

CURRENT AFFAIRS

**Month of
November-2018**



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Current Affairs

NOVEMBER-2018

INDIA AT NUMBER 77 IN 'EASE OF DOING BUSINESS'

Why in News: India ranked 77th among 190 countries by leapfrogging 23 ranks in World Bank's Ease of Doing Business (EODB) 2018 rankings. In the 2017 rankings, India ranked 100th and had jumped 30 places. In 2016, 2015 and 2014, India had not improved much and was placed at 130, 131 and 134, respectively, in ranking.

EODB 2018 was topped by New Zealand (consecutive for third time), followed by Singapore, Denmark, and Hong Kong. US was placed at eighth and China was ranked 46th while Pakistan is placed at 136th.

India's performance in EODB 2018:

- Its jump in ranking in EODB 2019 was aided largely by improvement in areas such as "trading across borders", "dealing with construction permits", "getting electricity", "getting credit" and "starting a business".
- It has improved in rank in six out of ten indicators. It has moved closer to international best practice. India's score also improved to 67.23, a gain of 6.63 from last year.
- The most dramatic improvements by India was registered in indicators related to 'construction permits' (improved to 52 from 181) and 'trading across borders' (rose to 80 from 146).
- However, compared to last year, India saw its ranking dip on various other parameters, such as "registering property", "protecting minority investors", "paying taxes" and "resolving insolvency".
- It is among top ten economies improving most across three or more areas alongside countries such as Afghanistan, Djibouti, China, Azerbaijan, Togo, Kenya, Côte d'Ivoire, Turkey and Rwanda.

It is only other country, alongside Djibouti, to be in top ten for second year in row. Two economies with largest populations - China and India - demonstrated "impressive reform agendas".

It made starting business easier by integrating multiple application forms into general incorporation form. India also replaced value-added tax (VAT) with GST for which registration process is faster.

The top 10 economies in the ease of doing business rankings are New Zealand, Singapore, Denmark, Hong Kong SAR, Korea, Georgia, Norway, United States, United Kingdom and FYR Macedonia.

Around one-third of all business regulatory reforms recorded by Doing Business 2019 were in the economies of Sub-Saharan Africa. Sub-Saharan Africa implemented a total of 107 reforms.

- Brazil, Russia, India and China, the BRICS economies, introduced a total of 21 reforms, with getting electricity and trading across borders the most common areas of improvement.

Ranking of India in the last few years:

The year	Rankings
Year 2018	77th Rank
Year 2017	100th Rank
Year 2016	130th Rank
Year 2015	130th Rank
Year 2014	142nd Rank

India's ranking improved with good performance in these six cases:

Good performance in six cases	Ranked in 2018-19	Rank in 2017-18
Start of business	137	156
Construction permit	52	181
Availability of electricity	24	29
Availability of credit	22	29
Cross border trade	80	146
Ease of contract	163	164

Ease of Doing Business Index:

The index ranks 190 countries based on 10 indicators across the life-cycle of a business, from "starting a business" to "resolving insolvency." These 10 indicators are: Starting business, Dealing with construction permits, Getting electricity, Registering property, Getting credit, Protecting minority investors, Paying taxes, Trading across borders, Enforcing contracts and Resolving insolvency. Each one of these indicators carry equal weightage. In case of India, Delhi and Mumbai are only two cities surveyed by World Bank for this rankings.

How does this ranking determine: India has implemented 37 major reforms since 2003. In this report, Delhi and Mumbai were included in the year 2017. The report is based on the introduction of any business, construction permit, getting credit, protecting small investors, paying tax, trade in foreign countries, implementing contracts and making bankruptcies.

7 STRATEGIES FOR ENDURING AGAINST CHILDREN

Why in News: The World Health Organization (WHO) and the United Nations International Children's Emergency Relief Fund Council (UNICEF) have agreed on the launch of seven-point program (Seven Strategies for Enduring Against Children), INSPIRE, to prohibit violence against children in the world.

Representatives of 21 countries of Asia and Pacific region are participating here in a program which aims to curb violent incidents against children. This program is from October 31 to November.

Important Points:

According to one estimate, at least one billion children in the world are facing violence in some form each year and 50 percent of children in Asia had to face violent incidents last year.

The international community has committed to prevent violence against children by the year 2030.

It has been set a priority in achieving sustainable development objectives.

Ten agencies of the United Nations have agreed to work together to achieve this.

It has been said in the report that at the global level, every third girlchild in the age group of 15 to 19 (84 million) has to be victim of emotional, physical or sexual violence by her husband or partner.

About INSPIRE:

INSPIRE is a seven point program in which the following formulas are included:

Implementation and enforcement of laws: Regular implementation and enforcement of laws.

Norms and Values: Criteria and Values.

Safe Environment: Safe Environment

Parent and caregiver support: Support for parents and caregivers.

- **Income and economic strengthening:** income and economic strength.
- **Response and support services:** Response and care services.
- **Education and life skills:** education and life skills.

About UNICEF:

- UNICEF was founded in New York on December 11, 1946 by the United Nations. UNICEF runs the program to save children, water, cleanliness, diseases etc., in collaboration with healthcare institutions, especially the World Health Organization, located in the world.
- UNICEF does not discriminate on the basis of any kind of caste, religion, nationality, political ideology etc while working for the welfare of children present in the world. UNICEF provides more than 3 billion vaccines for vaccination of newborn babies worldwide every year.

PARKER SOLAR PROBE BECOMES CLOSEST SPACECRAFT TO SUN

Why in News : The American space agency is reporting that its Parker Solar Probe now holds the record for the closest approach to the Sun by a human-made object. NASA officials said the robotic spacecraft passed the old record of nearly 43 million kilometers from the Sun's surface on October 29. Officials said this information comes from the Parker Solar Probe team. The old record for closest solar approach was set by a German-American spacecraft, called Helios 2, in April 1976.

Important Points:

- The Parker Space Probe is expected to continue setting records as it moves even closer to the Sun. NASA officials say the spacecraft will get as close as 6.16 million kilometers from the surface during one of its visits. They expect that to happen in the year 2024. "It's been just 78 days since Parker Solar Probe launched, and we've now come closer to our star than any other spacecraft in history," noted Project Manager Andy Driesman. He is with the Johns Hopkins Applied Physics Laboratory in Laurel, Maryland.
- The Parker Solar Probe also was expected to set a new record for the fastest spacecraft traveling relative to the Sun. The current record, held by Helios 2, is 246,960 kilometers an hour.

- The Parker Solar Probe team is measuring the spacecraft's speed and position using NASA's Deep Space Network (DSN). The network sends a signal to the spacecraft, which then sends a signal back to DSN ground stations in Australia, Spain and the United States.
- Space agency officials said the Parker Solar Probe's speed and position were estimated using DSN measurements made on October 24. The team used that information along with known orbital forces to estimate the spacecraft's speed and position from that point on.

The Parker Solar Probe will continue flying closer to the Sun's surface until it reaches its first perihelion - the point closest to the Sun in its orbit - on November 5.

The spacecraft will have to deal with extreme heat and radiation levels as it moves closer to the surface. However, the probe is expected to make observations that will add to scientists' understanding of the Sun.

About Parker Solar Probe mission:

Parker Solar Probe is mankind's first mission to study outer corona of Sun. It was successfully launched in August 2018 for unprecedented seven-year long journey to unlock mysteries of Sun's fiery outer atmosphere and its effects on space weather. It is designed and built by NASA's Johns Hopkins University Applied Physics Laboratory. It is named after solar astrophysicist Eugene Parker, making it first spacecraft of NASA to be named after living person.

Scientific goals

- Determine structure and dynamics of magnetic fields at sources of solar wind.
- Trace flow of energy that heats corona and accelerates solar wind.
- Determine what mechanisms accelerate and transport energetic particles.
- Explore dusty plasma near Sun and its influence on solar wind and energetic particle formation.

WWF RELEASED LIVING PLANET REPORT 2018

Why in News: The Living Planet Report 2018 was recently released by the World Wide Fund for Nature (WWF). This report discusses the terrible effects of human activities on wildlife. It has been reported in the report that after 1970, 60% of the total number of organisms and 87% in the vegetation have been observed due to human activities.

Important Points:

- A group of 59 experts from around the world included nearly four thousand species of birds, fish, mammals, amphibians and reptiles in their study to prepare this report.
- Studies have found that the human population has doubled in the last fifty years, which is affecting other animals on Earth. The species like African elephants have suffered the most. In the last ten years, their population has reduced by one-third.
- The danger for living organisms in fresh water is increasing rapidly. Due to the pollution of rivers and lakes, 83 percent of the aquatic creatures have died. Experts have warned that if necessary steps are not taken to preserve them, many other castes will become extinct, which will also pose a threat to the existence of man.
- Environmentalists around the world continually reiterate that biodiversity is in crisis, it needs to be saved, but we consider matters related to environment and surroundings as mere academic debate, or turn it on as seminars, street plays, Let's assume the end of duty by organizing marathon races.
- While there is a need for a basic change in the whole life-style to preserve biodiversity. The laws related to the environment have to be strictly followed. The pattern of development schemes should be kept in such a way that there is minimal loss to nature.
- For the last few years, the construction industry has spoil the most of the nature and the environment. Humans have arranged for their living but have sacrificed animals and other living organisms.

The living conditions of the cities are such that many birds, including sparrow, have disappeared from our view. Obviously, it will have to wait at this point of civilization. Man cannot live alone on this earth He needs the zodiacal world. Due to the end of animal species, the food chain can be disturbed and other kinds of problems can arise.

Conservation of forests, rivers and mountains is essential to save the natural habitat of animals and birds. The GDP-driven approach of development goes against it. If we can change the pace of measurement, we may have seen some hope.

According to the report, more than 4,000 mammal, bird, fish, reptile and amphibian species declined between 1970 and 2014.

The report added that currently only a quarter of land on this planet has not been severely impacted or damaged by human activity, but is projected to decline to just one tenth of the land by 2050, due to pollution, disease, and climate change, among other factors.

About World Wide Fund for Nature (WWF):

It is international non-governmental organization working field of the wilderness preservation and reduction of human impact on the environment. It was formerly named World Wildlife Fund. It is world's largest conservation organization with over five million supporters worldwide, working in more than 100 countries, supporting around 1,300 conservation and environmental projects.

It founded in 1961 and is headquartered in Gland, Switzerland. WWF aims to stop degradation of planet's natural environment and build future in which humans live in harmony with nature. Currently, its work is organized around these six areas: food, climate, freshwater, wildlife, forests, and oceans. It publishes Living Planet Report every two years since 1998 and it is based on Living Planet Index and ecological footprint calculation.

SOURA JALANIDHI SCHEME LAUNCHED IN ODISHA

Why in News: Odisha Chief Minister Naveen Patnaik launched the 'Soura Jalanidhi' scheme and its web portal at the state secretariat here today with an aim of encouraging use of solar energy in agriculture.

Important Points:

- The main aim is to increase the use of solar energy for helping farmers in irrigation.
- It is a dug well based solar pump irrigation system in convergence mode.
- The total cost of the scheme allocated by the state government is Rs. 27.18 crore in the 2018-19 financial year.
- Under the scheme, farmers residing in those areas where there is lack of electricity will be provided with 5,000 solar pumps which would irrigate 2500 acres of land. The solar pumps will be given to the beneficiary farmers at a subsidy of 90 per cent.
- The Chief Minister distributed four go-ahead orders for installation of solar pump to the farmers.
- The state government has taken the initiative to promote solar photovoltaic pump sets in areas which are unserved and underserved by electricity connectivity with the aim of increasing the irrigation potential and cropping intensity in the state.
- The scheme will generate employment of 1.52 lakh man-days per annum with 300 per cent cropping intensity, the opportunity for providing livelihood support to 5,000 families and will reduce the carbon footprint.
- Farmers belonging to the small and marginal categories having a minimum of 0.5 acre cultivable land holding and a dug well will be covered under the programme.

Under the scheme, the state government would provide 500 number of 05 HP solar pumps during 2018-19 by dovetailing financial assistance available under various state government programmes in agriculture, science and technology departments and contributions from the farmers.

Assistance amounting to Rs 54,000 per pump set

would be extended to the farmers and farmers share of Rs 5,400 (self finance or bank loan) for surface pump and Rs 22,257 for submersible pump.

" On this occasion, the Chief Minister distributed four go-ahead orders for the installation of solar pumps at a function attended by more than 1,000 farmers who came from different parts of the state.

- The state gets 300 days clear sunny days with solar radiation of 5KW.hour/SQM day.

There is also ample scope for exploiting untapped ground water potential. Small and marginal farmers constitute 90 per cent of the total farmers population and they cultivate in 3 to 5 acres of land. Dug well are most feasible irrigation sources.

The state government took the initiative to promote solar photo voltaic pump sets in areas unserved or underserved by electricity supply connectivity with the objective to increase the irrigation potential and cropping intensity in the state.

HISTORIC SUPPORT AND OUTREACH INITIATIVE FOR MSME SECTOR

Why in News: The Prime Minister Narendra Modi on November 2, 2018 launched the Micro, Small and Medium Enterprises (MSME) Support and Outreach Programme at Vigyan Bhavan in New Delhi. The launch of the programme was witnessed by Union Minister for Finance and Corporate Affairs, Arun Jaitley and the Union Minister of State for MSME, Giriraj Singh, among other dignitaries.

About Indian Micro, Small and Medium Enterprises Sector:

The Indian MSME sector provides maximum opportunities for both self-employment and wage-employment outside the agricultural sector. The sector generates around 100 million jobs through over 46 million units situated throughout the geographical expanse of the country. With 38 percent contribution to the nation's Gross Domestic Product (GDP) and 40 percent and 45 percent share of the overall exports and manufacturing output respectively, the sector plays a key role in our economy. Besides the wide range of services provided by the sector, the sector is engaged in the manufacturing of over 6000 products ranging from traditional to hi-tech items.

MSME Outreach Programme:

- MSME Outreach Programme will run for 100 days covering 100 Districts throughout the country.
- Various Central Ministers will visit these districts in order to apprise the entrepreneurs about various facilities being extended to MSME Sector by the Government and financial institutions.
- Entrepreneurs will be encouraged to come forward and make best use of these facilities including access to credit and market, etc.
- The Outreach Programme will help in further boosting the MSME sector since this sector is one of the major generators of employment opportunities.

Five key aspects for facilitating the MSME sector:

1. Access to credit
2. Access to market
3. Technology upgradation
4. Ease of doing business
5. A sense of security for employees

As part of this programme, the Prime Minister unveiled 12 key initiatives which will help the growth, expansion and facilitation of MSMEs across the country. These 12 key initiatives that address each of these five aspects:

Access to Credit

- As the first announcement, the Prime Minister announced the launch of the 59 minute loan portal to enable easy access to credit for MSMEs. He said that loans upto Rs. 1 crore can be granted in-principle approval through this portal, in just 59 minutes. He said a link to this portal will be made available through the GST portal. The Prime Minister asserted that in New India, no one should be compelled to visit a bank branch repeatedly.
- The Prime Minister mentioned the second announcement as a 2 percent interest subvention for all GST registered MSMEs, on fresh or incremental loans. For exporters who receive loans in the pre-shipment and post-shipment period, the Prime Minister announced an increase in interest rebate from 3 percent to 5 percent.

- The third announcement made by the Prime Minister was that all companies with a turnover more than Rs. 500 crore, must now compulsorily be brought on the Trade Receivables e-Discounting System (TReDS). He said that joining this portal will enable entrepreneurs to access credit from banks, based on their upcoming receivables. This will resolve their problems of cash cycle.

Access to Markets

The Prime Minister said that on access to markets for entrepreneurs, the Union Government has taken a number of steps already. In this context, he made his fourth announcement, that public sector companies have now been asked to compulsorily procure 25 percent, instead of 20 percent of their total purchases, from MSMEs.

The Prime Minister said his fifth announcement is related to women entrepreneurs. He said that out of the 25 percent procurement mandated from MSMEs, 3 percent must now be reserved for women entrepreneurs.

The Prime Minister said that more than 1.5 lakh suppliers have now registered with GeM, out of which 40,000 are MSMEs. He said transactions worth more than Rs. 14,000 crore have been made so far through GeM. He said the sixth announcement is that all public sector undertakings of the Union Government must now compulsorily be a part of GeM. He said they should also get all their vendors registered on GeM.

Technology Upgradation

Coming to technological upgradation, the Prime Minister said that tool rooms across the country are a vital part of product design. His seventh announcement was that 20 hubs will be formed across the country, and 100 spokes in the form of tool rooms will be established.

Ease of Doing Business

On Ease of Doing Business, the Prime Minister said his eighth announcement is related to pharma companies. He said clusters will be formed of pharma MSMEs. He said 70 percent cost of establishing these clusters will be borne by the Union Government.

- The Prime Minister said that the ninth announcement is on simplification of government procedures. He said the ninth announcement is that the return under 8 labour laws and 10 Union regulations must now be filed only once a year.
- The Prime Minister said that the tenth announcement is that now the establishments to be visited by an Inspector will be decided through a computerised random allotment.
- As the twelfth announcement, the Prime Minister mentioned that an Ordinance has been brought, under which, for minor violations under the Companies Act, the entrepreneur will no longer have to approach the Courts, but can correct them through simple procedures.

Social Security for MSME Sector Employees

The Prime Minister also spoke of social security for the MSME sector employees. He said that a mission will be launched to ensure that they have Jan Dhan Accounts, provident fund and insurance.

TURGA HYDEL PROJECT

Why in News: India and Japan signed Loan Agreement worth Rs. 1817 crore for construction of Turga Pumped Storage (I) Hydrel Project. On completion, this project will contribute to Industrial Development and Living Standard Improvement in the West Bengal.

