LNG imports to India to promote India's bid to transform itself into a gas-based economy.
- ▶ Russia will encourage its public and private sector companies to participate in gas projects in India, particularly in the development of gas pipeline networks and city gas distribution infrastructure in India. India's private and public companies will explore the possibility of collaborating in LNG projects, including in the Arctic.
- ▶ In regard to cooperation in the Arctic, Indian companies will examine the possibility of development of closer cooperation with Russian companies, including the LNG Arctic projects of JSC NOVATEK. Both Sides welcome the interest of JSC NOVATEK to enhance LNG supplies to India and joint development of gas market in India including but not limited to LNG infrastructure projects in collaboration with Indian companies.

Training, Technology, Third Country Cooperation:

- ▶ Both Sides will strengthen and diversify existing training exchange program and create new ways of enhancing knowledge exchange, joint research in energy sector, including those in emerging technologies.
- ▶ Both Sides agree to explore possibility of undertaking joint projects in third countries in the Energy Sector.

14th CONFERENCE OF PARTIES (COP14) TO UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION (UNCCD)

Why in News?

- ▶ The 14th Conference of Parties (COP14) of the United Nations Convention to Combat Desertification (UNCCD) is being held in New Delhi, India between 2nd and 13th September 2019.

Highlights:

- ▶ Over 3,000 participants from all over the world are expected to participate in COP14.
- ▶ The Parties to the Convention will agree on the actions each will take over the next two years and beyond to take planet earth on to a sustainable development path.
- ▶ Ministers from 196 countries, scientists and representatives of national and local governments, non-governmental organizations, city leaders, the private sector, industry experts, women, youth, journalists, faith and community groups will talk at the conference.
- ▶ UNCCD is the sole legally binding international agreement that links environment and development to sustainable land management.
- ▶ It addresses specifically arid, semi-arid and dry sub-humid areas, known as drylands, home to some of the most vulnerable ecosystems and peoples.
- ▶ It was established in 1994 and entered into force in 1996.
- ▶ It is one of the three Rio Conventions along with United Nations Framework Convention on Climate Change (UNFCCC) and Convention on Biological Diversity (CBD).
- ▶ India became a signatory to UNCCD on 14th October 1994 and ratified it on 17th December 1996.
- ▶ The chief agendas for COP14 are reversing land degradation and its outcomes while accelerating positive achievements for people and for ecosystems with a view to delivering on the United Nations-mandated Sustainable Development Goals.

PM unveils 'Act Far East' policy

Why in News?

- ▶ In the presence of Russian President Vladimir Putin, Prime Minister Narendra Modi unveiled the 'Act Far East' policy to boost India's engagement with the Russian region, at the plenary session of the Fifth Eastern Economic Forum (EEF).

Background:

- ▶ PM Narendra Modi was in Russia as the chief guest of the 5th Eastern Economic Forum.
- ▶ It is an international forum held each year in Vladivostok, Russia, for the purpose of encouraging foreign investment in the Russian Far East.

- ▶ Modi is the first Indian prime minister to visit to the Russian Far East Region.

Highlights:

- ▶ India concluded around 50 agreements worth \$5 billion at the EEF-2019.
- ▶ PM announced a \$1 billion line of credit for the development of the resource-rich region.
- ▶ Modi appreciated Mr. Putin's vision for the welfare for Russia's Far East, saying the President had opened up investment opportunities for India in the region.
- ▶ India's connection to Russia's Far East go back a long way. Indian firms have invested over \$7 billion in taking stake in Russian oil and gas fields.
- ▶ India's largest state-owned companies, as well as private business conglomerates, have been investing in the Far East, which includes ONGC's investments in oil and gas projects, the development of coal and gold deposits by Tata Power and Sun Group, diamond polishing factories set up recently by KGK group and M Suresh, among others.
- ▶ India ventured into Russia when its flagship overseas firm ONGC Videsh in 2001 acquired a 20 per cent stake in Sakhalin-1 oil and gas field in Far East Russia.
- ▶ OVL later bought Imperial Energy, which has fields in Siberia, as also stakes in Vankor oilfield in eastern Siberia.
- ▶ IOC and its partners have picked up 29.9 per cent stake in a separate Taas-Yuryakh oilfield in East Siberia.
- ▶ Russian oil firm Rosneft in 2017 bought Essar Oil, which operates in Vadinar oil refinery in Gujarat and some 5,500 petrol pumps, for USD 12.9 billion.

Why India is so interested in Russian Far East?

- ▶ This is a region situated in the cold Siberian climate but more significantly, it shares borders with China, Mongolia, North Korea and Japan (maritime).
- ▶ On its own, it could be the eight largest – just behind India – in terms of area, and fourth least densely populated country. Both China and the US have been competing to have an upper hand in this region. Realising its geostrategic significance, India opened a consulate in Vladivostok in 1992. India was the first country to have a resident consulate in Vladivostok then. An understanding for Vladivostok-Chennai sea link was reached in 2018 when late Sushma Swaraj visited Russia as foreign minister. This Vladivostok-Chennai sea link is somewhat a counter to China's Maritime Silk Route (MSR) plan as part of One Belt One Road project. China's ambitious MSR plan is about establishing and hence directly controlling Asia-Africa sea route. Vladivostok-Chennai shipping link is likely to pass through or very close to the South China Sea, which China has turned into an international geostrategic hotspot by claiming exclusive control over the resource-rich maritime zone in the Pacific Ocean. Vietnam, the Philippines, Malaysia, Brunei and Taiwan have counter claims over the sea.