Important Points:

- This loan agreement was signed between Union Ministry of Finance, Government of India and Mr. Katsuo Matsumoto, Chief Representative Japan International Cooperation Agency (JICA).
- The objective of project is to strengthen capability to respond to fluctuation in supply and demand of power.
- It also seeks to improve stability of power supply by constructing pumped storage facilities, thereby contributing to industrial development and improvement of Living Standard of people in West Bengal.

Background:

India and Japan have long and fruitful history of bilateral development cooperation since 1958. In the last few years, the economic cooperation between India and Japan has steadily progressed, which has further consolidated and strengthened Strategic and Global Partnership between them.

3RD AYURVEDA DAY

Why in News: Ministry of AYUSH observes Ayurveda Day every year on Dhanawantari Jayanti (Dhanteras) which falls on November 5 this year. On this occasion, the Ministry is organising a "National Seminar on Entrepreneurship and Business Development in Ayurveda" in association with NITI Aayog at Dr Ambedkar International centre, New Delhi, with the intention to encourage entrepreneurs and Ayurveda stakeholders towards businesses opportunities in the sector.

The theme of the 3rd Ayurveda Day was "Ayurveda for Public health".

All the State Governments, State AYUSH Directorates, all Ayurveda colleges/ teaching institutions, AYUSH/Health Universities, Associations of Ayurveda Practitioners, Ayurveda Drug Industries and stakeholders of Ayurveda in India and abroad observed the 3rd Ayurveda Day centered on this theme.

Important Points:

- Focus on strengths of Ayurveda and its unique treatment principles.
- Reduce the burden of disease and related mortality by utilising the potential of Ayurveda.
- Exploring Ayurveda to contribute towards National health policy and National Health programmes.
- Promote Ayurvedic principles of healing in society.

Events and Programmes:

● National Seminar on Entrepreneurship and Business Development in Ayurveda:

The Ministry of AYUSH held a "National Seminar on Entrepreneurship and Business Development in Ayurveda" in association with NITI Aayog to encourage entrepreneurs and Ayurveda stakeholders towards businesses opportunities in the sector.

- The Seminar is a subsequent step to the initiatives undertaken by the Ministry to increase Ayurveda Market share three fold by the year 2022.

The seminar is expected to develop awareness among stakeholders about the business opportunities, encourage young entrepreneurs to use of modern technologies and modern innovations in business development and to highlight opportunities at global level.

The experts in marketing, finance management, innovation, telemedicine, the policy makers, experts in start-up and experienced entrepreneurs in Ayurveda pharmaceuticals and hospital industry guided and shared their experiences with the participants.

National Dhanwantari Ayurveda Award:

- The Ministry conferred the National Dhanwantari Ayurveda Award to eminent Vaidyas on this occasion.
- The awards consists of a Citation, Trophy (Dhanwantari Statue) and Cash reward of Rs 5 lakh.
- The Ministry selected three renowned Ayurveda experts namely Vaidya Shiv Kumar Mishra, Vaidya Madhav Singh Bhagel and Vaidya Itoozhi Bhavadasan Namboothiri for the prestigious National Dhanwantari Ayurveda Award 2018.
- The winners of the National level Ayurveda quiz conducted by All India Institute of Ayurveda (AIIA), New Delhi, were also felicitated during function.

AYUSH-Health Management Information System (A-HMIS):

- The Ministry launched the AYUSH-Health Management Information System (A-HMIS), a dedicated software application for Electronic Health Record (EHR) for the AYUSH systems of Healthcare.

- A-HIMS was launched across 15 AYUSH units in different parts of the country in the first phase.
- It is expected to revolutionise the way Ayurveda, Yoga, Unani, Siddha and Homoeopathy are practised in the country, by inducting modern IT-solutions into these systems.

Background:

Every year, the Ministry of AYUSH observes Ayurveda Day on the occasion of Dhanawantari Jayanti (Dhanteras).

Ayurveda is perceived as one of the well documented systems of medicine, equally relevant in modern times. Prevention of disease and promotion of health is the main aim of Ayurveda. Lord Dhanvantari is considered as divine propagator of Ayurveda. He holds the virtues of granting health and wealth.

Therefore, Dhanvantari Jayanti was preferred for celebration of Ayurveda Day by the Ministry of AYUSH to nationalise this system of medicine.

CHINA LIFTS BAN ON TRADE OF TIGER BONES AND RHINO HORNS

Why in News: China released new rules to allow trade of rhino horns and tiger parts for certain medical and cultural purposes, watering down its 25-year-old ban on the same. No reason was given for lifting the ban which was implemented in 1993 amid a global push to protect the fast-disappearing endangered species.

Important Points:

- According to conservationists, this lifting of ban would have devastating consequences globally for the endangered species.
- Tiger bone and rhino horns are used in Traditional Chinese medicine (TCM) and are used to treat insomnia and gout.
- Authorities and wildlife conservationists in Assam are concerned about the detrimental effect on the state's one-horned rhino after China has lifted a 25-year-old ban on use and trade of rhino horn and tiger bone- products.

- According to the latest count, Kaziranga National Park in Assam has 2,413 one-horned rhinos and in 2018, five rhinos fell to poachers. Rhino horns poached from here will turn up in China's markets as 'legal' products. This is an indirect way to open up markets for poached products.
- This might give a boost to rhino poachers and traffickers of horns, who might attempt a spurt in their activities with the hope of laundering the products as legally acceptable in China.
- " Multiple researches and study papers have established that rhino horns poached from Assam land up in China through Myanmar. A report by the International Union for Conservation of Nature (IUCN) in 2017 noted that Myanmar's Shan state was a notorious backdoor wildlife trafficking hub through which rhino horns are taken to China.
- The World Wildlife Fund (WWF), a leading NGO in wildlife conservation and endangered species, has urged China to maintain the ban, adding that the trade will have devastating consequences globally.
- The Convention on International Trade in Endangered Species (CITES) clearly states that tigers should not be bred for trade in their parts and derivatives.

Background:

- Tiger parts were removed from the official TCM pharmacopoeia, a list regulated by China's health ministry, when the country first banned the trade of tiger parts in 1993.
- In 2010, the World Federation of Chinese Medicine Societies, an international non-profit established in Beijing, urged its members to stop using tiger parts or parts from other endangered wildlife.
- China, under President Xi Jinping, has sought to portray itself as more environment-friendly, passing stricter protections over wildlife and natural resources.
- In 2016, China banned the sale of ivory which was believed to be a cure for everything from cancer to sore throats in order to reduce poaching of elephants.

However, the more stringent regulations have come into conflict with Chinese medicine diplomacy, an effort to use TCM to expand the country's soft power globally.

Further, higher living standards have increased Chinese demand for animal parts, valued for their supposed life-extending powers. A recent fervour for ejiao, a "blood-enriching" gelatin made from animal hides, has spurred scrutiny over donkeys, mainly from Africa, slaughtered annually to meet Chinese demand.

World Wide Fund for Nature (WWF):

WWF is an international non-governmental organization founded in 1961, working in the field of wilderness preservation, and the reduction of human impact on the environment.

Its Headquarters is in Gland, Switzerland.

Its mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

The Living Planet Report published every two years by WWF is based on a Living Planet Index and ecological footprint calculation.

INDIA-JAPAN MILITARY EXERCISE

DHARMA GUARDIAN-2018

Why in News: The first joint military exercise named "Dharma Guardian" between India and Japan has begun at Indian Army's Counter-Insurgency Warfare School at Vairengte (Mizoram). The exercise is aimed at developing mutual understanding and respect between militaries of both countries, as also facilitate in tracking worldwide phenomenon of terrorism.

Important Points

In this exercise, Indian Army will be represented by 6/1 Gorkha Rifles, while Japanese Ground Self-Defence Force will field its 32 Infantry Regiment.

The emphasis of this exercise will be on building interoperability.

Armies of both countries will jointly train, plan and execute series of well-developed tactical drills for neutralization of likely threats that may be encountered in urban warfare scenario.

- Moreover, experts from both sides will also hold detailed discussions to share their expertise on varied operational aspects.

In October, the navies of India and Japan resumed the bilateral maritime exercise JIMEX-18 in Indian waters after a hiatus of five years.

The eight-day-long JIMEX-18 included anti-submarine warfare exercises, VBSS (visit, board, search and seizure) drills, gun firings, cross deck Helo operations and coordinated operations in anti-submarine/ anti-air threat scenarios. ?

NOW, A GREEN RATING SYSTEM FOR 'NET ZERO ENERGY' BUILDINGS

Why in News: The Indian Green Building Council has come out with Net Zero Energy Buildings rating system in collaboration with the World Green Building Council and the United States Agency for International Development (USAID).

The rating system, launched during the 16th Green building Congress 2018 here, seeks to complement the National Mission for Enhanced Energy Efficiency and the National Solar Mission.

Important Points:

- IGBC also launched 'Green Building Rating System for Hill Habitats' intended for hill cities, differentiating the sustainability needs of urban development in hills as compared to cities in the plains.
- The theme for Green Building Congress 2018 is 'Green Built Environment for People & the Planet'.
- IGBC plans to promote the concept of 'Net Zero' in India. Under this initiative, the focus is reducing the annual energy consumption by 40-50% with respect to national baseline and cut down energy cost by about 30 per cent.

Net Zero Energy Buildings (NZEB):

- A net-zero energy building is one that relies on renewable sources to produce as much energy as it uses, usually as measured over the course of a year.
- Homes and other structures that create almost as much energy as they use are sometimes called near-zero energy buildings.

- It is also possible for a building to produce an energy surplus, sending excess back to the electrical grid.
- Net-zero energy buildings start with energy-conscious design. Many features work without an energy source. For example:
- In cold climates, south-facing buildings with large expanses of windows on that side can produce heat through passive solar gain. On the cold north side of the building, smaller windows can angle to wider openings, permitting more light while limiting heat loss. In warmer seasons, passive ventilation systems can pull cool air up from the lower levels and vent it through the building's highest point. Rooftop systems can collect rainwater to reduce usage of treated water. Solar panels, heat recovery systems, geothermal heating and wind turbines are among the other technologies used to achieve net-zero status.

Need for NZEB along with Green Building:

Due to increasing urbanisation, it becomes imperative to plan and conceive the cities as green, right from the initial stages.

While, various amenities like lighting, air conditioning, water heating provide comfort to building occupants, but also consume enormous amount of energy and add to pollution.

Buildings have enormous impact on environment, human health and economy. The energy used to heat and power our buildings leads to consumption of large amounts of energy, mainly from burning of fossil fuels, oil, natural gases and coal, which generate significant amounts of carbon dioxide, the most widespread greenhouse gas.

Further, building construction industry produces huge amount of demolition waste and greenhouse gases (35-40%).

Building green is about creating buildings that optimize on the use of local materials, local ecology and most importantly they are built to reduce power, water and material requirements.

Such sustainably built green buildings are environmentally responsible and resource-efficient, right from location selection to the demolition after its life cycle ends.

- According to TERI estimates, if all buildings in Indian urban areas were made to adopt green building concepts, India could save more than 8,400 megawatts of power, which is enough to light 550,000 homes a year.

Green Building Certifying Agencies:

There are various certifying agencies that help building developers to implement these principles and get greencertification. Some of them are:

- LEED-India - Leadership in Energy & Environmental Design (LEED) is an international recognized certification system for the green buildings. The LEED-India Green Building Rating System is an international benchmark for the design, construction and operation of high performance green buildings (provided by IGBC).
- IGBC Ratings - The Indian Green Building Council (IGBC) is a division of the Confederation of Indian Industry that works closely with the government and aims at sustainably built environment.
- BEE-ECBC - The Energy Conservation Building Code (ECBC) was established by the Indian Bureau of Energy Efficiency (BEE) to set energy efficiency standards for design and construction of buildings.
- TERI GRIHA - The Green Rating for Integrated Habitat Assessment (GRIHA) is a national rating system for green buildings that is adopted while designing and evaluating new buildings.

INDIA AND THE REPUBLIC OF KOREA SIGN MOU FOR STRENGTHENING COOPERATION IN THE FIELD OF TOURISM

Why in News: India and South Korea signed two Memorandums of Understanding (MoU) for strengthening cooperation in field of Tourism and sports during the visit of Kim Jung-sook, the First Lady of the Republic of Korea, to India. First Lady Kim was the Chief Guest at the Deepotsav event organised by Uttar Pradesh and at the ceremony of the new Memorial of Queen Suriratna (Heo Hwang-ok) in Ayodhya. Ayodhya and Korea have historical connections through the legendary Princess Suriratna of Ayodhya, who traveled to Korea in 48 CE and married Korean King Suro.

MoU on cooperation in the field of Tourism:

The Union Ministry of Tourism signed a Memorandum of Understanding with the Ministry of Culture, Sports and Tourism of South Korea for strengthening cooperation in the field of Tourism. Union Tourism Minister KJ Alphons and Do Jong-hwan, South Korean Minister for Culture, Tourism and Sports signed the MoU.

The main objectives of the Memorandum of Understanding are:

To expand bilateral cooperation in tourism sector
To increase Exchange of information and data related to tourism

To encourage cooperation between tourism stakeholders including Hotels and Tour Operators
To establish exchange programmes for cooperation in Human Resources Development
To encourage Investment in the Tourism and Hospitality sectors

To exchange visits of Tour Operators / Media / Opinion Makers for promotion of two way tourism
To exchange experience in the areas of promotion, marketing destination development and management
To encourage participation in travel fairs/exhibitions in each other's country
To promote safe, honorable and sustainable tourism

MoU on cooperation in the field of Sports:

Another MoU was signed between the Union Ministry of Youth Affairs and Korean Ministry of Culture, Sports and Tourism on sports cooperation. The MoU was signed by Minister of State of Youth Affairs and Sports Rajyavardhan Rathore and the Korean Minister of Culture, Sports and Tourism Do Jong-hwan.

Background:

India and South Korea have enjoyed strong diplomatic and long economic relationship. Both countries are now desiring to strengthen and further develop established relationship in field of tourism. South Korea is one of leading tourist generating markets for India from East Asia region. Signing of this MoU will be instrumental in increasing arrival in India from this source market.

ALL-INDIA UNRESERVED MOBILE TICKETING FACILITY (UTS ON MOBILE)

Why in News: Ministry of Railways has introduced Unreserved Mobile Ticketing with a view to promote three C's- Cashless transactions (Digital payment), Contact less ticketing (no need to physically visit the point of sale) and Customer convenience and experience. As a big leap, booking of unreserved tickets on all non-suburban sections across all Zonal Railways has been made available from 1st November to enable seamless booking of unreserved tickets all over Indian Railways which will obviate the need for passengers to wait in queues for purchasing the tickets.

Important Points:

- A pilot project for booking of unreserved tickets through mobile phone was launched in December, 2014 on select stations in Central Railways to provide customers the convenience of booking of unreserved tickets.
- Gradually, unreserved Mobile ticketing was extended to all suburban sections in metropolitan cities of Chennai, Delhi, Kolkata and Secunderabad between 2015 and 2017 along with the facility of paperless ticketing.
- The 'UTSONMOBILE' app was also introduced on Non-Suburban sections in 2015 initially on Delhi-Palwal section of Northern Railway which was subsequently extended to other non-suburban sections of Northern, South Central, Southern, South Western, East Coast, South East Central and South Eastern Railways.
- The facility of booking unreserved tickets, including season tickets and also platform tickets is available through the 'UTSONMOBILE' app, available for Android, IOS and Windows phone users.
- The process of ticket booking involves downloading the application and registration by furnishing the necessary details.
- After successful registration, the user is given user-ID and password through which the user can log-in and book ticket through this application within the ticketing area and outside the Geo-fenced area.

The payment could be made R-Wallet, debit card, credit card, net-banking, UPI and other e-wallets, thus, promoting government's directives to promote all digital modes of payments.

Benefits of the app:

- Seamless booking of unreserved tickets all over Indian Railways
- Obviate the need for passengers to wait in queues for purchasing the tickets
- Enhance the experience for booking unreserved tickets - journey, season tickets, platform tickets
- Environment friendly

About the App:

'UTSONMOBILE' application available for Android, IOS, Windows phones. Can be downloaded from Google play or window store. Application 'in house' developed by Indian Railway- CRIS.

Patronization of the App:

Increase in Number of tickets sold: approximately 1900/day in 2015 to 83,000/day in October, 2018.

Increase in number of passengers: approximately 5400/day in 2015 to in 4.70 lakh/day in October, 2018.

L&T LAUNCHES FOURTH VIKRAM- CLASS OFFSHORE PATROL VESSEL

Why in News: Indian shipbuilder, Larsen & Toubro (L&T) has launched the fourth Vikram-class Offshore Patrol Vessel (OPV), ICGS Varaha, for the Indian Coast Guard (ICG) during a ceremony at the company's Kattupalli Shipyard near Chennai.

Important Points:

- It is fitted with advanced technology navigation and communication equipment, sensor and machinery.
- Its weaponry includes one 30 mm and two 12.7 mm guns with fire control system.
- It has been designed to attain maximum speed of 26 knots and has endurance of 5,000 nautical miles.

- It also equipped with an Integrated Bridge System (IBS), Automated Power Management System (APMS), Integrated Platform Management System (IPMS), and High Power External Fire Fighting (EFF) system.
- It can carry one twin engine helicopter and four high speed boats, including two inflatable boats, for boarding operation, search and rescue, law enforcement and maritime patrol.
- It will also be capable of carrying pollution response equipment to contain oil spill at sea.