- ▶ There is an alternate possibility as well that Vladivostok-Chennai link would become an extension of existing India-Japan Pacific to Indian Ocean Corridor, which China considers as a challenge to its maritime OBOR plan in the region.
- ▶ Russian Far East is a resource rich region in a hostile climate. It is rich in oil, natural gas, timber, gold and diamond among other resources. India requires all of them.
- ▶ A busy Vladivostok-Chennai link means India strengthening its checks and balances equation with China.

MILITARY MEDICINE FOR SCO MEMBER STATES

Why in News?

- ▶ The first conference of Military Medicine for Shanghai Co-operation Organisation (SCO) Member States will be held in Delhi.

Significance:

- ▶ The conference will be the first Military co-operation event hosted by India, under the SCO Defence Co-operation Plan 2019-2020, after it became a SCO Member State in 2017.
- ▶ The conference will be conducted by the Indian Armed Forces under the aegis of Headquarters Integrated Defence Staff (HQ IDS), with the aim to share best practices in the field of military medicine, build capacities and overcome common challenges.
- ▶ During the conference, the Indian Armed Forces will also demonstrate the Rapid Action Medical Team and organise a visit for the delegates to the Army Research and Referral Hospital.
- ▶ Deliberations will take place between military medicine experts of SCO Member States on rendering of combat medical support, humanitarian assistance during disasters and measures to improve patient safety.
- ▶ The SCO Member States will be represented by senior military medical practitioners. Dialogue Partners Nepal and Sri Lanka will also be sending their delegations to participate in the Conference.

PAKISTAN DENIES USE OF AIRSPACE TO INDIAN PRESIDENT

Why in News?

- ▶ Federal Aviation Minister of Pakistan denied the use of Pakistani airspace to Indian President Ram Nath Kovind for his flight to Iceland.

Highlights:

- ▶ The reason being stated behind the denial is India's continued aggression in the Kashmir issue and oppression against the Kashmiri people.

- ▶ The Pakistani Minister said that India continued to flout international laws and was least bothered about its conduct in Kashmir.
- ▶ Pakistan is also considering not to allow any of the Indian airlines to use their airspace.

India's Response:

- ▶ The spokesperson of Ministry of External Affairs said that India regret the decision of the Pakistan government to deny over flight clearance for a VVIP special flight, which is otherwise granted routinely by any normal country.
- ▶ The spokesperson also called on Pakistan to recognise the futility of such unilateral actions.

Background:

- ▶ After the Balakot airstrikes, India and Pakistan had closed their respective airspaces to each other. Pakistan kept the ban in place for nearly five months.
- ▶ After the Jammu and Kashmir Reorganisation Bill, Pakistan had partially shut its airspace to India.
- ▶ However, Pakistan allowed Prime Minister Narendra Modi to use its airspace for his visit to France in August 2019 as a goodwill gesture.

SIXTH INDIA-CHINA STRATEGIC ECONOMIC DIALOGUE

Why in News?

- ▶ The sixth India-China Strategic Economic Dialogue (SED) came to a conclusion with both sides agreeing that the SED has emerged as a crucial mechanism to facilitate bilateral trade and investment flows and enhance economic cooperation between the two sides.

Highlights:

- ▶ The SED was set up in the year 2010 between the erstwhile Planning Commission of India and the National Development and Reform Commission (NDRC), China
- ▶ The SED has since then served as an effective mechanism for enhancing bilateral practical cooperation.
- ▶ NITI Aayog after its formation has taken the Dialogue forward giving it a greater momentum.
- ▶ Under the aegis of the SED, senior representatives from both sides come together to constructively deliberate and share individual best practices and identify sector-specific opportunities for enabling ease of doing business and facilitating trade and investment.

Mutual Agreements:

▶ Policy Coordination:

1. The two sides undertook in-depth discussions reviewing trade and investment climates in order to mutually identify complementarities and harness synergies to this effect future engagement.

▶▶ **Working Group on Infrastructure:**

1. The two sides noted the significant progress made in the feasibility study on Chennai-Bangalore-Mysore railway upgradation project and personal training of Indian senior railway management staff in China, both of which have been completed.
2. The two sides agreed to identify new projects for cooperation as well as support enterprises to expand cooperation in the transport sector.

▶▶ **Working Group on High-Tech:**

1. The two sides assessed the achievements made since the 5th SED and exchanged views on regulatory procedures of ease of doing business, development of artificial intelligence, high-tech manufacturing, and next-generation mobile communications of both countries.

▶▶ **Working Group on Resource Conservation and Environmental Protection:**

1. The two sides discussed and reviewed the progress made in the fields of water management, waste management, construction & demolition waste and resource conservation.

▶▶ **Working Group on Energy:**

1. Both countries identified future areas of collaboration and resolved to work on Renewable Energy space, Clean coal technology sector, Smart Grid & Grid integration and Smart meters & E-mobility sectors.

▶▶ **Working Group on Pharmaceuticals:**

1. It was also decided that both sides should promote pragmatic cooperation, strengthen complementary advantages in pharmaceutical industry and explore cooperation for promoting Indian generic drugs and Chinese APIs.

16th AEM-INDIA CONSULTATIONS

Why in News?