Background:

In March 2015, Union Defence Ministry had awarded contract to L&T for construction of seven OPVs awarded. The first and second ships of this project already have been delivered to ICG and are presently based in Western Coast and Eastern Coast of India and third OPV will be delivered in early 2019. The shipyard will deliver all seven ships by March 2021.

RBI STARTS PROCESS TO SET UP DIGITAL PUBLIC CREDIT REGISTRY (PCR)

Why in News: Reserve Bank of India (RBI) has initiated steps to set up wide-based digital Public Credit Registry (PCR) to capture loan information of individuals and corporate borrowers. In this regard, RBI has invited expression of interest (EOI) for developing PCR from companies with turnover of over Rs 100 crore in last three years. Setting up of PCR assumes significance amidst rising bad loans in financial system. The non-performing assets (NPAs) in Indian banking system is about Rs 10 lakh crore.

About Public Credit Registry (PCR)

PCR is digital registry of authenticated granular credit information. It will work as financial information infrastructure providing access to various stakeholders and enrich the existing credit information ecosystem. It seeks to serve as single point of mandatory reporting for all material events for each loan, notwithstanding any threshold in the loan amount or type of borrower.

PCR will capture all details of borrowers, including wilful defaulters and also pending legal suits in order to check financial delinquencies. It will also include data from entities like market regulator SEBI, Corporate Affairs Ministry, Goods and Service Tax Network (GSTN) and Insolvency and Bankruptcy Board of India (IBBI) to enable banks and financial institutions to get 360 degree profile of existing and prospective borrowers on real-time basis.

Background:

In June 2018, RBI had announced to set up PCR for India with view to address information asymmetry, foster access to credit and strengthen the credit culture in the economy. This decision was taken based on recommendation of high-level task force (HTF) i.e. YM Deosthalee committee which was constituted by RBI to review current availability of information on credit, adequacy of existing information utilities, and identify gaps that could be filled by PCR.

Currently, there are multiple granular credit information repositories in India, with each having somewhat distinct objectives and coverage. Within RBI, CRILC is borrower level supervisory dataset with threshold in aggregate exposure of Rs 5 crore. Moreover, there are four privately owned credit information companies (CICs) operating in India. RBI has mandated all its regulated entities to submit credit information individually to all four CICs.

SEYCHELLES LAUNCHES WORLD'S FIRST SOVEREIGN BLUE BOND

Why in News: The Republic of Seychelles launched the world's first Sovereign Blue Bond, a financial instrument designed to support sustainable marine and fisheries projects. The bond raised USD 15 million from international investors. The bond demonstrates the potential for countries to harness capital markets for financing the sustainable use of marine resources. With this, Seychelles became the first nation to pioneer such a novel financing instrument.

Assistance and investors

The World Bank assisted in developing the Blue Bond and helped the country in reaching out to the three investors:

- Calvert Impact Capital
- Nuveen
- U.S. Headquartered Prudential Financial Inc.

Important Points:

- The Blue Bond is a part of an initiative that combines public and private investment to mobilise resources for empowering local communities and businesses.
- Proceeds from the bond will be utilised for the expansion of marine protected areas, improved governance of priority fisheries and the development of the Seychelles' blue economy.
- Proceeds from the bond will also contribute to the World Bank's South West Indian Ocean Fisheries Governance and Shared Growth Program, which supports countries in the region to sustainably manage their fisheries and increase economic benefits from their fisheries sectors.
- Grants will be provided through the Blue Grants Fund and will be managed by the Seychelles' Conservation and Climate Adaptation Trust (SeyCCAT)
- Loans will be provided through the Blue Investment Fund and will be managed by the Development Bank of Seychelles (DBS).
- It will greatly assist Seychelles in achieving a transition to sustainable fisheries and safeguarding oceans.

- The Seychelles is an archipelagic nation consisting of 115 granite and coral islands in the Indian Ocean, off East Africa. It is home to numerous beaches, coral reefs and nature reserves as well as rare animals such as giant Aldabra tortoises.

As one of the world's biodiversity hotspots, Seychelles is balancing the need to develop economically and protect its natural resources. After tourism, the fisheries sector is the most important industry in the country, contributing significantly to annual GDP and employing 17 percent of the population.

Fish products make up around 95 percent of the total value of domestic exports.

Important names behind the creation of Blue Bond

The Seychelles blue bond is partially guaranteed by a USD 5 million guarantee from the World Bank (IBRD) and is further supported by a USD 5 million concessional loan from the Global Environment Facility (GEF) which will partially cover interest payments for the bond.

A World Bank team comprising experts from its Treasury, Legal, Environmental and Finance groups worked with investors in structuring the blue bond.

The business case for a sovereign blue bond was initially identified through support to Seychelles from HRH Prince of Wales' Charities International Sustainability Unit.

Standard Chartered acted as placement agent for the bond and Latham & Watkins LLP advised the World Bank as external counsel.

Clifford Chance LLP acted as transaction counsel for the bond.

YEMEN STILL UNDER FAMINE THREAT : UNICEF

Why in News: The UN states that 22.2 million Yemenis are in dire need of food, including 8.4 million threatened by severe hunger and that Yemen is suffering from the most severe famine in more than 100 years. UNICEF has warned that more than seven million children are facing a serious threat of famine in Yemen and over 6,000 kids had either been killed or sustained serious injuries since 2015.



Important Points:

- The Saudi-led war has also taken a heavy toll on the country's infrastructure, destroying hospitals, schools, and factories because of years of underdevelopment in the impoverished Arab country and has, so far, claimed the lives of around 56,000 Yemenis.
- The UN states that 22.2 million Yemenis are in dire need of food, including 8.4 million threatened by severe hunger and that Yemen is suffering from the most severe famine in more than 100 years.
- Geert Cappelaere, UNICEF Regional Director for the Middle East and North Africa says more than 10,000 people have been killed and more than half of the 14 million people at serious risk of famine in Yemen are children and an additional one million severely food insecure children in Yemen risk falling into famine as families struggle to afford basic food and transport to health facilities for treatment.
- Already, more than two-thirds (64.5 per cent) of Yemen's population don't know where their next meal is coming from.
- UNICEF said about 40 percent of the 400,000 children suffering from acute malnutrition in Yemen live in Hodeidah and the surrounding areas.
- Yemen, the poorest country in the Middle East - one of the poorest countries in the world - is mired in a bitter conflict that involves some of the world's wealthiest.
- For four years this impoverished country at the bottom of the Arabian peninsula has suffered through conflict, hunger, drought and economic collapse.

Infrastructure has been destroyed. Doctors and teachers work without pay. Families don't know where their next meal will come from. Children drink from dirty water sources - when they can find water at all.

GLOBAL IT CHALLENGE FOR YOUTH WITH DISABILITIES 2018 BEGINS

Why in News: The Global IT Challenge for Youth with Disabilities, 2018 was inaugurated here today by the Minister of State for Social Justice & Empowerment, Shri Krishan Pal Gurjar. The three day event is being organised by the Department of Empowerment of Persons with Disabilities (DEPwD), Ministry of Social Justice and Empowerment in association with Rehabilitation International Korea and their associated partner LG Electronics from 9th to 11th November, 2018.

The objective of the event is to leverage IT skills among youth with disabilities and also to spread awareness about the application of Information and Computer Technology (ICT) in enhancing the quality of life of persons with disabilities especially in Asia-Pacific region. The award ceremony of the event will be held on 11th November, 2018. Secretary, DEPwD Smt. Shakuntala D. Gamlin, MD, LG Electronics India Ltd. Mr. Kim Ki Wan and Head of UNESCAP (South Asia) Mr. Nagesh Kumar and other distinguished guests were present on the occasion.

Important Points:

The Global ICT Challenge for Youth with Disabilities is a capacity building project that helps youth with disabilities to overcome their limitations and challenge themselves for a better future by providing them with access to ICT and related experiences, improving their ability to leverage information and social participation while setting ICT agendas for participant countries related to disabilities and boosting international cooperation and exchange.

This year around 100 youth with disabilities (visual disability, hearing disability, locomotor disability and intellectual disability/developmental disorder) from 18 countries namely, India, Indonesia, China, Vietnam, Malaysia, Thailand, Sri Lanka, Bangladesh, Nepal, Mongolia, Cambodia, Laos, Philippines, Korea, Kazakhstan, Kyrgyzstan, UK and UAE are participating in this event. India has nominated twelve youth with disabilities to participate in the event.

- These youth with disabilities have been selected on the basis of the National IT Challenge conducted by the Ministry through NIT Kurukshetra in June, 2018. India has been participating in the event since 2013 and has been winning awards ever since. Last year the event was held in Vietnam.

- The competition is focused on strategies for strengthening IT skills of youth with disabilities as a critical requirement for enhancing their access to information and communication services on an equal basis with others. It is being held with a total of four events including e-Tool Challenge to evaluate the skills of using the MS Office programme and e-Life Map Challenge to evaluate the online information search ability in specific situations.
- Delivering inaugural address, Shri Krishan Pal Gurjaremphasised the needs to make ICT accessible to persons with disabilities through various services and products so that they participate in all activities of society equally with others. He said that efforts must be made by all the stakeholders to improve IT skills of persons with disabilities. He stated that India is deeply committed to the empowerment and inclusion of persons with disability. All out steps are being taken to make their life easy and productive by use of IT technology.

GLOBAL COOLING INNOVATION SUMMIT

Why in News: The Global Cooling Prize, an international competition to incentivize the development of a residential cooling technology that will have at least five times (5x) less climate impact than the standard Room Air Conditioning (RAC) was announced at the inaugural session of the two day Global Cooling Innovation Summit in New Delhi.

Important Points:

- The Summit is a first-of-its-kind solutions-focused event that will bring together leaders from around the world to explore concrete means and pathways to address the climate threat that comes from the growing demand from room air conditioners.
- The event is jointly organized by the Department of Science and Technology, Government of India, along with Rocky Mountain Institute, Alliance for An Energy Efficient Economy (AEEE), Conservation X Labs and CEPT University.
- This awards programme will call world-wide attention to the most promising ideas across the globe. This award will celebrate successes and facilitate endeavours of innovators through providing recognition, encouragement and support.

- The award will also be able to build a collaborative platform that can utilize the potential of researchers so that public research contributes towards fostering innovation and create impact which is of social and economic good.
- This recognition will not only recognise the eminent contributions to clean energy research development and demonstration, but would also motivate younger researchers to focus on innovations needed in clean energy domain to make world a better place to live.

Global Cooling Prize:

The summit will also see the launching of Global Cooling Prize- Mission Innovation challenge that aims to spur development of a residential cooling solution that has at least five times (5x) less climate impact than today's standard.

Global Cooling Prize is a competition with global reach and participation to achieve dramatic breakthroughs in cooling technologies. The objective of this competition would be to develop a cooling technology that requires radically less energy to operate, utilizes refrigerants with no ozone depletion potential and with low global warming potential, and has the potential to be cost-effective at scale.

2018 UNESCO ASIA-PACIFIC AWARDS FOR CULTURAL HERITAGE CONSERVATION

Why in News: The restoration of an aristocratic house project from partial ruin state in Ladakh undertaken by LAMO (Ladakh Arts and Media Organisation) Center has won 2018 UNESCO Asia-Pacific award for Cultural Heritage conservation in Award of Distinction category. LAMO is public charitable trust established to articulate an alternative vision for the arts and media in Ladakh.

Important Points:

- The restored structure is strategically located at the foot of Leh palace, contributes to continuity of historic townscape of 17th century.
- Its recovery establishes precedent for conserving non-monumental urban fabric of Leh Old Town.

Under restoration project, LAMO had used salvaged and local building materials and indigenous construction techniques and skillfully introduced modern amenities to assure its ongoing use.

Other Category awardees:

- **Award of Excellence:** It was awarded to restoration project of early 20th-century Shijocho Ofune-hoko Float Machiya in Japan. It celebrates Kyoto culture by safeguarding city's endangered wooden townhouse typology as well as iconic annual Gion Festival.
- **Award of Distinction:** LAMO Center, Ladakh, India
- **Award of Merit:** 5 Martin Place, Sydney (Australia); Aijing Zhuang, Fujian (China); Commercial Bank of Honjo Warehouse, Saitama (Japan).
- **Honourable Mention:** Hengdaohezi Town, Heilongjiang (China), Rajabai Clock Tower & University of Mumbai Library Building, Mumbai (India), Ruttonsee Muljee Jetha Fountain, Mumbai (India).
- **New Design in Heritage Contexts:** Kaomai Estate 1955, Chiang Mai (Thailand) and Harts Mill, Port Adelaide, (Australia).

About UNESCO Asia-Pacific Awards for Cultural Heritage Conservation:

It was established in 2000. It recognizes efforts of private individuals and organizations that have successfully conserved structures and buildings of heritage value in the region. It aims to encourage other property owners to undertake conservation projects within their communities, either independently or by seeking PPP (public-private partnerships).

'YOUNG INDIA AND WORK' REPORT

Why in News: Seventy percent of youth are unaware of government-run skill development programmes in their area, yet more than seventy percent are very interested in pursuing skills training, according to a "Young India and Work" study by the Observer Research Foundation and World Economic Forum. The findings, released recently, sheds light on a disconnect between youth sentiments and government's skill development programme. The study surveyed a random sample of almost 6,000 youth between 15 and 30 about employment and aspirations.

Important Points:

Higher education degrees are highly valued, but youth also want new skills: 96 percent of respondents hope to achieve a bachelor's degree or higher. 76 percent of respondents reported being very interested in pursuing skills development training.

- **Factors considered while looking for a job:** Good salaries, ample opportunities for promotion and career development, and job security.

While youth prefer public sector jobs, there is discernible interest in entrepreneurship: 49 percent of youth prefer a job in the public sector. On the other hand, 38 percent of youth selected self-employment as an entrepreneur as their ideal type of job.

The IT Industry is the largest employer of youth: 17 percent of employed respondents in this survey report working in information technology, communications and telecommunications making the IT industry the largest employer of surveyed youth.

More than a third of surveyed youth are neither employed nor in education: 34 percent of all surveyed youth are neither employed, nor in education.

The majority of respondents in the 15-20 age bracket are in education.

However, over 30 percent of 21 to 25-year-olds reported being neither employed nor in education. Fifty percent of female respondents in the 26-30 age bracket reported being neither employed nor in education.

Women prefer full-time careers, have less paid work experience, and feel less prepared: 82 percent of female youth prefer full-time employment as their ideal time commitment for work.

The survey also reveals that men have more paid work experience than women, with 28 percent of male respondents between the ages of 26-30 years having four or more years of paid work experience compared to 18 percent of female respondents.

Overall, men also report feeling more prepared for their ideal job than women.

Areas of Disconnect between policies and aspirations of youth: Seventy percent of youth are unaware of government-run skill development programmes in their area. The low training participation - roughly three-fourths of the youth have never enrolled in a skills development programme - was mostly due to financial barriers, time constraints and the delay between skills training and finding an appropriate job.

Youth were willing to move for work, but companies emphasized recruiting locally.

- Job searches have gone digital but employers and recruiters have not: 81 percent of respondents report relying on media and internet sources for information and updates on available employment opportunities. On the other hand, a mere 14 percent of companies are using online sources for recruitment.
- Information asymmetry, lack of guidance and work experience are impeding Indian youth from meeting their career aspirations: 51 percent of youth report that the lack of guidance in identifying jobs that match their skill sets is the main barrier they face when looking for a desirable job.
41 percent of youth view their lack of work experience as the main barrier.
Further, 49 percent of youth feel that interaction with industry professionals is the most valuable form of guidance. This is closely followed by interaction with professional career counselors.
81 percent of youth view internships or apprenticeships as important for getting hired.

Context

- About 1.3 million people enter the working age population in India every month.
- The half of the country's population of 1.3 billion is below the age of 25, there is a demographic advantage to be realised.
- While it is clear that this will be realised in the context of technological disruption (emergence of Artificial Intelligence, Machine learning, Big data, etc.) and in the wake of dramatic changes in the economy and labour market, managing these transformations and truly leveraging the possibilities they present, will require an understanding of the expectations and aspirations of India's youth.

About Observer Research Foundation (ORF):

- Observer Research Foundation was set up in 1990. Based in India, the organisation seeks to lead and aid policy thinking towards building a strong and prosperous India in a fair and equitable world.
- It helps to discover and inform India's choices and carries Indian voices and ideas to forums shaping global debates.
ORF provides independent analyses and inputs on matters including strategy, economy, development, energy, resources, security and global governance to diverse decision-makers of the country.
ORF's mandate is to conduct in-depth research, provide inclusive platforms and invest in tomorrow's thought leaders today.

About World Economic Forum (WEF):

The World Economic Forum (WEF) is the International Organization for Public-Private Cooperation.

The Forum was established in 1971 as a not-for-profit foundation and is headquartered in Geneva, Switzerland.

WEF engages the foremost political, business and leaders of society to shape global, regional and industry agendas.

'SAMUDRA SHAKTI' BEGINS IN INDONESIA

Why in News: The inaugural edition India, Indonesia Bilateral Naval Exercise 'Samudra Shakti' was held at the port of Surabaya, Indonesia. The aim of the exercise is to strengthen bilateral relations, expand maritime co-operation, enhance interoperability and exchange best practices. The Indian Naval Ship (INS) Rana of the Eastern Fleet based at Visakhapatnam under the Eastern Naval Command arrived at the port of Surabaya to participate in the exercise.

Important Points:

- The exercise aims to strengthen bilateral relations, expand maritime co-operation, enhance interoperability and exchange best practices. The strategic partnership between both the two nations was elevated to 'Comprehensive Strategic Partnership' during the visit of Prime Minister Narendra Modi to Indonesia in May 2018.

- The exercise started with Harbour Phase which encompassed planning and briefing on various activities, professional interactions, cross deck visits, sports fixtures and social interactions.
- It was progressed by Sea Phase which included operations such as joint manoeuvres, helicopter operations, surface warfare exercise, ASW exercise and anti-piracy exercises. Indian Navy was represented by INS Rana of Eastern Fleet based at Visakhapatnam under Eastern Naval Command, which is deployed in South East Asia.

Background:

- During the visit of Prime Minister Narendra Modi to Indonesia in May 2018, both the nations agreed to step up their defence and maritime cooperation, raising the level of their ties to a comprehensive strategic partnership.
- India agreed to develop the strategically important Indonesian port Sabang in the Indian Ocean, close to the Andamans and both the sides unveiled a vision document for the Indo-Pacific region, the first of its kind between India and a South-East Asian country, to deal with the increasing presence of China in the area.

INDIA'S FIRST MULTI-MODAL TERMINAL ON INLAND WATERWAYS IN VARANASI

Why in News: Prime Minister Narendra Modi recently inaugurated India's first multi-modal terminal on the Ganga river in Varanasi and received the country's first container cargo transported on inland waterways from Kolkata.

Important Points:

- The first consignment containing food and beverage had set sail from Kolkata in the last week of October.
- This is the first of the four multi-modal terminals being constructed on the National Waterway-1 (river Ganga) as part of the World Bank-aided Jal Marg Vikas project of the Inland Waterways Authority of India.

Container cargo transport comes with several inherent advantages. Even as it reduces the handling cost, allows easier modal shift, reduces pilferages and damage, it also enables cargo owners to reduce their carbon footprints.

About Jal Marg Vikas Project:

The Jal Marg Vikas Project seeks to facilitate plying of vessels with capacity of 1,500-2,000 tonnes in the Haldia-Varanasi stretch of the River Ganga. The major works being taken up under JMVP are development of fairway, Multi-Modal Terminals, strengthening of river navigation system, conservancy works, modern River Information System (RIS), Digital Global Positioning System (DGPS), night navigation facilities, modern methods of channel marking etc.

Implementation: The JMVP, which is expected to be completed by March, 2023, is being implemented with the financial and technical support of the World Bank. The project will enable commercial navigation of vessels with the capacity of 1500-2,000 tons on NW-1.

Its objective is to promote inland waterways as a cheap and environment-friendly means of transportation, especially for cargo movement. The Inland Waterways Authority of India (IWAI) is the project implementing agency.

India National Waterways

Waterways	Area	Length	Year
National Waterway 1		1620 km	1986
Ganges, Bhagirathi and Hooghly river system			
National Waterway 2		891 km	1988
Brahmaputra river from Sadiya to Dhubri in Assam			
National Waterway 3	Kerala	205 km	1993
National Waterway 4		1095 km	2008
Pondicherry, Andhra Pradesh & Tamil Nadu			
National Waterway 5		623 km	2008
Orissa to West Bengal			
National Waterway 6		121 km	2013
Lakhipur to Bhanga			

MINISTRY OF RENEWABLE ENERGY PREPARES DRAFT OF INDIAN WIND TURBINE CERTIFICATION SCHEME

Why in News: Ministry of New and Renewable Energy, in consultation with National Institute of Wind Energy Chennai, has prepared a draft of new Scheme called Indian Wind Turbine Certification Scheme (IWTCS) incorporating various guidelines Turbine Certification Scheme (IWTCS).

The IWTCS is a consolidation of relevant National and International Standards (IS/IEC/IEEE), Technical Regulations and requirements issued by Central Electricity Authority (CEA), guidelines issued by MNRE and other international guidelines. It has also strived to incorporate various best practices from other countries to ensure the quality of the wind energy projects.

Important Points:

- The draft scheme enlists the guidelines for the benefit of all the stakeholders from concept to lifetime of a wind turbine, including Indian Type Approved Model (ITAM), Indian Type Certification Scheme (ITCS), Wind Farm Project Certification Scheme (WFPCS) and Wind Turbine Safety & Performance Certification Scheme (WTSPCS).
- It incorporates the best practices from other nations in order to ensure the quality of the wind energy projects.
- The scheme aims to assist and facilitate the following stakeholders:
 - (i) Original Equipment Manufacturers (OEMs)
 - (ii) End Users -Utilities, SNAs, Developers, IPPs, Owners, Authorities, Investors and Insurers
 - (iii) Certification Bodies
 - (iv) Testing Laboratories

The Ministry has uploaded the draft scheme on its website: <https://mnre.gov.in> and has invited comments from all stakeholders and even the public latest by December 5, 2018 for finalising the new scheme.

Background:

- Wind energy has over the period become the mainstream source of renewable power generation in India.
- The steady growth of the sector has seen different types of wind turbines with diverse performance and safety criteria.

The Union Ministry of New and Renewable Energy through various policies and schemes has facilitated the healthy and orderly growth of this sector.

- The modern wind turbines have higher hub heights, larger rotor diameter, higher capacity
- and improved Capacity Utilization Factor (CUF) along with technological improvements.

Under these developments, there is a need for a comprehensive document that provides the complete technical requirements which shall have to be complied by the wind turbines for the safe and reliable operation by all the stakeholders namely, OEMs, Independent Power Producers (IPPs), wind farm developers, Financial Institutions, Utilities and others.

Also, there is a need for technical regulations that shall facilitate a common ground for OEMs, Developers, Investors and Financial Institution for systematic development.

Further, type certification of wind turbines plays an active role in ensuring that wind turbines in India meet the requirements of requisite IS/IEC/IECRE standards in vogue.

Internationally, IEC /IECRE Certification schemes for wind turbines are well recognised and widely used and the IWTCS in its formulation has incorporated the rules and procedures of IS/IEC/IECRE.

WORLD'S LARGEST BRAIN-LIKE SUPERCOMPUTER SWITCHED ON FOR FIRST TIME

Why in News: The world's largest supercomputer designed to work in the same way as the human brain has been switched on for the first time.

The newly formed million-processor-core Spiking Neural Network Architecture (SpiNNaker) machine is capable of completing more than 200 million million actions per second, with each of its chips having 100 million transistors.

Important Points:

- The SpiNNaker machine, designed and built in The University of Manchester in the UK, can model more biological neurons in real time than any other machine on the planet.

- Biological neurons are basic brain cells present in the nervous system that communicate primarily by emitting 'spikes' of pure electro-chemical energy.
- **Neuromorphic computing uses large scale computer systems containing electronic circuits to mimic these spikes in a machine.**
- Researchers eventually aim to model up to a billion biological neurons in real time and are now a step closer. To give an idea of scale, a mouse brain consists of around 100 million neurons and the human brain is 1,000 times bigger than that.
- **One billion neurons is one per cent of the scale of the human brain, which consists of just under 100 billion brain cells, or neurons, which are all highly interconnected via approximately one quadrillion synapses.**
- One of the fundamental uses for the supercomputer is to help neuroscientists better understand how our own brain works. It does this by running extremely large scale real-time simulations which simply aren't possible on other machines.
- For example, SpiNNaker has been used to simulate high-level real-time processing in a range of isolated brain networks. This includes an 80,000 neuron model of a segment of the cortex, the outer layer of the brain that receives and processes information from the senses.

Potential for neurological breakthroughs:

It also has simulated a region of the brain called the Basal Ganglia - an area affected in Parkinson's disease, meaning it has massive potential for neurological breakthroughs in science such as pharmaceutical testing.

- The power of SpiNNaker has even recently been harnessed to control a robot, the SpOmnibot. This robot uses the SpiNNaker system to interpret real-time visual information and navigate towards certain objects while ignoring others.

What is unique about SpiNNaker?

SpiNNaker is unique because, unlike traditional computers, it does not communicate by sending large amounts of information from point A to B via a standard network. Instead it mimics the massively parallel communication architecture of the brain, sending billions of small amounts of information simultaneously to thousands of different destinations.

HRD MINISTRY LAUNCHES LEADERSHIP FOR ACADEMICIANS PROGRAMME

Why in News: Union Ministry of Human Resource Development launched two new initiatives viz. Leadership for Academicians Programme (LEAP) and Annual Refresher Programme In Teaching (ARPIT) for higher education faculty. ARPIT is unique initiative of online professional development of 15 lakh higher education faculty. LEAP is three weeks flagship leadership development training programme for second level academic functionaries in higher education institutions,

Leadership for Academicians Programme (LEAP):

It is three weeks (2 weeks domestic and 1 week foreign training) flagship leadership development training programme for second level academic functionaries in public funded higher education institutions. Its main objective is to prepare second tier academic heads who are potentially likely to assume leadership roles in the future.

It will make Higher Education Institutions (HEIs) perform their roles of developing better students who will be future torch bearers. It will provide senior faculty required leadership and managerial skills including skills of problem-solving, team building work, handling stress, communication, conflict management, understanding complexity and challenges of governance in HEIs and general administration.

It will be implemented through 15 National Institute Ranking Framework (NIRF) top ranked Indian Institutions namely, IIT Bombay, IIT Kanpur, IIT Kharagpur, IIT Roorkee, IISER Kolkata, NIT Trichy, JNU; IIT (BHU), Delhi University, TISS Mumbai, University of Hyderabad, NIEPA, Jamia Millia Islamia, BHU and AMU.

The foreign universities identified for training collaboration are also within top 100 in world global rankings. It includes University of Michigan, Harvard University, Oxford University, University of Cambridge, Purdue University, University of Chicago, NTU Singapore, Monash University, University of Pennsylvania and University of Virginia.

Annual Refresher Programme in Teaching (ARPIT):

- It is a major and unique initiative of online professional development of 15 lakh higher education faculty using Massive Open Online Courses (MOOCs) platform SWAYAM. Under it 75 discipline-specific institutions are identified and notified as National Resource Centres (NRCs) in phase I.
- These institutions will be tasked to prepare online training material with focus on latest developments in discipline, methodologies for transacting revised curriculum and pedagogical improvements. The courses will cover diverse range of topics.
- Each course will be 40 hour module with 20 hours of video content and 20 hours of non-video content. It will also have built-in assessment exercises and activities as part of the academic progression. There will be a terminal assessment either online or written examination at end of the course.
- All faculties after successfully completing the online refresher course will be certified. All in-service teachers, irrespective of their subject and seniority will register and
- complete these refresher courses which will help them in career advancement.

ARPIT will be every year exercise and NRCs will continuously develop new refresher module in their earmarked discipline each year. The training materials will be uploaded and made available through SWAYAM. In inaugural year 2018 itself, NRCs are expected to cater to around 13 lakh faculty of total 15 lakh faculty in higher education.

Massive Open Online Course (MOOC):

MOOC is a free Web-based distance learning program that is designed for the participation of large numbers of geographically dispersed students.

SWAYAM:

SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality.

- The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged.

- SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.
- SWAYAM platform is indigenously developed by Ministry of Human Resource Development (MHRD) and All India Council for Technical Education (AICTE) with the help of Microsoft.

BANNERGHATTA PARK'S ECO-SHIELD CUT DOWN BY 100 SQUARE KILOMETRES

Why in News: The protective layer around Bannerghatta National Park (BNP) has become smaller after a new draft notification further trimmed down the Eco-Sensitive Zone (ESZ) around the park to just 169 sq.km. In effect, the reduction in the ESZ, which regulates and prohibits certain activities that may destroy the forest, may open up more areas in the vicinity for mining and commercial development around the rapidly-urbanising Bengaluru city.

On November 5, the Ministry of Environment and Forests (MOEF) had issued a new draft notification for BNP, nearly 2.5 years after the first draft notification had declared an ESZ of 268.96 sq.km. In the latest notification, the ESZ was reduced to 168.84 sq.km. In the 24th meeting of the MOEF's Expert Committee in February 2017, the State government had requested for reduction of ESZ to 181.57 sq. km. Officials said the move was necessitated by political pressure to reduce the ESZ distance to 100 metres from the boundary of the park. The ESZ includes 77 villages while the national park has 17 hamlets (enclosures) within. The notification will kick into effect around December 30, and citizens can use the time in between to file objections.

Mining and Real Estate?

A look at the new notification shows that the ESZ has been trimmed primarily in areas towards Kanakapura and Bengaluru in the northern part of the 260.51 sq.km. protected area. If the original draft notification had planned an ESZ of between 100m and 4.5km from the forest boundary, the new one restricts this to between 100m and 1km.

- If the original draft had seen 61 villages come entirely under ESZ, the new notification covers them only till 1km from the boundary, freeing the rest of the village for "development". Among these villages are Kebbehalli and Thammanayakahalli where granite and stone mining take place. In these two villages alone, 14.63 sq.km. of ESZ has been cut.
- Areas where ESZ has been cut down drastically are either being mined or are prospective mining areas. The other sector that will benefit from the cutting down of ESZ is real estate as land has now been freed from environmental constraints along highways close to BNP.
- Unfortunately, it is also adjoining Bengaluru city. We could learn from places like Nairobi in Kenya that also has elephants, lions, leopards and other large mammals at the edge of the city, but these animals are well-protected from urbanization.

About Eco Sensitive Zone:

- The Environment Protection Act, 1986 does not mention the word "Eco-sensitive Zones".
- The section 3(2)(v) of the Act, says that Central Government can restrict areas in which any industries, operations or processes
- or class of industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards

The extent of the eco-sensitive zones could go upto 10 kms surrounding the protected area. However, in case where sensitive corridors, connectivity and ecologically important patches crucial for landscape linkages, are even beyond 10 kms width, these should be included in Eco-sensitive zones. Further the distribution of an eco-sensitive zone and the extent of regulation may not be uniform all around it and could be of variable width and extent.

About Bannerghatta National Park:

Bannerghatta National Park, near Bangalore, Karnataka, Karnataka, was founded in 1970 and declared as a national park in 1974.[1] In 2002 a portion of the park, became a biological reserve, the Bannerghatta Biological Park. It is a popular tourist destination with a

zoo, a pet corner, an animal rescue centre, a butterfly enclosure, an aquarium, a snake house and a safari park.[2] There are ancient temples in the park for worship and it is a destination for trekking and hiking. The Zoo Authority of Karnataka, the University of Agricultural Sciences, Bangalore, and the Ashoka Trust for Research in Ecology and Environment (ATREE), Bangalore, are collaborating agencies. Within the national park area are six rural villages enclosed within three large enclosures for sheep and cattle farming.

ISRO SUCCESSFULLY LAUNCHES

COMMUNICATION SATELLITE GSAT-29

Why in News: The Indian Space Research Organisation (ISRO) on November 14, 2018 successfully launched communication satellite GSAT-29 aboard its heavy-lift Geosynchronous Satellite Launch Vehicle Mark III (GSLV MkIII-D2). The launch took place at 05.08 hours from the second launch pad of the Satish Dhawan Space Centre at Sriharikota in Andhra Pradesh. The countdown for the launch had begun at 2.50 pm on November 13. The GSLV Mark-III rocket weighs around 640 ton and has a height of 43.4 metres.

Important Points:

The launch vehicle injected India's second high-throughput communication satellite GSAT-29 into its planned geostationary transfer orbit just over 17 minutes into its flight.

After injection, ISRO's Master Control Facility at Hassan assumed the control of the 3,423 kg satellite.

In the coming days, three orbit raising manoeuvres will be executed to position the satellite in the Geostationary Orbit at its designated location, at an estimated height of 36,000 km from the earth.

- Two massive boosters with solid propellant constitute the first stage, the core with liquid propellant form the second stage and the cryogenic engine completes the final stage.
- GSAT-29 is a multiband, multi-beam communication satellite, intended to serve as test bed for several new and critical technologies. The mission life of the satellite is over ten years.
- It carries Ka/Ku-band high throughput communication transponders, which are intended to cater to the communication requirements of users, including those in remote areas.
- The satellite will mainly aim to increase hi-speed communication facilities in the northeast, Jammu & Kashmir and other far-flung areas of the nation.
- The satellite also carries few other systems such as Q/V-band communication payload, for experimenting with the evolving technologies in satellite science.
- It also carries a Geo High Resolution Camera, which will carry out high resolution imaging and an Optical Communication Payload, which will demonstrate data transmission at a very high rate through optical communication link.
- The success of GSLV MkIII-D2 marks an important milestone in Indian space programme towards achieving self-reliance in launching heavier satellites. The success of this flight also signifies the completion of the experimental phase of GSLV Mark III.
- The first successful mission of GSLV Mark III was an experimental suborbital flight in 2014. Subsequently, GSLV Mark III-D1 launched GSAT-19, a high throughput communication satellite, with a lift-off mass of 3150 kg, into GTO on June 5, 2017.
- The current launch will help to bridge the digital divide.

Background:

GSLV Mk III is a three-stage heavy lift launch vehicle developed by the Indian Space Research Organisation (ISRO).

This is the second test flight of the launch vehicle. Its success will prove its reliability for future commercial launches.

- The same class of rocket is scheduled to be used for the upcoming Chandrayaan-II mission in January 2019 as well as the Gaganyaan mission.
- The four-ton class vehicle comprises three stages, beginning with the two solid strap-on motors on both the sides of the middle stage. The middle stage uses liquid fuel and the upper one is a cryogenic engine.

DELHI POLICE LAUNCHES E-LEARNING PORTAL 'NIPUN'

Why in News: Delhi Police Commissioner Amulya Patnaik launched the force's e-learning portal NIPUN and training division website. Through the website, Delhi Police will be using advanced technology in imparting in-service training to its personnel.