- ▶▶ Economic Ministers from ten ASEAN Member States and the Minister of Commerce and Industry of the Republic of India (“the Ministers”) met at Bangkok in Thailand for the sixteenth AEM-India Consultations.

Important takeaways:

- ▶▶ Two-way merchandise trade between ASEAN and India grew by 9.8 per cent in 2018
- ▶▶ The Ministers were also pleased to note the recovery of Foreign Direct Investment (FDI) inflows from India in 2018
- ▶▶ This placed India as ASEAN’s sixth-largest trading partner and sixth largest source of FDI among ASEAN Dialogue Partners.
- ▶▶ According to India’s preliminary data, FDI inflows into India from ASEAN in 2018 was approximately 36.98 per cent of total FDI flow into India.

- ▶ The Ministers agreed to initiate the review of the ASEAN-India Trade in Goods Agreement (AITIGA) to make the AIFTA more user-friendly, simple, and trade facilitative for businesses

ASEAN-India Trade in Goods Agreement (AITIGA):

- ▶ The ASEAN–India Free Trade Area (AIFTA) is a free trade area among the ten member states of the Association of Southeast Asian Nations (ASEAN) and India.
- ▶ The ASEAN–India Free Area emerged from a mutual interest of both parties to expand their economic ties in the Asia-Pacific region.
- ▶ India’s Look East policy was reciprocated by similar interests of many ASEAN countries to expand their interactions westward.
- ▶ After India became a sectoral dialogue partner of ASEAN in 1992, India saw its trade with ASEAN increase relative to its trade with the rest of the world. Between 1993 and 2003, ASEAN-India bilateral trade grew at an annual rate of 11.2%.
- ▶ Acknowledging this trend and recognising the economic potential of closer linkages, both sides recognised the opportunities for deepening trade and investment ties and agreed to negotiate a framework agreement to pave the way for the establishment of an ASEAN–India Free Trade Area (FTA). The signing of the ASEAN-India Trade in Goods Agreement paves the way for the creation of one of the world’s largest FTAs.
- ▶ The ASEAN-India FTA will see tariff liberalisation of over 90 percent of products traded between the two dynamic regions, including the so-called “special products,” such as palm oil (crude and refined), coffee, black tea and pepper.

MOTIHARI-AMALEKHGUNJ PETROLEUM PIPELINE

Why in News?

- ▶ PM Modi and his Nepalese counterpart KPS Oli will “switch on” the Motihari-Amalekhgunj petroleum pipeline from their offices in New Delhi and Kathmandu.

Highlights:

- ▶ The pipeline will transport fuel from Barauni refinery in Bihar’s Begusarai district to Amalekhgunj in southeastern Nepal, situated across the border from Raxaul in East Champaran district.
- ▶ The 69-km pipeline will drastically reduce the cost of transporting fuel to landlocked Nepal from India.
- ▶ The Amalekhgunj fuel depot will have the capacity to store up to 16,000 kilolitres of petroleum products.
- ▶ The pipeline will help in tackling the oil storage problem in Nepal and doing away with transportation of petroleum products through tankers.

- ▶ It will ensure smooth, cost-effective and environment-friendly supply of petroleum products to Nepal. The pipeline project was first proposed in 1996, but progress was slow. Things began to move after PM visited Kathmandu in 2014.
- ▶ The following year, the two governments signed an agreement to execute the project; however, political tensions, including India's alleged "economic blockade" of Nepal, acted as roadblocks in the implementation.
- ▶ In 2017 Indian Oil Corporation (IOC) signed a petroleum trade agreement to supply about 1.3 million tonnes of fuel annually to Nepal with a promise to double the volume by 2020.
- ▶ In July, the two countries successfully concluded a "testing transfer" through the oil pipeline.

INDIA JOINS THE GLOBAL AMR R&D

Why in News?

- ▶ India has joined the Global Antimicrobial Resistance (AMR) Research and Development (R&D) Hub as a new member.

Global AMR R&D:

- ▶ The Global AMR R&D Hub was launched in May 2018 in the margins of the 71st session of the World Health Assembly, following a call from G20 Leaders in 2017.
- ▶ The Global AMR R&D Hub supports global priority setting and evidence-based decision-making on the allocation of resources for AMR R&D through the identification of gaps, overlaps and potential for cross-sectoral collaboration and leveraging in AMR R&D.
- ▶ The operation of the Global AMR R&D Hub is supported through a Secretariat, established in Berlin and currently financed through grants from the German Federal Ministry of Education and Research (BMBF) and the Federal Ministry of Health (BMG).

Significance of joining Global AMR R&D:

- ▶ By partnering with the Global AMR R&D Hub, India looks forward to working with all partners to leverage their existing capabilities, resources and collectively focus on new R&D intervention to address drug-resistant infections
- ▶ AMR is the ability of a microbe to resist the effects of medication that once could successfully treat the microbe.
- ▶ Today, the emergence and spread of antimicrobial resistance continue unabated around the world.
- ▶ Given the important and interdependent human, animal, and environmental dimensions of antimicrobial resistance, India considers it reasonable to explore issues of antimicrobial resistance.

WORLD OZONE DAY

Why in News?

- ▶ The Union Minister of State (MoS) for Environment, Forest and Climate Change, Mr. Babul Supriyo was speaking at an event in New Delhi to mark World Ozone Day.