The aim

The e-learning portal aims to give online training and information through specialised courses designed by experts in the field.

With resources such as law, standing orders, investigation checklists, forms for case files, latest High Court and Supreme Court rulings being made available online through the e-learning portal, it is envisioned that the investigating officers will be able to take the benefit of this information during the course of their duty.

About NIPUN:

The online courses on this portal have been designed in collaboration with University Grant Commission (UGC), FICCI, NHRC, NCPCR and Janaki Devi Memorial College, Delhi University under project CLAP "The Collaborative Learning and Partnership". Delhi Legal Service Authority has also consented to be partner in developing specific courses for the Delhi Police.

It will have online courses and resources on law, standing orders, investigation checklists, forms for case files, latest High Court and Supreme Court rulings. It is envisioned that Investigating Officers (IOs) will be able to take benefit of this information during course of their duty or while handling case.

Through this portal Delhi Police officers can now access information by just logging on the portal. They can take course from anywhere at any time. It will make easier for the police officer to upgrade their skills and re-enforce their learning while balancing training time along with their daily routine work.

15.7% INCREASE IN CANCER CASES

Why in News: Cases of lip and oral cancer in India have more than doubled since 2012 as a result of increased consumption of alcohol and tobacco products, the Indian Council of Medical Research (ICMR) said on Wednesday. Lip and oral cavity cancer are the most common cancers among males in India. The apex research body under the health ministry, also said while releasing the latest cancer data for India that the number of fresh cancer cases and deaths have been rising since 2012.

GLOBOCAN:

ICMR collated the data from the International Agency for Research on Cancer (IARC), a World Health Organization (WHO) agency that compiles and publishes incidence and mortality data for 185 countries for 36 types of cancers. The IARC's Section of Cancer Surveillance released its latest global cancer data-the GLOBOCAN 2018-in September.

Around 18% of the world's population lives in India, so it becomes important to understand the disease burden of cancer in every state of the country.

Important Points:

According to the India fact sheet of Global Cancer Observatory (Globocan) 2018, cancer of the lip and oral cavity showed a huge increase of 114.2% with 56,000 cases in 2012 that increased to 119,992 in 2018.

The number of breast cancer cases increased by 10% from 145,000 in 2012 to 162,468 in 2018.

Alcohol consumption and increased usage of betel nut/areca nut, forms of tobacco such as sweet supari and other chewing products containing tobacco have a direct impact on human health.

Many people don't know that supari and other forms of tobacco can even cause sudden death. The rise in lip and oral cancers can be directly linked with alcohol and tobacco.

The usage of tobacco has decreased in India to an extent but alcohol consumption is certainly increasing. Moreover, with more diagnostic facilities available now and increased awareness, more and more cases are coming to notice.

More than 1.15 million new cancer cases were recorded in India in 2018, a 15.7% increase from 2012. The number of cancer-related deaths recorded a 12.1% spike with 784,821 cases in 2018 from 700,000 in 2012.

Therefore, a part of the 'Global Burden of Disease (GBD) Study' was carried out in our country. This study has been used to understand the variation in state-level burden of cancer as compared to the global burden.

According to the GBD study, breast cancer remains the most frequent cancer among Indians (males and females combined), followed by lip and oral cavity, cervix and lung cancers.

After lip and oral cavity cancers, the most common cancers among Indian males are of the lung, stomach and colorectal.

Cancer is the second most common killer in India after cardiovascular diseases. The ICMR in 2017 had said that India is likely to have over 1.7 million new cases of cancer and over 880,000 deaths due to the disease by 2020 with cancers of the breast, lung and cervix topping the list.

YUVA SAHAKAR-COOPERATIVE ENTERPRISE SUPPORT AND INNOVATION SCHEME

Why in News: Union Minister of Agriculture and Farmers' Welfare Radha Mohan Singh launched Yuva Sahakar-Cooperative Enterprise Support and Innovation Scheme of National Cooperative Development Corporation (NCDC). It is youth-friendly scheme aimed at attracting youth to cooperative business ventures.

Important Points:

The scheme would encourage cooperatives to venture into new and innovative areas.

NCDC has created a dedicated fund with liberal features enabling youth to avail the scheme. The scheme will be linked to Rs 1000 crore 'Cooperative Start-up and Innovation Fund (CSIF)' created by the NCDC. It would have more incentives for cooperatives of North Eastern region, Aspirational Districts and cooperatives with women or SC or ST or PwD members.

The funding for the project will be up to 80% of the project cost for these special categories as against 70% for others. The scheme envisages 2% less than the applicable rate of interest on term loan for the project cost up to Rs 3 crore including 2 years moratorium on payment of principal. All types of cooperatives in operation for at least one year are eligible.

About NCDC:

National Cooperative Development Corporation (NCDC) was established by an Act of Parliament in 1963 as a statutory Corporation under Ministry of Agriculture & Farmers Welfare. It has many regional centres to provide the financial assistance to Cooperatives/Societies/ Federations.

WORLD CUSTOMS ORGANISATION

(WCO) WAS HELD IN JAIPUR

Why in News: Four-day regional meeting of World Customs Organisation (WCO) was held in Jaipur, capital city of Rajasthan. It was attended by representatives of 33 member countries of Asia. The meeting was jointly chaired by WCO Deputy Secretary General Ricardo Travino and Central Board of Indirect Taxes and Customs Chairman S Ramesh.

Important Points:

- The meeting deliberated upon various issues including the steps required for the capacity building and reforms in customs.
- It also discussed and deliberated upon amended Kyoto protocol, digital customs, e-commerce among other issues.
- Summary of various efforts made by National Trade Facilitation Committee (NTFC) for trade
- facilitation was also tabled in the meeting.

About World Customs Organisation (WCO):

WCO is independent intergovernmental body whose mission is to enhance effectiveness and efficiency of Customs administrations. It was established in 1952 as Customs Co-operation Council (CCC). It is the only international organization with competence in Customs matters and is considered as voice of international Customs community.

It represents 182 Customs administrations across the globe that collectively process approximately 98% of world trade. It is headquartered in Brussels, Belgium. It plays leading role in discussion, development, promotion and implementation of modern customs systems and procedures.

- **Objectives:** It aims to enhance efficiency and effectiveness of member customs administrations and assist them to contribute successfully to national development goals, particularly revenue collection, national security, trade facilitation, community protection, and collection of trade statistics.
- **Organisaional Structure:** WCO's governing body - the Council relies on competence and skills of WCO Secretariat and a range of technical and advisory committees to accomplish its mission. The Secretariat comprises over 100 international officials, technical experts and support staff of some nationalities. WCO has divided its membership into six regions whereby each region is represented by elected vice-chairperson to WCO Council.

Functions: It offers range of Conventions and other international instruments, as well as technical assistance and training services to its members. It also actively supports its members in their endeavours to modernize and build capacity within their national Customs administrations.

It also plays vital role in stimulating growth of legitimate international trade and combats fraudulent activities. It also promotes emergence of honest, transparent and predictable Customs environment, thus directly contributing to economic and social well-being of its members.

THIRD ROUND OF QUAD DIALOGUE IN SINGAPORE

Why in News: The 33rd edition of the ASEAN Summit concluded on November 15, 2018 at Suntec Singapore Convention Centre, Singapore. The Summit also saw the conclusion of other related summits like 13th East Asia Summit (EAS), 2nd Regional Comprehensive Economic Summit, (RCEP) and ASEAN plus summits.

The opening ceremony of the summit was addressed by Lee Hsien Loong, Prime Minister of Singapore, Chairman of this year's Summit. In his speech, Lee Hsien Loong called on ASEAN members and partners to uphold multilateralism and international cooperation and tackle common challenges including terrorism and climate change. The Summit saw the presence of leaders of partner countries such as Russian President Vladimir Putin, Canadian Prime Minister Justin Trudeau, Indian President Narendra Modi and Japan's Prime Minister Shinzo Abe.

However, the US President Donald Trump and Chinese President Xi Jinping were not in attendance. The Vice President Mike Pence represented the US, while the Chinese side was represented by Premier Li Keqiang.

Important Points:

- Singapore as the current Chair of ASEAN is hosting these Summits.
- India also participated in 3rd “Quad” Meeting.
- The leaders of ASEAN’s 10 member countries reviewed ASEAN’s achievements in the year 2018 while mapping out a new course for the year ahead.
- Over 400 companies from over 100 countries took part as exhibitors in the summit.
- Apart from leaders of all 10 Association of Southeast Asian Nations (ASEAN) countries, heads of 8 key partner nations of ASEAN also participated.
- The ASEAN leaders adopted the ASEAN Smart Cities Framework and took stock of ASEAN’s achievements in 2018 in strengthening ASEAN’s resilience and innovation.
- The ASEAN leaders, along with their counterparts from countries participating in the Regional Comprehensive Economic Partnership (RCEP), discussed the process of the RCEP negotiations at the 2nd RCEP Summit.
- The leaders also exchanged views on regional and international issues with their counterparts at the 21st ASEAN Plus Three Summit and 13th East Asia Summit.
- Singapore PM Lee handed over the ASEAN Chairmanship to Thailand’s Prime Minister Prayut Chan-o-cha.
- Such meetings give a platform to India to have a greater role for the economic integration of the region and to ensure an open and inclusive Indo-Pacific.
- Such meetings help India to take a closer look at pressing issues in bilateral relations and the overall security and economic situation in India’s extended neighbourhood.

- India could work on the implementation of connectivity projects, such as the India-Myanmar-Thailand trilateral highway, and building new trade and transport linkages with all the ASEAN states.
- Many of the ten members of the ASEAN perceive India as a much-needed counterbalance to China.
- India also realises the centrality of ASEAN in its extended neighborhood through its ‘Act East Policy’.

What is Quad?

- It is the grouping of four democracies – India, Australia, the US, and Japan.

All four nations find a common ground of being democratic nations and also support the common interest of unhindered maritime trade and security.

The Quad is billed as four democracies with a shared objective to ensure and support a “free, open and prosperous” Indo-Pacific region.

The idea of Quad was first mooted by Japanese Prime Minister Shinzo Abe in 2007. However, the idea couldn’t move ahead with Australia pulling out of it, apparently due to Chinese pressure.

Finally, on November 12, 2017, India, Australia, the US and Japan, came together and formed this “quadrilateral” coalition.

About ASEAN:

The Association of Southeast Asian Nations, or ASEAN, was established in 1967 with the signing of the ASEAN Declaration (Bangkok Declaration). The ASEAN members are Indonesia, Thailand, Singapore, Malaysia, The Philippines, Vietnam, Myanmar, Cambodia, Brunei, and Laos.

On sidelines of 33rd ASEAN Summit, India-ASEAN Summit was also organized.

As strategic partners, India and ASEAN have trade and economic relations.

Trade between India and ASEAN stood at around \$ 81 billion in 2017-18 and constitutes 10% of India’s total trade. Exports to ASEAN countries constitute 11% of India’s total exports.

India and ASEAN have a combined population of 1.9 billion which is a quarter of the world’s population and the combined GDP of \$5 trillion.

In 2017, India and ASEAN celebrated 25 years of their engagement and the India-ASEAN Commemorative Summit was held on January 25th, 2017.

- India’s relation with ASEAN is marked by 3 C’s Culture, Commerce and Connectivity.

13th East Asia Summit:

- India also participated in 13th East Asia Summit.
- The East Asia Summit (Established: 2005) is a forum of 18 countries of the Asia-Pacific region formed to further the objectives of regional peace, security, and prosperity. There are six priority areas of regional cooperation within the framework of the EAS: Environment and Energy, Education, Finance, Global Health Issues and Pandemic Diseases, Natural Disaster Management, and ASEAN Connectivity.
- India endorses regional collaboration in all six priority areas.
- The members of East Asia Summit consists of 10 ASEAN nations (Indonesia, Thailand, Singapore, Malaysia, The Philippines, Vietnam, Myanmar, Cambodia, Brunei, and Laos), and 8 other members-Australia, China, India, Japan, New Zealand, South Korea, Russia, and the US.

ADB INKS LOANS AGREEMENTS FOR VARIOUS PROJECTS IN INDIA

Why in News: The government of India and the Asian Development Bank (ADB) signs three separate loans in one day of worth USD 574 million in the capital of India to support the projects India Infrastructure Finance Company Limited (IIFCL) in India, water and sanitation services in Tamil Nadu, and Hydropower Transmission in Himachal Pradesh.

Established in 1966, the ADB is committed to achieve a prosperous, inclusive, resilient and sustainable Asia and the Pacific. It is owned by 67 members with 48 from the Asia and the Pacific region.

USD 105 million loan agreement to support hydropower transmission in Himachal Pradesh:

- The ADB and the Union Government signed a USD 105 million loan agreement to continue financing the transmission system upgrades in Himachal Pradesh for increased supply of hydropower.

This tranche 3 loan is part of the USD 350 million multi-tranche financing facility (MFF) for Himachal Pradesh Clean Energy Transmission Investment Program approved by the ADB Board in September 2011.

The program is aimed at developing and expanding the transmission network to evacuate clean and renewable power generated from the State's hydropower sources to load centers.

It also supports the institutional capacity development of the state transmission utility, Himachal Pradesh Power Transmission Corporation Limited (HPPTCL), as the executing agency for the project.

The loan will have a 25-year term, including a grace period of 5 years.

USD 300 million loan agreement to support IIFCL in India:

The ADB and Union Government signed a USD 300 million Loan Agreement to support lending by India Infrastructure Finance Company Limited (IIFCL).

The ADB funding is expected to fund at least 13 sub-projects through IIFCL, including roads and renewable power generation, under the last tranche.

The Project supports the renewed effort of the Government in accelerating infrastructure growth through increased Private Sector investment.

The will help catalyse the financial closing of USD 2.4 billion in investments.

In addition, the attached technical assistance will support IIFCL capacity development and will focus on IIFCL's financial management and social and environmental safeguards.

USD 169 million loan agreement to provide water and sanitation services in Tamil Nadu:

The ADB and Union Government signed USD 169 million loan as the First Tranche of a USD 500 million multi-tranche financing to develop climate-resilient water supply, sewerage, and drainage infrastructure in at least 10 cities of Tamil Nadu.

- The program will develop climate-resilient sewerage collection and treatment and drainage systems in 10 cities, and install the country's first solar-powered sewage treatment plant.
- Introduction of smart water management systems will help reduce non-revenue water and strengthen operational efficiency.
- Around 4 million people will benefit from piped water and sewerage connections and improved drainage.
- The program will boost institutional capacity, public awareness, and urban governance as part of a comprehensive approach for developing livable cities.
- The First Tranche Loan will target the cities of Chennai, Coimbatore, Rajapalayam, Tiruchirappalli, Tirunelveli, and Vellore.

CLARIFICATION REGARDING MATERNITY LEAVE INCENTIVE SCHEME

Why in News: The Ministry of Labour & Employment has come up with clarification with respect to Maternity Leave Incentive Scheme. There were some media reports that this Scheme has been approved/notified. However, it is clarified that Ministry of Labour & Employment is in the process of obtaining necessary budgetary grant and approvals of Competent Authorities. The reports that it will be funded from Labour Welfare Cess, is also incorrect, as no such cess exists under this Ministry.

The Building and Other Construction Workers' Welfare Cess (BOCW) Act, 1996 provides for collection of cess for construction workers by states/union territories. The State and the Local governments collect the Cess and then transfer to the State Welfare Boards. The states/UTs should ensure that the welfare schemes funded from cess fund should be exclusively for building and other construction workers only. Diversion of cess

fund for welfare of other category of workers is not permissible under the BOCW Act.

Background:

- The Maternity Benefit Act, 1961 applies to establishments employing 10 or more persons in Factories, Mines, Plantation, Shops & Establishments and other entities.
- The main purpose of this Act is to regulate the employment of women in certain establishments for certain period before and after childbirth and to provide maternity benefit and certain other benefits. The Act was amended through the Maternity Benefit (Amendment) Act, 2017 which, inter alia, has increased the paid maternity leave to women employees from 12 weeks to 26 weeks.

While the implementation of the provision is good in Public Sector, there are reports that it is poor in Private Sector and in contract jobs.

There is also a wide perception that private entities are not encouraging the hiring of women employees because if they are employed, they may have to provide maternity benefit to them, particularly 26 weeks of paid holiday.

Therefore, the extended maternity leave has become a deterrent for female employees who are asked to quit or retrenched on flimsy grounds before they go on maternity leave.

Proposed Solution:

The Ministry of Labour & Employment is working on an incentive scheme wherein 7 weeks' wages would be reimbursed to employers who employ women workers with wage ceiling upto Rs. 15000/- and provide the maternity benefit of 26 weeks paid leave, subject to certain conditions.

Major Impact:

- The proposed Scheme, if approved and implemented shall ensure the women in this country an equal access to employment and other approved benefits along with adequate safety and secure environment.
- The workplaces will be more and more responsive to the family needs of the working women.

STATES DENY CONSENT TO CBI

Why in News: The Andhra Pradesh and West Bengal governments withdrew “general consent” to the Central Bureau of Investigation (CBI) for investigating cases in their respective states.

In Past several states have withdrawn consent like Sikkim, Nagaland, Chhattisgarh and Karnataka.

What is general consent?

Unlike the National Investigation Agency (NIA), which is governed by its own NIA Act and has jurisdiction across the country, the CBI is governed by the Delhi Special Police Establishment Act that makes consent of a state government mandatory for conducting investigation in that state.

There are two kinds of consent: case-specific and general. Given that the CBI has jurisdiction only over central government departments and employees, it can investigate a case involving state government employees or a violent crime in a given state only after that state government gives its consent.

“General consent” is normally given to help the CBI seamlessly conduct its investigation into cases of corruption against central government employees in the concerned state. Almost all states have given such consent. Otherwise, the CBI would require consent in every case. For example, if it wanted to investigate a bribery charge against a Western Railway clerk in Mumbai, it would have to apply for consent with the Maharashtra government before registering a case against him.

What does withdrawal mean?

It means the CBI will not be able to register any fresh case involving a central government official or a private person stationed in these two states without getting case-specific consent. “Withdrawal of consent simply means that CBI officers will lose all powers of a police officer as soon as they enter the state unless the state government has allowed them,” said a former CBI officer who has handled policy.

Under what provision has general consent been withdrawn?

GO (government order) number 176 issued by the Andhra Pradesh Home Department by Principal Secretary A R Anuradha on November 8 states: “In exercise of power conferred by Section 6 of the Delhi Special Police Establishment Act, 1946 (Central Act No 25 of 1946), the government hereby withdraws the general consent accorded in GO No 109 Home (SC.A) Department dated August 3, 2018 to all members of the Delhi Special Police Establishment to exercise the powers and jurisdiction under the said Act in the State of Andhra Pradesh.”

Section 6 of the Act says, “Nothing contained in Section 5 (which deals with jurisdiction of CBI) shall be deemed to enable any member of the Delhi Special Police Establishment to exercise powers and jurisdiction in any area in a State, not being a Union Territory or Railway, area, without the consent of the Government of that State.”

Impact of Withdrawal of General Consent:

It means the CBI will not be able to register any fresh case involving a central government official or a private person stationed in these two states without getting case-specific consent.

Withdrawal of consent will only bar the CBI from registering a case within the jurisdiction of Andhra and Bengal. The CBI could still file cases in Delhi and continue to probe people inside the two states.

Cases registered anywhere else in the country, but involving people stationed in Andhra Pradesh and West Bengal, would allow CBI’s jurisdiction to extend to these states.

In simple terms withdrawal of consent simply means that CBI officers will lose all powers of a police officer as soon as they enter the state unless the state government has allowed them.

It will have no impact on investigation of cases already registered with CBI as old cases were registered when general consent existed.

What happens in fresh cases?

Withdrawal of consent will only bar the CBI from registering a case within the jurisdiction of Andhra and Bengal. The CBI could still file cases in Delhi and continue to probe people inside the two states.

An October 11, 2018, order of the Delhi High Court makes it clear that the agency can probe anyone in a state that has withdrawn “general consent” if the case is not registered in that state. The order was given with regard to a case of corruption in Chhattisgarh, which also gives consent on a case-to-case basis. The court ordered that the CBI could probe the case without prior consent of the Chhattisgarh government since it was registered in Delhi.

Thus, if a state government believes that the ruling party’s ministers or members could be targeted by CBI on orders of the Centre, and that withdrawal of general consent would protect them, it would be a wrong assumption, experts say. A CBI officer said: “CBI could still register cases in Delhi which would require some part of the offence being connected with Delhi and still arrest and prosecute ministers or MPs. The only people it will protect is small central government employees.”

BREXIT DRAFT DEAL

Why in News: British Prime Minister Theresa May has a potential Brexit deal — and it just cleared its first major hurdle. May announced, after a marathon five-hour meeting with her cabinet, that her ministers have agreed to a draft agreement on the terms of the United Kingdom’s exit — or “Brexit” — from the European Union, more than two years after the UK voted to leave. “I firmly believe it’s the best agreement that could be negotiated,” May told reporters outside 10 Downing Street. She added that this was a “decisive step,” but acknowledged there would be “difficult days ahead” as she tries to sell her plan to the rest of Parliament.

The European Union and the United Kingdom have been scrambling to reach an agreement by the end of the year, to give both the UK and EU parliaments time to ratify it before the approaching March 29, 2019 deadline. At that point, the UK will leave the EU — deal or no deal. And the consequences of a “no-deal” Brexit could be dire.

Important Points:

Both the UK and the EU want to avoid that scenario, and the existence of a nearly 600 page plan is a promising sign. But a lot of hurdles remain, the biggest one being May’s own Conservative Party, which is split between those who want a less dramatic break with the EU and headline “Brexiters” who want a

clean and decisive split. The border between Northern Ireland, which is part of the UK, and the Republic of Ireland, which is part of the EU, has also proven to be a huge sticking point in negotiations.

● **Opposition from within the UK could kill any Brexit deal, even if the 27 European member-states and the EU parliament go along with it. May has now passed the first critical test: getting her ministers to back her plan. But a Brexit deal is far from done — and the March deadline is inching closer.**

The UK and the EU are in the midst of trying to finalize the terms of their breakup, a tangled process that’s gone on for more than a year.

Some aspects of the agreement have already been worked out, but neither side has been able to agree on the fundamental question of what the post-Brexit relationship would look like.

At the center of this is the thorny question of the Irish border. The UK’s membership in the EU helped preserve an open border between Northern Ireland and the Republic of Ireland, which is a critical pillar of the 1998 Good Friday Agreement. That agreement ended decades of sectarian conflict in Northern Ireland between the largely Protestant population who wanted to stay within the UK, and Catholics, who identified more closely with the Republic of Ireland.

Brexit potentially threatens this open border and the past two decades of relative peace. However, the EU and the UK believe that they’ll be able to work something out in a future trade deal to be negotiated during a 21 month transition period after March 29, 2019.

The EU, though, has insisted that any withdrawal agreement include a “backstop” — basically, a guarantee that even if the EU and the UK don’t reach a trade agreement by the end of the transition period (December 2020), an open border between Northern Ireland and Ireland will remain in place, no matter what.

● **But determining what that “Irish backstop” would actually look like is another issue.**

The EU had proposed that Northern Ireland essentially maintain the status quo and remain in the EU customs union and its regulatory area — which means the Republic of Ireland and Northern Ireland follow the same rules, so there’s no need for customs and border checks.

But May has rejected any plan that treats Northern Ireland differently from the rest of the UK because it would effectively create a hard border within her own country.

What is BREXIT?

BREXIT: The Exit of Britain from European Union

BREXIT, a single amalgam of 6 letters has managed to bring forth numerous strata of people, politicians, academicians, advocacy groups and commoners alike, with either appreciative nods or distasteful disagreements in the spiteful debates and deliberations.

About EU:

The European Union (EU) is a unique economic and political partnership between 28 European countries that together cover much of the continent. It was created in the aftermath of the Second World War. The first steps were to foster economic cooperation: the idea being that countries that trade with one another become economically interdependent and so more likely to avoid conflict. The result was the European Economic Community (EEC), created in 1958, and initially increasing economic cooperation between six countries: Belgium, Germany, France, Italy, Luxembourg and the Netherlands. Since then, a huge single market has been created and continues to develop towards its full potential.

MAHARASHTRA CABINET PASSES MARATHA RESERVATION BILL

Why in News: The state cabinet of Maharashtra passed the Maratha Reservation Bill, approving reservation for the Maratha community. The bill is likely to be tabled during the winter session of the state's legislative assembly.

The state government made the decision based on the recommendations of the Maharashtra State Backward Class Commission, whose report was submitted to the state's Chief Secretary DK Jain on November 15. The move follows months of massive protests by members of the community demanding reservation in education and jobs.

Important Points:

Maharashtra's Chief Minister Devendra Fadnavis announced that independent reservation will be given to the Maratha community under a new category called SEBC (socially and economically backward category).

The Marathas will get the reservation from an independent quota and it is not expected to affect the reservations given to the Other Backward Class (OBC).

The State Commission for Backward Class had stated in its report that extraordinary and exceptional circumstances prevail among the Marathas, which makes them eligible to reap the benefits of reservation.

The commission's report stated that Marathas are a "socially and educationally backward class of citizens" with minuscule representation in government and semi-government services.

The percentage of the reservation for the Maratha community will be decided by a sub-committee, which will be constituted by the state cabinet to take statutory steps for the implementation of the recommendations of the backward commission.

Maharashtra CM Fadnavis had said last week that all statutory formalities over the quota issue will be completed in the next 15 days and that the Maratha community should get ready to celebrate on December 1.

- The Maharashtra State Backward Class Commission's report on the social and economic conditions of the Marathas, favouring the grant of quota to the community was submitted to the Chief Secretary on November 15.

The Maratha community, which accounts for 30 per cent of the state's total population, has been protesting since 2017, demanding reservation in government jobs and educational institutions.

INDUS VALLEY CIVILISATION COLLAPSED DUE TO CLIMATE CHANGE

Why in News: A study of Scientists led by the University of Cambridge and Banaras Hindu University has suggested that Climate change contributed in the fall of the Bronze Age Indus Valley Civilisation (also known as the Harappan Civilisation), which spanned across present India and Pakistan.

The study has revealed that the Bronze Age megacities declined during the 21st and 20th centuries BC and never recovered back following a series of droughts that lasted for about 200 years in the zone of Indus valley.

To study on the concept of the collapse the team of British Scientists studied snail shells that were preserved in the sediments of an ancient lake bed Kotla Dahar in Haryana. They analysed oxygen isotopes of the shell and calculated the amount of rain that happened in the lake thousands of years ago.

Important Points:

- The study looked at sediments from the Arabian Sea from the continental margin of Pakistan, reconstructed the Indian winter monsoon for the last 6,000 years, and examined undersea fossils and marine DNA.
- The seafloor near the mouth of the Indus is a very low-oxygen environment, so whatever grows and dies in the water is very well preserved in the sediment. Hence, it was used as a sample.
- Indian monsoon is the annual phenomenon that collects moisture from the Indian Ocean and spreads it over the Indian subcontinent in the form of rainfall. It influences climate in the region on a large scale and is crucial for the prevalent of annual weather patterns.

- A sizable population in the region, which is engaged in agriculture, depends on monsoon for their livelihood and survival even in the present time.
 - More than 4,000 years ago, the Harappa culture thrived in the Indus River Valley of what is now modern Pakistan and northwestern India.
 - They built sophisticated cities, invented sewage systems that predated ancient Rome's, and engaged in long-distance trade with settlements in Mesopotamia.
- However, by 1800 BCE, this advanced culture had abandoned their cities, moving instead to smaller villages in the Himalayan foothills.

Findings:

First, a wetter winter monsoon may have led to urban Harappan society turning into a rural one, as inhabitants migrated from a summer flood-deficient river valley to the Himalayan plains.

Later, a decline in the winter monsoon could have played a role in the demise of the rural late Harappans.

A shift in temperatures and weather patterns over the Indus Valley caused summer monsoon rains to gradually dry up, making agriculture difficult or impossible near Harappan cities.

Records for the last 4,500 years generally indicate that temperatures were lower than the Holocene thermal maximum. A general cooling, known as the neoglaciation, occurred between 2,500 and 4,500 years ago.

Floods in the Indus and tributary rivers became less severe and probably less predictable which affected the Indus people who depended a lot on inundation agriculture.

Changing character of the Indian monsoon affected atmospheric temperatures and the flow of rivers originating in the Himalayas. Both the changing temperature and the changes in river flow would have influenced the crops that were grown in the region.

- Ghaggar-Hakra, which is the probable course of the Saraswati river, dried at the same time.

Between 4,500 and 3,000 years ago, strong winter monsoons were characterised by “early neoglacial anomalies (ENA)” that is characterised by changes in wind and precipitation patterns that are evident across the eastern Northern Hemisphere and tropics.

It was this coordinated climate reorganisation that may have helped trigger the transformation of the urban Harappan civilisation into a rural society. During that time the Indo-Aryan culture was arriving in the region with Iron Age tools and horses and carts.

- The Indus story is important today because it provides us with a vivid example of what climate change could do to people. The Indus people were smart and had ways to cope with climate.
- The study provides a powerful lesson for today as the migration out of Syria and African countries has some roots in climate change.
- Also, sea level rise in recent times due to climate change can lead to huge migrations from low lying regions like Bangladesh, or from hurricane-prone regions in the southern U.S.
- The Harappans could cope with the change by migrating but owing to the existing rigid political boundaries with the increasing tendency of protectionism, this option is nearly closed in today’s global scenario which ultimately can cause political and social convulsion.

Background:

Ancient Indus Valley Civilization city also known as the Mohenjo Daro or Mound of the Dead flourished between 2600 and 1900 BC. It was one of the first world and ancient Indian cities. The site was discovered in the 1920s and lies in Pakistan’s Sindh province. The civilisation is considered almost as old as those of Egypt and Mesopotamia.

KERALA TO REIN IN TRANS-FAT IN EATERY FOOD

Why in News : The Health Department and the Food Safety wing have launched an initiative to enforce dietary guidelines, involving the reduction of trans fatty acids

(TFAs), salt and sugar in commercially available foods in Kerala. The initiative is being launched with technical support from the World Bank, WHO and the Food Safety and Standards Authority of India (FSSAI). Unhealthy diet is pushing up Metabolic Syndrome (MS) and premature deaths due to non-communicable diseases (NCDs) among Keralites.

What is Metabolic syndrome (MS) ?

Metabolic syndrome (MS) is a cluster of metabolic abnormalities — high blood pressure, high blood sugar, abdominal obesity, abnormal cholesterol or triglyceride levels — that occur together, raising risk of heart disease, stroke and diabetes.

Important Points:

- Earlier, Kerala also announced a 14.5% “fat tax” on pizzas, burgers, sandwiches and tacos sold through branded outlets, in sync with the World Health Organization’s advocacy of using fiscal tools to promote healthy eating.
- WHO recommends that trans fat intake be limited to less than 1% of total energy intake and has called for the total elimination of TFAs in global food supply by 2023.
- REPLACE, which is an acronym for Review, Promote, Legislate, Assess, Create and Enforce, is the first global initiative to eliminate a risk factor for cardiovascular disease. It is a World Health Organisation (WHO) six step Action Package and guide to global elimination of trans fat.
- Denmark was the first country to ban trans fat in 2003 and in three years, their Cardiovascular Disease (CVD) mortality rates plummeted.

As part of the U.N.'s Sustainable Development Goals, the global community has committed to reducing premature death from noncommunicable diseases by one-third by 2030 (Goal 3). Global elimination of industrially-produced trans fats will help achieve this goal.

Given India's disease burden of non-communicable diseases and also the urban movement towards healthier foods, this movement is vital for the country to prevent diseases, and the compromised quality of life and deaths caused due to trans fats.

Fortunately, the Food Safety and Standards Authority of India (FSSAI) has indicated its commitment to eliminating industrially produced trans fat by 2022 in advance of the WHO target date of 2023.

In 2017, India implemented a mandatory limit of 5% trans fat content in fats/oils only.

Trans-fats:

There are two types of trans-fats found in foods- naturally occurring and artificial trans-fats.

Naturally occurring trans-fats are produced in the gut of some animals and foods made from these animals may contain small quantities of these fats.

Artificial trans-fats on the other hand are created by the process hydrogenation, which is an industrial process that adds hydrogen to liquid vegetable oils to make them more solid at room temperature.

The primary dietary source of trans-fats in processed foods is partially hydrogenated oils. Trans-fats are easy to use, inexpensive to produce and last a long time. They help give foods a desirable taste and texture.

Some of the most basic and most consumed foods that we generally eat almost on a daily basis may include- cakes, pies, cookies, biscuits, margarine, cream-filled candies, fried fast foods, doughnuts, etc.

About Food Safety and Standards Authority of India (FSSAI):

The Food Safety and Standards Authority of India (FSSAI) has been established under Food Safety and Standards Act, 2006 which consolidates various acts

& orders that have hitherto handled food related issues in various Ministries and Departments.

Ministry of Health & Family Welfare, Government of India is the Administrative Ministry for the implementation of FSSAI. The Chairperson is in the rank of Secretary to Government of India.

FSSAI has been created for laying down science-based standards for articles of food and to regulate their manufacture, storage, distribution, sale, and import to ensure availability of safe and wholesome food for human consumption.

VAJRA PRAHAR : INDIA – USA JOINT MILITARY EXERCISE

Why in News : The 12-day long joint military exercise between India and the United States known as 'Vajra Prahar' commenced in Jaipur. A contingent of the United States Pacific Commander arrived at Mahajan Field Firing Ranges on November 18 for undertaking Joint training with the Indian Special Forces.

Important Points:

For this exercise, US Army is represented by contingent of one officer and 10 Other Ranks from Special Forces Group of United States Pacific Command.

They will carry out 12 days rigorous joint training in semi desert and rural terrain with aim to enhance inter-operability of the two armed forces and further military to military co-operation.

The contingents of both countries in this exercise, will train on aspects such as hostage rescue, building intervention, desert survival, medical aid and combat firing. At the end of training, they will undertake a three-day outdoor exercise to validate their best practices.

‘INSTITUTION’S INNOVATION COUNCIL (IIC)’PROGRAM

Why in News : Institution’s Innovation Council (IIC) Program of Ministry of Human Resource Development’s (HRD) Innovation Cell was launched in New Delhi by Union HRD Minister Prakash Javadekar. HRD Ministry has established Innovation cell at AICTE with purpose to systematically foster culture of Innovation in all Higher Education Institutions (HEIs) across the country.

Objective:

The main purpose behind the formation of the network of Institution’s Innovation Councils (IICs) is to encourage, inspire and nurture young students by exposing them to new ideas and processes resulting in innovative activities in their formative years.

Important Points:

More than 1000 Higher Education Institutions (HEIs) have already formed IICs in their campuses and enrolled for the IIC network managed by MHRD’s Innovation cell to promote innovation through multitudinous modes leading to an innovation promotion eco-system in their campuses.