Cooling Action Plan:

- ▶ The minister highlighted the fact that India became one of the first countries in the world to launch a comprehensive Cooling Action plan in March, 2019, which has a long term vision to address the cooling requirement across sectors such as residential and commercial buildings, cold-chain, refrigeration, transport and industries.
- ▶ The India Cooling Action Plan (ICAP) lists out actions which can help reduce the cooling demand, which will also help in reducing both direct and indirect emissions.
- ▶ The India Cooling Action seeks to
 1. Reduce cooling demand across sectors by 20% to 25% by 2037-38
 2. Reduce refrigerant demand by 25% to 30% by 2037-38
 3. Reduce cooling energy requirements by 25% to 40% by 2037-38
 4. Recognize “cooling and related areas” as a thrust area of research under national S&T Programme
 5. Training and certification of 100,000 servicing sector technicians by 2022-23, synergizing with Skill India Mission.

World Ozone Day:

- ▶ Every year September 16 is marked as the International Day for the Preservation of the Ozone Layer or World Ozone Day.
- ▶ This day was designated by the UN in 2009.
- ▶ This date was chosen because it was the day in 1987 when nations signed the Montreal Protocol on Substances that Deplete the Ozone Layer.
- ▶ Theme for this year: 32 Years and Healing

DELHI-DHAKA TIES BEST EVER NOW: BANGLADESH MINISTER

Why in News?

- ▶ Bangladesh and India are currently enjoying “best ever” relations, Foreign Minister of Bangladesh Dr A.K. Abdul Momen said during an interaction with the media in Dhaka.

Highlights:

- ▶ The observations form the backdrop to the October 3-6, 2019 visit of Prime Minister Sheikh Hasina that will include a summit-level meeting with Prime Minister Narendra Modi.
- ▶ Sheikh Hasina is also expected to participate in the India Economic Forum.

- ▶ Bangladesh has recently been in the spotlight after the final list of the National Register of Citizens (NRC) in Assam was published on 31st August 2019.
- ▶ The exercise excluded more than 1.9 million individuals.
- ▶ However, India's External Affairs Minister S. Jaishankar had assured Bangladesh that the future of the NRC-excluded Bengali-speaking people in Assam is an internal issue of India.
- ▶ Subsequently, however, Home Minister Amit Shah had said the people excluded from the NRC will not find space in India.
- ▶ Bangladesh has steadfastly refused to be drawn into the debate.

India-Bangladesh:

- ▶ The relations between Bangladesh and India, the South Asian neighbours have been friendly, although sometimes there are border disputes.
- ▶ The historic land boundary agreement was signed on 6 June 2015 which opened a new era in the relations and further stopped all irritants in ties.
- ▶ They are common members of SAARC, BIMSTEC, IORA and the Commonwealth.
- ▶ The two countries share many cultural ties. In particular, Bangladesh and the East Indian state of West Bengal are Bengali-speaking.

India-BLEU

Why in News?

- ▶ The 16th session of the Joint Economic Commission (JEC) between India and Belgium Luxembourg Economic Union (BLEU) was convened in New Delhi on 17th September 2019.

Highlights:

- ▶ The three countries (India – Belgium – Luxembourg) reiterated the importance of the JEC towards the development of bilateral economic and trade relations through facilitating dialogue and enhancing cooperation on a wide range of issues of mutual interest, such as, transportation and logistics, renewable energy, aerospace and satellites, audio and visual industry, agro and food processing industry, life sciences, ICT, traditional medicine, Ayurveda and yoga, and tourism.
- ▶ JEC sessions are convened based on an agreement signed in 1990 in New Delhi.
- ▶ It is a biennial event (happens once in two years).
- ▶ It is held in the capital cities of the three countries alternatively.
- ▶ It is the main vehicle for discussing economic and commercial issues between India and BLEU.
- ▶ The JEC was set up in 1997.

Trade between India and Belgium – Luxembourg:

- ▶▶ The bilateral trade between India and Belgium grew 41% in 2018 – 19 compared to 2017 – 18.
- ▶▶ The bilateral trade between India and Luxembourg grew 150% for the same time period.
- ▶▶ India is Belgium's second-largest export destination and fourth-largest trade partner outside the European Union with a significant contribution from the Indian diaspora.

Leading exports from Belgium to India:

- ▶▶ Gem and jewellery (rough diamonds)
- ▶▶ Chemical and chemical products
- ▶▶ Machinery and mechanical products

Major exports from India to Belgium:

- ▶▶ Gem and jewellery (finished products)
- ▶▶ Base metals and articles
- ▶▶ Chemicals and chemical products
- ▶▶ There are around 160 Belgian companies in India.
- ▶▶ Many Indian software companies have established base in Belgium to cater to the Belgian and European markets.

INDIA, MONGOLIA TO EXPLORE SPACE TOGETHER

Why in News?

- ▶▶ The President of Mongolia, H.E. Mr. Khaltmaagiin Battulga, is on a visit to India from 19 to 23 September 2019.