In most developed countries, Universities are the main research centers and because of their research, the nations get top ranks in the global innovation ranking.

Now, Indian universities are also setting up research centers through the Institution’s Innovation Council programme.

Through this initiative, India hopes to get a good rank in global innovation ranking in the next 2-3 years.

Conclusion:

According to the HRD Minister, educational advancement in higher education can only be achieved by encouraging best practices in innovation and advance research and the Innovation Cell has undertaken many initiatives in this direction such as implementing programmes like Atal Ranking of Institutions on Innovation Achievement (ARIIA) and Smart India Hackathon (SIH)- 2019. He further said that the IIC programme will contribute in the holistic development of education in the country.

J&K GOVERNOR’S MOVE TO DISSOLVE ASSEMBLY ‘OPEN TO CHALLENGE

Why in News : Jammu and Kashmir Governor Satya Pal Malik’s decision to dissolve the state assembly despite rival alliances staking claim to form the government is liable to be challenged, experts have opined, but neither of the sides has yet made any move to approach the courts.

Important Reasons:

1. The impossibility of forming a stable government by the coming together of political parties with opposing political ideologies including some which have been demanding dissolution of the Assembly; whereas the experience of the past few years shows that with the fractured mandate that is there in the Assembly, it is not possible to form a stable government comprising of like-minded parties. The coming together of such parties in a grouping is nothing but an attempt to gain power rather than to form a responsive government.
2. Reports of extensive horse trading and possible exchange of money in order to secure the support of legislators belonging to widely diverging political ideologies just to be able to form a government. Such activities are not healthy for democracy and vitiate the political process.
3. Serious doubts about the longevity of any such arrangement where there are competing claims of majority.
4. The fragile security scenario in the state of Jammu and Kashmir where there is a need to have a stable and supportive environment for security forces which are engaged in extensive anti-militancy operations and are gradually gaining control over the security situation.

President's rule to be imposed:

- The Governor's rule was imposed in the state on June 19 for a 6-month period following the collapse of the PDP-BJP coalition government after the BJP withdrew its support.
- The state assembly was kept in suspended animation so that political parties could explore the possibility of forming a new government.
- The six-month tenure of the Governor's rule is scheduled to end on December 18, after which the state will be put under the President's rule till it goes into polls.

The state went to polls at the end of 2014 and the Assembly's tenure was till October 2020.

- The Governor has decided to hold elections at an appropriate time so that a government with a clear mandate is formed.

Background:

- The governor released the communiqué after People's Democratic Party (PDP) leader and former chief minister Mehbooba Mufti released a letter on Twitter announcing that she would seek to form the government with her traditional rivals, the National Conference (NC) and Congress.
- The former Chief Minister and PDP President, Mehbooba Mufti staked claim to form the government in the state by saying that her party, which is the largest party in the assembly with 29 MLAs, had the backing of 15 lawmakers of National Conference and 12 of Congress.

Earlier, both NC and Congress had demanded the dissolution of the assembly to avoid horse-trading and possible poaching of legislators amid the emergence of the Lone-led front.

- Mufti's letter was followed by People's Conference Chief Sajad Lone's letter to the governor, in which he staked claim to form the government with the support of the BJP, which has 25 seats and more than 18 other elected members. People's Conference has just two seats in the assembly.

The majority mark required to form the government in the state's 87-member assembly is 44.

BEYOND KILLING OF AMERICAN NATIONAL: SOVEREIGN CITIZENS OF INDIA

Why in News : An American citizen identified as John Allen Chau was found murdered on North Sentinel Island in the Andaman archipelago. His body was spotted by local fishermen. A local publication Andaman Sheekha reported that Chau was hell-bent on making contact with the people of Sentinelese community, an extremely private indigenous tribe.

John Allen Chau was reportedly on a mission to preach Christianity to the Sentinelese people and made at least six attempts to establish contact with the elusive and fiercely protective tribe.

The American citizen hired local fishermen as guides. Some of these fishermen were booked by the Union Territory police under the Protection of Aboriginal Tribes Act. Forced contact with the people on the North Sentinel Island is forbidden under the law.

Important Points:

In August this year, the Modi government removed the Restricted Area Permit (RAP) from 29 islands in Andaman Islands. North Sentinel Island is one of these islands. The RAP was removed with the objective of promoting tourism.

The order will remain in force till December 2022. This means that foreigners are no longer required to seek permission to visit any of these islands. So, victim Chau apparently did not commit any illegality when he entered North Sentinel.

- The only problem was that the Sentinelese people don't like outsiders. They have lived a closed community life on this island for about 60,000 years, when they are believed to have migrated here from North Africa.

The Sentinelese people are recognised among the Particularly Vulnerable Tribal Groups (PVTGs) of the Andaman and Nicobar Islands and various laws including the Andaman and Nicobar Protection of Aboriginal Tribes Regulation (ANPATR), 1956 were framed to ensure their protection.

- In 2006, two reportedly drunk men went deep into North Sentinel Island after a fishing expedition and were allegedly killed by the Sentinelese. When an Indian Coast team helicopter went to retrieve their bodies, it was attacked with arrows and stones.
- The Sentinelese tribe was thereafter allowed to live as sovereign people on an island in India. The August order of the Centre may change the equation one more time.
- The population of the Onge people is only about 100. There is not much information about the Shompen people either. Their known number was only 13 but experts believe that more Shompen people could be living in the hilly areas.
- The Jarawa community lives of hunting animals and gathering fruits from the forests. A measles outbreak in 1999 was feared to have wiped out the entire tribe and race. But they were later found to be living on the island.

Who are Sentinelese people?

Sentinelese is considered to be the most private of the five very reclusive tribes in the Andaman and Nicobar Islands. The other four are: the Great Andamanese, the Onge, the Shompen and the Jarawa.

The population of Sentinelese people has not been correctly enumerated. In 2001, their headcount was 39 - 21 men and 18 women. They were among the tribes that survived the tsunami of 2004 without any help from the outside world.

Experts believe that their own knowledge and understanding of the oceanic geography gave them advantage over the machine-equipped people in the neighbouring areas. Nearly 2.28 lakh people died in that tsunami but Sentinelese people survived with minimum loss.

For 2011 Census, the enumerators could locate only 15 Sentinelese people - 12 men and three women. However, their numbers could be anything between 40 and 400.

Sentinelese people are believed to be the only pre-Neolithic people in the world. This means they have a culture that existed in the middle period of Stone Age. Their use of metals is not specifically known with many believe that they don't use metals for purposes other than in weapons.

The other four tribes:

The Great Andamanese live on the Great Andaman Island. They were named so by the British, who fought a bitter war with them in 1859. The tribe fought fiercely before they surrendered in what is known as the Battle of Aberdeen. Their estimated population at that time was 8,000. Today, they number only about 50.

Why the Sentinelese are special:

Wikipedia records that around 1880, a young British officer Maurice Vidal Portman tried to bring Sentinelese people into the mainstream of development. He set out on an expedition deep into the forests and hills of North Sentinel Island.

After several days of the expedition, Portman captured six Sentinelese people - an elderly couple and their four children. They were all brought to Port Blair, the capital of Andaman and Nicobar Islands. The elderly couple contracted and died of diseases they had not built immunity for. Their children were later released back on the island. The British never set their feet on the island again.

After Independence, the Indian government launched a similar mission in 1967 under the department of tribal affairs. The first somewhat successful contact with the Sentinelese people could be made only in 1991. But the constant probing into their territory had a side effect.

The Sentinelese people started targeting anyone getting close to the shore. But as the ships carried gifts and articles of use, they allowed boats to anchor near the coast and when after some of the goods were offloaded, they would shoot arrows at the visitors.

It became difficult for the government or a private party to make contact with Sentinelese tribe. Finally in 1996, the government abandoned its programme to make contact with Sentinelese tribe.

The Sentinelese tribals are practically the sovereign people of India. If an outsider is attacked and killed by them for trespassing or trying to make contact with them, the police do not prosecute them. They enjoy immunity as protection of the tribe is of paramount anthropological significance.

INDIA, AUSTRALIA SIGN 5 PACTS TO BOOST BUSINESS AND EDUCATION LINKS

Why in News : India and Australia on November 22, 2018 signed five agreements to boost investments and enhance cooperation in areas including services to the disabled, bilateral investment, scientific collaboration and agricultural research and education.

The agreements were signed during the talks held between Indian President Ram Nath Kovind and Australian Prime Minister Scott Morrison in Sidney, Australia. The Indian President has become the first-ever Indian head of state to visit Australia. He arrived in the country on November 21, as a part of the second leg of his two-nation trip.

Five Agreements:

1. Agreement between the Government of India and the Government of Australia for cooperation in the area of disability and to deliver services to the differently-abled.
2. Agreement between Invest India and Austrade to facilitate bilateral investment.
3. Agreement between the Central Mine Planning and Design Institute, based in Ranchi and the Commonwealth Scientific and Research Organisation, based in Canberra, to foster scientific collaboration and innovation.
4. Agreement between the Acharya NG Ranga Agricultural University, Guntur and the University of Western Australia, Perth, for cooperation in agricultural research and education.
5. Joint Ph.D. agreement between the Indraprastha Institute of Information Technology, Delhi and the Queensland University of Technology, Brisbane.

Important Points:

The agreements were exchanged by High Commissioners of both the countries, in the presence of Marise Payne, Foreign Minister of Australia and Anantkumar Hegde, Minister of State for Skill Development and Entrepreneurship.

Following the high-level delegation meeting, Australian Prime Minister Morrison announced the release of Australia's response to the India Economic Strategy, a blueprint to transform the economic engagement.

The report mainly highlights Australia's aim of deepening economic engagement with India, targeting 10 Indian states and 10 key sectors, while providing practical support for Australian businesses entering or expanding operations in India.

CABINET CLEARS CORRIDOR FOR KARTARPUR UP TO PAKISTAN BORDER

Why in News : The Union cabinet has approved the construction of a 'corridor' linking India with the historic Kartarpur Gurudwara on the banks of the Ravi river, in

Pakistan. Kartarpur gurudwara is the revered shrine across the border where Guru Nanak Dev, the founder of Sikhism spent the last 18 years of his life. The corridor will connect the holy shrines of Dera Baba Nanak

Sahib in Gurdaspur district of Punjab

in India with Gurudwara Darbar Sahib in Kartarpur in Pakistan.

Important Points:

The length of the corridor is about 4 km (2 km on either side of the international border).

The Pakistan government has also decided to open the corridor.

The corridor will commemorate the 550th birth anniversary of Guru Nanak Dev.

Pilgrimages between India and Pakistan are governed by the 1974 Protocol on Visits to Religious Shrines, which includes a list of shrines in Pakistan and India open for visitors from the other country, and for which visas are required.

The Kartarpur Corridor, which will provide visa-free access to the shrine when it becomes ready on both sides, may need a separate treaty.

The Kartarpur Sahib corridor was first proposed in 1999 when Prime Minister Atal Bihari Vajpayee took a bus ride to Lahore.

- The Kartarpur corridor will be implemented as an integrated development project with Government of India funding. The development comes ahead of the 550th Prakash Purab or 550th birth anniversary of Guru Nanak in 2019.
- It will allow Indian devotees to visit Kartarpur shrine located 2 km inside Pakistan in Narowal district.
- Until now, most Indian devotees have had to contend with a darshan using binoculars installed at Dera Baba Nanak Sahib.
- India has also asked Pakistan to develop the corridor with suitable facilities in its territory from the International Border to facilitate easier access of Indian pilgrims.
- The forward movement on the Kartarpur corridor can be considered a big development since despite the India-Pakistan deadlock in talks, both New Delhi and Islamabad have been able to form a consensus on the issue.

Background:

- Guru Nanak Dev Jayanti is observed on the full-moon day in the month of Katak to celebrate the birth of Guru Nanak Dev (1469-1539), who is the first of the 10 Sikh Gurus and the founder of Sikhism.
- He advocated the 'Nirguna' form of bhakti.
- He rejected sacrifices, ritual baths, image worship, austerities and the scriptures of both Hindus and Muslims.
- He organised his followers into a community. He set up rules for congregational worship (sangat) involving collective recitation.

He appointed one of his disciples, Angad, to succeed him as the preceptor (guru), and this practice was followed for nearly 200 years.

The fifth preceptor, Guru Arjan, compiled Baba Guru Nanak's hymns along with those of his four successors and other religious poets like Baba Farid, Ravidas (also known as Raidas) and Kabir in the Adi Granth Sahib.

These hymns, called 'Gurbani', are composed in many languages.

In the late seventeenth century the tenth preceptor, Guru Gobind Singh, included the compositions of the ninth guru, Guru Tegh Bahadur, and this scripture was called the Guru Granth Sahib.

Guru Gobind Singh also laid the foundation of the Khalsa Panth (army of the pure) and defined its five symbols: uncut hair, a dagger, a pair of shorts, a comb and a steel bangle. Under him, the community got consolidated as a socio-religious and military force.

INDIA'S WILDLIFE CRIME CONTROL BUREAU WINS UN ENVIRONMENT AWARD

Why in News : The United Nations Environment has awarded India's Wildlife Crime Control Bureau (WCCB) with the Asia Environment Enforcement Award, 2018 for the excellent work done by the Bureau in combating transboundary environmental crime.

The Asia Environmental Enforcement Award recognises the excellent work done by government officials and teams from the bureau who are diligently involved in combating transboundary environmental crime.

Important Points:

The Asia Environment Enforcement Awards publicly recognise and celebrate excellence in enforcement by government officials and institutions and teams combating transboundary environmental crime in Asia.

- The awards are given to outstanding individuals or government organisations and teams that demonstrate excellence and leadership in enforcement of national laws to combat transboundary environmental crime in one of the following eligibility criteria areas: collaboration, impact, innovation, integrity and gender leadership.
- India's Wildlife Crime Control Bureau has been conferred the award in the Innovation category.
- The bureau has adopted innovative enforcement techniques that have dramatically increased enforcement of transboundary environmental crimes in India.
- It has developed an online Wildlife Crime Database Management System to get real-time data in order to help analyse trends in crime and devise effective measures to prevent and detect wildlife crimes across India.
- This system has been successfully used to analyse trends and for successfully carrying out operations such as:
 - Operation SAVE KURMA: species specific operation on turtles
 - THUNDERBIRD: it is code-name for INTERPOL's multi-national and multi-species enforcement operation
 - WILDNET: to curb illegal trade of wild animals and parts through online platforms
 - LESKNOW: to check illegal trade of lesser-known species of animals

Wildlife Crime Control Bureau:

The Wildlife Crime Control Bureau is a statutory multi-disciplinary body established by the Government of India under the Ministry of Environment and Forests in June 2007, to combat organised wildlife crime in the country.

- The Bureau has its headquarters in New Delhi and five regional offices at Delhi, Kolkata, Mumbai, Chennai and Jabalpur.

- Under Section 38 (Z) of the Wild Life (Protection) Act, 1972, the WCCB is mandated to collect and collate intelligence related to organised wildlife crime activities and to disseminate the same to state and other enforcement agencies for immediate action so as to apprehend the criminals.

The bureau is also mandated to establish a centralised wildlife crime data bank, assist foreign authorities and international organisations concerned to facilitate co-ordination and universal action for wildlife crime control and help in the capacity building of the wildlife crime enforcement agencies for scientific and professional investigation into wildlife crimes and assist State Governments to ensure success in prosecutions related to wildlife crimes.

The bureau can also advise the Government of India on issues relating to wildlife crimes having national and international ramifications, relevant policy and laws.

It also assists and advises the Customs authorities in inspection of the consignments of flora and fauna as per the provisions of Wild Life Protection Act, CITES and EXIM Policy governing such an item.

Background:

This system has been successfully used to analyse trends, helping put in preventive measures as well as for successfully carrying out operations such as Operation SAVE KURMA, THUNDERBIRD, WILDNET, LESKNOW, BIRBIL, THUNDERSTORM, LESKNOW-II along with other enforcement agencies resulting in the arrest of 350 wildlife criminals and huge seizures of Tiger/Leopard Skin/bones and other trophies, Rhino Horn, Elephant Ivory, turtles/tortoises, Mongoose raw hairs as well as Mongoose hair brushes, protected birds, Marine products, live Pangolin as well as its scales, deer antlers etc. across all the states.

WORLD BOXING CHAMPIONSHIP

Why in News : Mary Kom created history on November 24, 2018 by winning her sixth world championship gold at the 10th World Women's Boxing Championships, held in New Delhi, India. Mary Kom won the sole gold for India by beating Ukraine's Hanna Okhota in a unanimous 5-0 verdict in the 48kg category summit bout. Overall, India ended the championships with 1 gold, 1 silver and 2 bronze.

Important Points:

- The Indian Olympic boxer from Manipur is the only woman to become World Amateur Boxing champion for a record six times.
- She is also the only woman boxer to have won a medal in each one of the seven world championships. She once won silver.
- Nicknamed Magnificent Mary, she is the only Indian woman boxer to have qualified for the 2012 Summer Olympics, competing in the flyweight (51 kg) category and winning the bronze medal.
- She was ranked at the top in AIBA World Women's Ranking Light Flyweight category.
- She also became the first Indian woman boxer to win a gold medal at the 2014 Asian Games, held Incheon, South Korea.
- She is also the first Indian woman boxer to win gold at the 2018 Commonwealth Games, held in Gold Coast, Australia.
- In April 2016, Kom was nominated by the Indian President as a member of the Rajya Sabha, the upper house of the Indian Parliament.
- In March 2017, the Ministry of Youth Affairs and Sports appointed Mary Kom along with Akhil Kumar as national observers for boxing. Mary, who went over her weight category to clinch a 51kg bronze at the London Olympics, previously clinched the World Championship gold on five occasions — 2002, 2005, 2006, 2008, 2010 — besides bagging a silver on her debut in 2001.