List of MoUs/Documents signed between India and Mongolia during the State Visit of President of Mongolia to India:

- ▶▶ **On Space Co-operation:**
 - ✓ India and Mongolia signed MoUs on space cooperation which would allow India to support Mongolia in resource management and satellite communication.
- ▶▶ **Cultural Exchange Protocol:**
 - ✓ To promote cooperation and cultural exchanges in the field of music, dance, theater, arts, library, museums, etc.
- ▶▶ **MoU in the field of Disaster Management:**
 - ✓ To promote co-operation in the field of space exploration for peaceful and civilian purposes. MoU was signed between Dept of Space (India) and Communications and Information Technology Authority (Mongolia).
- ▶▶ Comprehensive Work Plan between Ministry of Fisheries, Animal Husbandry and Dairying (India) and Ministry of Food, Agriculture and Light Industry (Mongolia):

- ▶ In 2015, India and Mongolia had signed an agreement on cooperation in the field of Animal Health and Dairy.
- ▶ The Work Plan lays out a series of activities to intensify cooperation in this sector.

Highlights:

▶ On UNSC Reforms:

- ✓ Both the sides reiterated support for the on-going reforms of the United Nations and its principal organs with a view to making the institution more democratic, representative, transparent and efficient.
- ✓ They emphasized the importance of an early reform of the United Nations Security Council (UNSC), in permanent and non-permanent membership categories, so that it reflects the current realities and functions in an accountable, representative and effective manner.
- ✓ The Mongolian side reiterated its support to India's candidature for permanent membership of the UNSC.
- ✓ Both sides also reaffirmed their reciprocal support for their respective bids for a non-permanent seat in the UNSC for the terms 2021-2022 and 2023-2024 respectively.

▶ On cross Border Terrorism:

- ✓ Recognising that extremism and terrorism posed a grave threat to entire humanity, both sides reiterated their strong condemnation of terrorism in all its forms and manifestations including cross-border terrorism.
- ✓ They reiterated their commitment to working together in this regard, including the finalisation of the Comprehensive Convention on International Terrorism.

▶ On Cyber Security:

- ✓ India reaffirmed its support for capacity building and infrastructure development in the field of cyber security in Mongolia.

▶ Line of Credit:

- ✓ Mongolia appreciated significant progress made in the implementation of the 'Mongol Refinery Project' under a Government of India (GoI) Line of Credit (LoC) of US\$ 1 billion.
- ✓ India has also approved a request from the Government of Mongolia to extend an additional LOC of US \$236 million for the project, taking the Government of India's total commitment for the project to US\$ 1.236 billion.

• Tourism:

- The Mongolian side announced a "visa on arrival" scheme arrangement for Indian short-term visitors to encourage mutual tourism.

INDIA-CARICOM LEADERS' MEETING

Why in News?

- ▶ Prime Minister Shri Narendra Modi chaired a meeting with the member states of the Caribbean Community and Common Market (CARICOM) on the margins of the United Nations General Assembly in New York.

Highlights:

- ▶ During the meet, Mr. Modi announced a USD 14 million grant for community development projects in the CARICOM.
- ▶ He also announced another USD 150 million Line of Credit for solar, renewable energy and climate change related projects.
- ▶ He also declared setting up of the Regional Center for Excellence in Information Technology in Georgetown, Guyana and the Regional Vocational Training Center in Belize by upgrading the existing India-funded centers in these countries.
- ▶ Leaders of 14 Caribbean countries participated in the meeting.

CARICOM:

- ▶ CARICOM is a group of twenty developing countries in the Caribbean that have come together to form an economic and political community that works together to shape policies for the region and encourage economic growth and trade.
- ▶ It comprises of 20 countries. Fifteen of these countries are full-fledged members of the community while five of them only retain associate member status.
- ▶ **Fulltime Members:**
 - ✓ Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saint Lucia, Saint Kits and Nevis, Saint Vincent and the Grenadine, suriname, Trinidad and Tobago
- ▶ **Associate members:**
 - ✓ Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Turks and Caicos Islands
- ▶ The CARICOM was formed in 1973.
- ▶ One of CARICOM's current goals is to establish a free-trade zone and single market for increased trade and economic growth in the region.

PACIFIC SMALL ISLANDS DEVELOPING STATES (PSIDS)

Why in News?

- ▶ PM Modi has announced a \$150 million line of credit to the group of Pacific island nations for undertaking solar, renewable energy and climate related projects based on their requirement.

Pacific Small Islands Developing States (PSIDS):

- ▶ The PSIDS comprises of the 14 Pacific Island countries viz. The Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

Small Island developing states (SIDS):

- ▶ SIDS is a group of small island countries that tend to share similar sustainable development challenges.
- ▶ The challenges include small but growing populations, limited resources, remoteness, susceptibility to natural disasters, vulnerability to external shocks, excessive dependence on international trade, and fragile environments.
- ▶ Their growth and development is also held back by high communication, energy and transportation costs and little to no opportunity to create economies of scale.
- ▶ These countries are across the globe in the Caribbean, the Pacific, Atlantic and Indian Oceans, and the Mediterranean and South China Sea.

Groupings:

- ▶ These are broken down into following three geographic regions, with each region having it's own regional cooperation body.
 1. Caribbean: The Caribbean Community
 2. Pacific: The Pacific Islands Forum
 3. Africa, Indian Ocean, Mediterranean and South China Sea (AIMS)

7. INTERNAL SECURITY & DISASTER MANAGEMENT

EXERCISE YUDH ABHYAS 2019

Why in News?

- ▶ As part of the ongoing Indo-US defence cooperation, a joint military training, Exercise Yudh Abhyas – 2019 is being conducted at Joint Base Lewis Mc Chord, Washington, USA.

Yudh Abhyas 2019:

- ▶ Exercise Yudh Abhyas will provide an opportunity to the armed forces of both countries to train in an integrated manner at Battalion level with joint planning at Brigade level.
- ▶ Multiple scenarios will be rehearsed during the joint exercise with a view to understanding each other's organisational structure and battle procedures.
- ▶ This would result in a higher degree of joint manship that would further facilitate interoperability between the armed forces of both countries to meet any unforeseen contingency across the globe.

- ▶ The exercise is also an ideal platform to learn from each other's expertise and experiences of planning and execution of operations.
- ▶ Both armies will jointly train, plan and execute a series of well-developed operations for neutralization of threats of varied nature.
- ▶ The end of a joint exercise will be undertaken by both countries in an operational setting under a UN mandate. Experts from both sides will hold expert academic and military discussions to share each other's experiences on varied topics for mutual benefit.

INDUCTION OF AH-64E APACHE ATTACK HELICOPTER

Why in News?

- ▶ The IAF (Indian Air Force) formally inducted the AH-64E Apache Attack Helicopter into its inventory at Air Force Station Pathankot.

AH-64E Apache Attack Helicopter:

- ▶ Apaches have been an integral part of numerous historic campaigns worldwide. These aircraft have been modified specifically to suit the exacting standards demanded by IAF.
- ▶ IAF has signed a contract with 'The Boeing Company' and US Government for 22 Apache Attack Helicopters. The first eight helicopters have been delivered on schedule and the last batch of helicopters is to be delivered by March 2020.
- ▶ The helicopter is capable of delivering a variety of weapons which include air to ground Hellfire missiles, 70 mm Hydra rockets and air to air Stinger missiles.
- ▶ Apache also carries one 30 mm chain gun with 1200 rounds as part of area weapon subsystem.
- ▶ To add to the lethality of the helicopter, it carries fire control radar, which has a 360° coverage and nose-mounted sensor suite for target acquisition and night vision systems.

Significance of the induction:

- ▶ Apache attack helicopters are being purchased to replace the Mi-35 fleet.
- ▶ The addition of Apache Attack Helicopter is a significant step towards modernisation of Indian Air Force helicopter fleet.
- ▶ This procurement will enhance the capability of IAF in providing integrated combat aviation cover to the army strike corps.
- ▶ These tandem seating helicopters are day/night, all-weather capable and have high agility and survivability against battle damage. These are easily maintainable even in field conditions and are capable of prolonged operations in tropical and desert regions.

EX TSENTR 2019

Why in News?

- ▶ Exercise TSENTR 2019 is part of the annual series of large-scale exercises that form part of the Russian Armed Forces' annual training cycle.
- ▶ Russia holds a major military exercise every year at one of its four military Commands i.e Vostok (East), Zapad (West), TSENTR (Centre) and Kavkas (South).

TSENTR 2019:

- ▶ This year's Exercise TSENTR 2019 will be conducted by the Central Military Commission of Russia.
- ▶ Apart from host Russia, military contingents from China, India, Kazakhstan, Kyrgyzstan, Tajikistan, Pakistan and Uzbekistan will also take part in this mega event.
- ▶ The exercise aims at evolving drills of the participating armies and practising them in the fight against the scourge of international terrorism thereby ensuring military security in the strategic Central Asian region.
- ▶ The TSENTR-2019 strategic measures will focus on evaluating the level of troop preparedness, the acquisition of the required skills and raising the level of interoperability and demonstrate the readiness of the participating armies.
- ▶ The exercise TSENTR 2019 will comprise two modules. The first module will include counter-terror operations, repelling airstrikes, reconnaissance operations and defensive measures, while the second will focus on offensive operations.

28th INDO-THAI CORPAT

Why in News?

- ▶ The 28th edition of the India -Thailand Coordinated Patrol (Indo-Thai CORPAT) between the Indian Navy (IN) and the Royal Thai Navy (RTN) is being conducted from 05 – 15 September 2019 at Bangkok.

Indo – Thai CORPAT:

- ▶ It is a collaborating exercise between the Indian and the Thai navies.
- ▶ It is being conducted twice a year since 2003.
- ▶ This exercise reflects both forces' shared commitment for the peaceful Indian Ocean and international maritime security and cooperation.
- ▶ Objectives of the Indo – Thai CORPAT are to ensure effective implementation of United Nations Conventions on Laws of the Sea (UNCLOS) which specify regulations regarding
 - ▶ Protection and conservation of natural resources
 - ▶ Conservation of marine environment

- ▶ Prevention and suppression of illegal, unregulated fishing activity/ drug trafficking/ piracy
- ▶ Exchange of information in the prevention of smuggling, illegal immigration
- ▶ Conduct of Search and Rescue operations at sea.

CHINESE TRAWLERS IN SOUTHERN INDIAN OCEAN WORRY INDIA

Why in News?

- ▶ There has been a huge increase in Chinese deep-sea fishing trawlers in the southern Indian Ocean far from the Chinese coast which has raised concerns in the government and the security establishment.

Highlights:

- ▶ In the last four years, on an average at least 500 Chinese trawlers were present in the region and around 32,250 incidents per year were recorded.
- ▶ The trawlers were, however, not in India's Exclusive Economic Zone (EEZ) but beyond.
- ▶ This includes trawlers from China, Hong Kong and Taiwan.
- ▶ There were 1,100 occurrences near Somalia and 1,500 occurrences near the Coast of Oman.
- ▶ Occurrences are recordings of the Automatic Identification System (AIS) aboard trawlers and ships recorded when they are activated.
- ▶ A trawler can be recorded multiple times based on its AIS signature.
- ▶ The maritime movements in the region are tracked at the Navy's Information Management and Analysis Centre (IMAC) at Gurugram, which is the single-point centre interlinking all the coastal radar chains and other inputs along the coastline.
- ▶ The AIS information comprises name, MMSI number, position, course, speed, last port visited, destination and so on.
- ▶ This information can be picked up through various AIS sensors including coastal AIS chains and satellite-based receivers.
- ▶ Chinese trawlers have institutional backing and have processing facilities with them which are sold in the vicinity.
- ▶ While India has good inland fishing, the ocean fishing capacity is way below capacity.
- ▶ There have been recommendations for the need to boost domestic deep-sea fishing.

Way Forward:

- ▶ To address the issue, the National Maritime Domain Awareness initiative aims to integrate fishing, ports, customs so that the database is available to everyone.
- ▶ Currently, the States have their databases. As part of this evolving mechanism, the National Committee for Strengthening Maritime and Coastal Security is scheduled to meet to discuss the implementation.

- ▶ There has been a national effort to install AIS systems on ships under 20m for which a pilot study has been carried out.
- ▶ AIS works through satellite and the ISRO has already delivered 1000 transponders for trails in Gujarat and Tamil Nadu.

Exclusive Economic Zone:

- ▶ An Exclusive Economic Zone or EEZ is a zone in the sea approved by the UN Convention on the Law of the Sea. Over this zone, a nation-state has exclusive special rights for exploring and using the marine resources. This right is also extended to the production of energy from wind and water. It extends from the baseline to two hundred nautical miles from the coast of the concerned country.
- ▶ In colloquial practice, the term can also contain the continental shelf.
- ▶ Generally, a state's exclusive right extends up to 200 nautical miles but there are exceptions to this rule such as whenever exclusive economic zones overlap, i.e., the baselines of the state coasts are under 400 nautical miles apart.
- ▶ The continental shelf or the territorial sea over 200 nautical miles is not included in this term.
- ▶ In a territorial sea, the state has complete sovereignty or authority over it.
- ▶ But in case of EEZ, a "sovereign right" is conferred to the state's rights below sea waters. The surface waters are international waters.

EXERCISE MAITREE – 2019

Why in News?

- ▶ Joint Military Exercise MAITREE-2019 between India and Thailand will be conducted at Foreign Training Node, Umroi (Meghalaya)

Highlights:

- ▶ Exercise MAITREE is an annual training event which is being conducted alternatively in Thailand and India since 2006.
- ▶ Notably, in the series of military training exercises undertaken by India with various countries,
- ▶ Exercise MAITREE with Thailand is significant in terms of the security challenges faced by both the nations in the backdrop of changing facets of global terrorism.
- ▶ The scope of this exercise covers company level joint training on counter-terrorism operations in jungle and urban scenario.
- ▶ The joint military exercise will enhance the level of defence co-operation between Indian Army (IA) and Royal Thailand Army (RTA) which in turn will further foster defence cooperation and bilateral relations between the two nations.

INS TARKASH MAKES PORT CALL AT NAMIBIA'S WALVIS BAY

Why in News?

- ▶ In continuation of the Indian Navy's overseas deployment to Africa, Europe and Russia, INS Tarkash made a port call at the Walvis Bay in Namibia on Sunday for a three-day visit.

Highlights:

- ▶ The port call by INS Tarkash demonstrates India's warm ties with Namibia and its commitment to enhance operational reach, maritime security and its solidarity with friendly nations.
- ▶ INS Tarkash commanded by Captain Sathish Vasudev, is a state-of-the-art warship equipped with a versatile range of weapons and sensors.
- ▶ "Professional interactions are planned with the Namibian Navy towards further enhancing co-operation between the two forces. In addition, social engagements, exchange visit of ships, sports event and sharing of best practices are also organised.

Significance of Navy Ships on Bilateral ties:

- ▶ Indian Navy ships are regularly deployed as part of Indian Navy's mission of building 'bridges of friendship' and strengthening international cooperation with friendly countries as well as to address maritime concerns across the globe.
- ▶ The current visit seeks to accentuate India's peaceful presence and solidarity with friendly countries and, in particular, to strengthen the existing bonds of friendship between India and Namibia.
- ▶ India and Namibia have enjoyed warm and friendly bilateral relations sharing common values of democracy, development and secularism.
- ▶ A number of bilateral arrangements for co-operation and military exchange exist between the two countries. As part of its defence cooperation, India, over the years, has extended training to a large number of Namibian military officers in various military institutions.

EXERCISE SAMUDRA LAKSAMANA

Why in News?

- ▶ The Indian Navy and Malaysian Navy had recently participated in the bilateral exercise 'Samudra Laksamana'.

Exercise Samudra Laksamana:

- ▶ The exercise includes two phases: A harbour phase wherein professional interactions social engagements, visits by the local populace and various sports events would be conducted.
- ▶ The Sea Phase of the exercise would enable the two navies to further sharpen their skills in order to enhance interoperability between the navies to ensure peaceful and secure seas for all.

- ▶ From the Indian side, Indian Navy Ships Sahyadri and Kiltan will participate in the exercise.
- ▶ The visit of the IN ships would further bolster the strong bonds of friendship between the two countries and contribute to the security and stability in the region.

CORPS OF ARMY AIR DEFENCE

Why in News?

- ▶ The sixth reunion of the Corps of Army Air Defence was celebrated on 20 and 21 September 2019 at Army AD College, Gopalpur.

Corps of Army Air Defence:

- ▶ The Corps of Army Air Defence (AAD) is an active corps of the Indian Army that is mandated with protecting Indian air space from enemy aircraft and missiles, particularly below 5000 feet, where it is highly impossible for Air Force planes to intercept the threat.
- ▶ AAD is tasked with India's air defence against foreign threats.
- ▶ The Corps was first raised in 1939 when it participated in the Second World War.
- ▶ However, the Corps became an autonomous corps only recently in 1994, when the Corps of Air Defence Artillery was bifurcated from the Army's artillery regiment.
- ▶ A training school called the Army Air Defence College (AADC) was set up to provide training to its personnel, at Gopalpur, Odisha.
- ▶ The motto of the corps is: 'Aakashe Shatrun Jahi' (Sanskrit for 'Defeat the enemy in the sky').
- ▶ Apart from the Second World War, it has seen action in the wars with Pakistan in 1947, 1965 and 1971; in the 1962 war with China and in the Kargil War in 1999.
- ▶ The Corps is headed by the Director General of Corps of Army Air Defence, who is generally a 3-star general.

EXERCISE MALABAR 2019

Why in News?

- ▶ The 23rd edition of the Trilateral Maritime Exercise MALABAR, is scheduled between the navies of India, Japan and USA from 26 Sep to 04 Oct 19 off the coast of Japan.

Exercise Malabar:

- ▶ Exercise Malabar is a trilateral naval exercise involving the United States, Japan and India as permanent partners. Originally begun in 1992 as a bilateral exercise between India and the United States, Japan became a permanent partner in 2015.
- ▶ Past non-permanent participants are Australia and Singapore.
- ▶ The annual Malabar series began in 1992 and includes diverse activities, ranging from fighter combat operations from aircraft carriers through Maritime Interdiction Operations Exercises.

- ▶ Malabar 2019 would encompass conduct of complex maritime operations in the surface, sub-surface and air domains, and focus on Anti-Submarine Warfare, Anti-Air, Maritime Interdiction Operations (MIO) including Visit Board Search and Seizure (VBSS) etc.
- ▶ In addition, the partner navies would conduct official protocol visits, professional interactions including Subject Matter Expert Exchanges (SMEE), reciprocal ship visits, sports fixtures and social events during the harbour phase.

NATIONAL DISASTER MANAGEMENT AUTHORITY (NDMA)

Why in News?

- ▶ The National Disaster Management Authority (NDMA) celebrated its 15th Formation Day.

Highlights:

- ▶ On the occasion, the guidelines on Disability-Inclusive Disaster Risk Reduction were launched.
- ▶ These guidelines strive to make risk reduction initiatives more inclusive.
- ▶ The theme for the 15th Formation Day was Fire Safety.

NDMA:

- ▶ The NDMA was founded in 2005 by the Government of India which enacted the Disaster Management Act that envisaged the creation of the organisation.
- ▶ It is an agency of the Ministry of Home Affairs.
- ▶ The NDMA's chief purpose is to coordinate response to natural or man-made disasters and for capacity-building in disaster resiliency and crisis response.
- ▶ It is the apex body for disaster management in the country.
- ▶ It lays down policies for disaster management, sets up guidelines that are to be followed by the state authorities, coordinates the enforcement and implementation of the national disaster plans, and takes measures for the prevention of disasters, or the mitigation, or preparedness and capacity building for dealing with threatening disaster situations or disasters.

94th MILITARY NURSING SERVICE RAISING DAY

Why in News?

- ▶ The 94th Military Nursing Service Raising Day is being celebrated on 1st October 2019.

Highlights:

- ▶ On this day, nursing officers will rededicate themselves to render high quality, selfless nursing care to their patients by reading the Florence Nightingale Pledge on the occasion.
- ▶ The occasion is celebrated at the Army Hospital (Referral & Research), New Delhi.

Military Nursing Service (MNS):

- ▶ The MNS is the only all-women corps in the Armed Forces in India. It is a part of the Armed Forces Medical Services.
- ▶ It came into being on March 28, 1888, with the arrival of the first batch of 10 qualified British nurses in Bombay, to organize nursing in military hospitals in India.
- ▶ In 1893 it was designated as the Indian Army Nursing Service (IANS) and in 1902 as Queen Alexandra Military Nursing Service (QAMNS).
- ▶ In 1914 for the first time, nurses were enrolled in India and were attached to QAMNS.
- ▶ On October 1, 1926, a permanent nursing service for Indian troops was formed and was designated as the Indian Military Nursing Service (IMNS).
- ▶ On September 15, 1943, the IMNS officers became a part of the Indian Army and the members of the service became Commissioned Officers.
- ▶ After independence, the government constituted the MNS and the IMNS was subsumed in the MNS in 1950.
- ▶ The organization is headed at the Army Headquarters by the Additional Director General, MNS (ADGMNS) in the Rank of Major General and at command level by Brigadier MNS in the rank of Brigadier.
- ▶ The current ADGMNS is Major General Joyce Gladys Roach.