- The 35-year-old mother of three was awarded the Padma Bhushan in 2013. She is also the recipient of the Padma Shri (2006), Arjuna Award (2003), the Rajiv Gandhi Khel Ratna award (2009) and several other such top honours and recognitions.

Conclusion:

Post her historic world championship win, Manipur Chief Minister N Biren Singh announced that the state government will honour Mary Kom by conferring an appropriate title in recognition to her unprecedented feat of winning the sixth gold medal in the World Boxing Championship and her illustrious career in the field.

The title would soon be announced in a grand reception ceremony for the boxing ace, to be organised after her arrival in the state.

GREENHOUSE GAS LEVELS IN ATMOSPHERE REACH NEW RECORD : UN REPORT

Why in News : Levels of heat-trapping greenhouse gases in the atmosphere have reached another new record high, according to the United Nations weather agency, World Meteorological Organization (WMO).

Important Points:

- In its annual greenhouse gas bulletin, WMO reveals that there is no sign of a reversal of the upward trend, responsible for climate change, sea level rise, ocean acidification and extreme weather.
- It can be noted that report talks about concentrations and not emissions. The concentrations differ from emissions in that they represent what remains in the atmosphere after some of the gases are absorbed by the seas, land and trees. Since 1990 the warming impact of these long lived gases on the climate has increased by 41%.
- Atmospheric CO₂ reached 146% of the pre-industrial level in 2017, primarily because of emissions from combustion of fossil fuels and cement production, deforestation and other land-use change. Levels of other key greenhouse gases methane and nitrous oxide in the atmosphere also rose.

- The increase in CO₂ concentration from 2016 to 2017 was smaller than the rise from 2015 to 2016 because of the impact of El Niño, which peaked in 2015 and 2016. This triggered droughts in some parts of the world, which in turn reduced the ability of forests and vegetation in these areas to soak up CO₂, hence more of it stayed in the atmosphere.

About El Nino:

- El Niño means The Little Boy, or Christ Child in Spanish. It is a periodic climate event that causes waters to warm up in east-central Pacific Ocean, which in turn causes huge changes in wind directions bringing less rain to Southeast Asia and the Indian subcontinent, while increasing rain in other parts of the world.
- There is also an opposite of an El Niño, called La Niña means The Little Girl in Spanish. This refers to times when waters of the tropical eastern Pacific are colder than normal and trade winds blow more strongly than usual.
- Collectively, El Niño and La Niña are parts of an oscillation in the ocean-atmosphere system called the El Niño-Southern Oscillation, or ENSO cycle.

About Greenhouse Gas:

Carbon dioxide:

Carbon dioxide is the main long-lived greenhouse gas in the atmosphere. Concentrations reached 405.5 ppm in 2017, 146% of the pre-industrial era (before 1750). The increase in CO₂ from 2016 to 2017 was about the same as the average growth rate over the last decade. It was smaller than the record leap observed from 2015 to 2016 under the influence of a strong El Niño event, which triggered droughts in tropical regions and reduced the capacity of “sinks” like forests and vegetation to absorb CO₂. There was no El Niño in 2017.

Methane:

Methane (CH₄) is the second most important long-lived greenhouse gas and contributes about 17% of radiative forcing. Approximately 40% of methane is emitted into the atmosphere by natural sources (e.g., wetlands and termites), and about 60% comes from human activities like cattle breeding, rice agriculture, fossil fuel exploitation, landfills and biomass burning.

Atmospheric methane reached a new high of about 1859 parts per billion (ppb) in 2017 and is now 257% of the pre-industrial level. Its rate of increase was about equal that observed over the past decade.

Nitrous Oxide:

Nitrous oxide (N₂O) is emitted into the atmosphere from both natural (about 60%) and anthropogenic sources (approximately 40%), including oceans, soil, biomass burning, fertilizer use, and various industrial processes.

Its atmospheric concentration in 2017 was 329.9 parts per billion. This is 122% of pre-industrial levels. It also plays an important role in the destruction of the stratospheric ozone layer which protects us from the harmful ultraviolet rays of the sun. It accounts for about 6% of radiative forcing by long-lived greenhouse gases.

CFC-11:

The Bulletin has a special section devoted to CFC-11 (trichlorofluoromethane). This is a potent greenhouse gas and a stratospheric ozone depleting substance regulated under the Montreal Protocol. Since 2012 its rate of decline has slowed to roughly two thirds of its rate of decline during the preceding decade. The most likely cause of this slowing is increased emissions associated with production of CFC-11 in eastern Asia.

This discovery illustrates the importance of long-term measurements of atmospheric composition, such as are carried out by the Global Atmosphere Watch Programme, in providing observation-based information to support national emissions inventories and to support agreements to address anthropogenic climate change, as well as for the recovery of the stratospheric ozone layer.

About World Meteorological Organization (WMO):

WMO is an intergovernmental organization and specialised agency of the UN for meteorology (weather and climate), operational hydrology and related geophysical sciences. It is a member of the United Nations Development Group.

- Established: It had originated from the International Meteorological Organization (IMO), which was founded in 1873.
- Membership: 191 Member States and Territories.
- Headquarters: Geneva, Switzerland.

Conclusion:

- This report by WMO needs to be seen alongside the recent IPCC 1.5C report which warned that the world needed to be essentially carbon neutral by 2050.
- The WMO bulletin comes out before climate negotiators begin at the Conference of Parties (COP24) meeting in Katowice, Poland, where countries will discuss putting the Paris climate agreement into practice and increasing their ambitions when it comes to cutting warming gases.

INDIA TO STUDY MARIJUANA-DERIVED DRUGS

Why in News : Three major science administrators in India — The Council of Scientific and Industrial Research (CSIR), the Indian Council for Medical Research (ICMR) and the Department of Biotechnology — are getting together to promote research in herbal drugs, some of which involve deriving new drugs from marijuana.

Important Points:

- The studies into the therapeutic potential of marijuana is part of a governmental thrust to produce new drugs derived from herbs and plants that find mention in Ayurvedic and other traditional medicine knowledge systems.
- Scientists are preparing for India's first human clinical trials to test cannabis-based compounds on select diseases.
- Researchers will test whether strains of marijuana could be effective in the treatment of breast cancer, sickle-cell anaemia as well as for "bioequivalent" (similar in make-up and effect) to marijuana-derived drugs already approved by the United States Food and Drug Administration (U.S. FDA).
- India's move towards clinical trials of cannabis derivatives comes amid growing evidence of the safety and efficacy of medicinal cannabis in the treatment of cancer, multiple sclerosis and a rare but severe form of epilepsy.

About Marijuana or Hemp:

- Marijuana is greenish-gray mixture of dried, shredded leaves, stems, seeds and flowers of *Cannabis sativa* – the hemp plant. Most people smoke marijuana, though it can also be used in other forms such as edibles, powders and oils.
- It is used for controlling pain for medical issues, like cancer, nervous system diseases, glaucoma, migraines, etc and also used to treat nausea and improve appetites for people with HIV or other chronic illnesses.

Cannabis is banned in most countries but number of countries have started decriminalising its use in recent years. It is legal for medicinal purposes in 14 European countries, Argentina, Israel, Puerto Rico, Mexico, Panama, Turkey, Zambia and Zimbabwe. In the US, its medicinal use is allowed in 29 states and nine states have legalised both medical and personal use. Spain, Netherlands, Slovenia, Portugal, Jamaica, Peru, Chile, Colombia, Ecuador and Luxembourg are among countries that have relaxed legislation regarding personal use of Cannabis.

Prohibiting and making it illegal has not prevented the availability of marijuana in the market nor its use by people.

The potential risks that cannabis poses illustrate why it is necessary to legally regulate this drug. Rather than leaving the trade of cannabis in the hands of an unregulated criminal market, the drug should be safely produced by competent farmers, packaged and tested in suitable facilities, and sold by reputable and licensed vendors.

- **Regulation allows cannabis buyers to know what they are consuming and moderate their intake in accordance with the THC level in the marketed marijuana.**

Imposing tax on cannabis sales can create revenue for the state. Tax collected could be spent on educating people about the risks of cannabis use, like public service information on alcohol and tobacco.

About Council of Scientific & Industrial Research (CSIR):

CSIR is government's autonomous research agency, established in 1942.

Presently, CSIR has over 4,500 scientists working across 38 laboratories and employs over 9000 scientific and technical personnel.

- The research bodies under CSIR cover science and technology focus areas ranging from aeronautics, instrumentation, mining, environmental engineering and to oceanography, geophysics, chemicals, drugs, genomics and biotechnology.

Indian Council of Medical Research (ICMR):

ICMR is India's apex scientific body for the formulation, coordination and promotion of biomedical research. It was established in 1911 as Indian Research Fund Association (IRFA) making it one of oldest and largest medical research bodies in the world.

The ICMR functions under Department of Health Research, Ministry of Health and Family Welfare. It is headquartered in New Delhi. Its Governing Body is presided over by Health Minister. It is assisted in scientific and technical matters by Scientific Advisory Board comprising eminent experts in different biomedical disciplines.

ICMR's research priorities coincide with national health priorities such as control and management of communicable diseases, fertility control, maternal and child health, control of nutritional disorders, research on major non-communicable diseases like cancer, cardiovascular diseases, diabetes and mental health research and drug research (including traditional remedies) and developing alternative strategies for health care delivery.

INTERNATIONAL DAY FOR THE ELIMINATION OF VIOLENCE AGAINST WOMEN (IDEVAW)

Why in News :International Day for the Elimination of Violence against Women (IDEVAW) is observed every year across the world on 25 November. Observance of this day seeks to raise awareness about violence against women and girls, end violence against women. It also seeks to show that prevention is possible against violence of women.

The UN theme for this year's 16 Days of Activism against Gender-Based Violence (25 November – 10 December) under the UNiTE to End Violence against Women campaign is "Orange the World: #HearMeToo". It aims to reinforce UNiTE Campaign's commitment to create world free from violence for all women and girls and reaching out to most marginalized people including migrants, refugees, indigenous peoples, minorities and populations affected by natural disasters and conflicts.

Violence against women- definition:

The Declaration on the Elimination of Violence Against Women issued by the UN General Assembly in 1993, defines violence against women as "any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life."

Why we must eliminate violence against women?

Violence against women and girls (VAWG) is one of the most widespread, persistent and devastating human rights violations in our world today, remains largely unreported due to the impunity, silence, stigma and shame surrounding it.

In general terms, it manifests itself in physical, sexual and psychological forms, encompassing:

- Intimate partner violence (battering, psychological abuse, marital rape, femicide).
- Sexual violence and harassment (rape, forced sexual acts, unwanted sexual advances, child sexual abuse, forced marriage, street harassment, stalking, cyber-harassment).
- Human trafficking (slavery, sexual exploitation).
- Female genital mutilation.
- Child marriage.

Important Points:

- Violence against women is as serious a cause of death and incapacity among women of reproductive age as cancer, and a greater cause of ill health than traffic accidents and malaria combined.

1 in 3 women and girls experience physical or sexual violence in their lifetime, most frequently by an intimate partner.

- Only 52% of women married or in a union freely make their own decisions about sexual relations, contraceptive use and health care. Worldwide, almost 750 million women and girls alive today were married before their 18th birthday; while 200 million women and girls have undergone female genital mutilation (FGM).
- 1 in 2 women killed worldwide were killed by their partners or family in 2012; while only 1 out of 20 men were killed under similar circumstances.
- 71% of all human trafficking victims worldwide are women and girls, and 3 out of 4 of these women and girls are sexually exploited.

Background:

- International Day for the Elimination of Violence against Women was instituted by United Nations General Assembly (UNGA) in December 1999.
- This day is commemorated in memory of Mirabal sisters who were three political activists from Dominican Republic. They were brutally assassinated during the Rafael Trujillo dictatorship (1930-1961) in 1960.

UTTARAKHAND GETS HYPER CONVERGED DATA CENTRE

Why in News : Uttarakhand Chief Minister Trivendra Singh Rawat inaugurated the country's first Hyper Converged Infrastructure State Data Centre in Dehradun. It is a 3-tier State Data Centre, developed by the Information Technology Development Agency (ITDA) of the Uttarakhand government.

Important Points:

- It is the first data centre in the country with cent percent software-based Hyper Converged Infrastructure (HCI) technology. It has 105-terabyte form, which can be expanded up to 12 petabyte. It has all citizen centric services.
- In a programme organised at ITDA situated at IT Park, Sahasthradhara Road, Chief Minister Trivendra Rawat said, "We have to develop such a system that the government work is completed in a fixed time frame. This will also remove the shortcomings of our system. Efforts are being made that a certain part of every department's budget is being spent on IT and technical development."

The data centre will provide all types of safe, reliable, efficient and all-time available digital services to the different departments of the State Government. The new centre will play key role in spreading the Prime Minister's Digital India movement in Uttarakhand.

The ITDA informed that Uttarakhand State Data Centre is a one-level (3-tier) structure. It is developed on the latest technology on Hyper Converged Infrastructure (HCI). It has been developed on Green Concept to reduce the use of electricity and increase the efficiency.

All citizen-centric services will be accessible through this State Data Centre. The time and money being spent on the basic building infrastructure will be saved. It will also reduce burden on the public exchequer.

It will help in integrating the online database of different government departments at one place. Government departments will be able to provide the benefits of citizen services more easily among the public. This is a common data centre for different departments through which the departments can fulfil their IT requirements on the general private cloud.

- Modern biometric systems and 24x7 CCTV surveillance make State Data Centre even more secure and reliable.

26 NOVEMBER: INDIAN CONSTITUTION DAY

Why in News : The 69th Constitution Day was observed across India on November 26, 2018 to mark the adoption of the Indian Constitution by the Constituent Assembly. The Constitution of India was adopted by the Constituent Assembly on November 26, 1949 and it came into force on January 26, 1950.

Important Points:

On November 19, 2015 during the year-long celebration of the 125th birth anniversary of Dr BR Ambedkar, the Union Government declared November 26 as the Constitution Day in a gazette notification.

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Following the independence of India, the Constituent Assembly entrusted the job of drafting the Indian Constitution to the Drafting Committee chaired by Dr BR Ambedkar.

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In the beginning of 1948, Dr. Ambedkar completed the draft of the Constitution and presented it in the Constituent Assembly. In November 26, 1949, this draft was adopted with very few amendments.

About Indian Constitution:

Indian Constitution is supreme law of India, which lays down framework that defines political principles, establishes structure, procedures, powers and duties of Government institution. It is core legal document which has nearly 448 articles or provisions in 25 parts, 12 schedules.

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It is living fundamental document which makes the government system work effectively. It lists out fundamental rights of citizens, duties, role of the government, powers of prime minister, president, governor and chief minister, interaction between the government and its citizens and defines how the federal structure of the country will be maintained.

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It also defines the powers of the legislature, the executive and the judiciary. The key feature of the Constitution is separation of powers while keeping a check on each arm of the government. Indian Constitution is the longest written constitution of any sovereign country in the world.

- It signifies the sovereignty of the people. Its drafters had borrowed concepts and ideas from the Constitutions of UK, US, Germany, Ireland, Australia, Canada and Japan. Dr BR Ambedkar is regarded as the father of the Indian Constitution.
- The Constitution declares India a sovereign, socialist, secular, democratic republic, assuring its citizens justice, equality and liberty, and endeavours to promote fraternity.

A Constitution, which may be written or oral, is a set of fundamental principles according to which a state or a country is governed.

It is a document that lays down the framework demarcating fundamental political code, structure, procedures, powers, and duties of government institutions and sets out fundamental rights, directive principles, and the duties of citizens.

INDIA AND CHINA SIGN PROTOCOL TO DOUBLE TAXATION AVOIDANCE AGREEMENT

Why in News : India and China have signed protocol to amend Double Taxation Avoidance Agreement (DTAA) for the avoidance of double taxation and for prevention of fiscal evasion with respect to taxes on income by allowing exchange of information. Under Section 90 of Income-tax Act, 1961, India can enter into agreement with foreign country or specified territory for the avoidance of double taxation of income, for exchange of information for the prevention of evasion.

Important Points:

The Protocol to amend DTAA with China updates existing provisions for exchange of information to latest international standards.

- It incorporates changes required to implement treaty related minimum standards under the Action reports of Base Erosion & Profit Shifting (BEPS) Project.

Besides minimum standards, it also brings in changes as per BEPS Action reports as agreed upon by the two sides. It will help prevent tax evasion by allowing the exchange of information.

- Under Section 90 of the Income-tax Act, 1961, India can enter into an agreement with a foreign country or specified territory for avoidance of double taxation of income, for exchange of information for the prevention of evasion.

About Double Tax Avoidance Agreements (DTAAs):

- A DTAA is a tax treaty signed between two or more countries. Its key objective is that tax-payers in these countries can avoid being taxed twice for the same income.
- A DTAA applies in cases where a taxpayer resides in one country and earns income in another.
- DTAAs can either be comprehensive to cover all sources of income or be limited to certain areas such as taxing of income from shipping, air transport, inheritance, etc.
- DTAAs are intended to make a country an attractive investment destination by providing relief on dual taxation. Such relief is provided by exempting income earned abroad from tax in the resident country or providing credit to the extent taxes have already been paid abroad.
- DTAAs also provide for concessional rates of tax in some cases.
- However, DTAAs can become an incentive for even legitimate investors to route investments through low-tax regimes to sidestep taxation. This leads to loss of tax revenue for the country.

About Base Erosion and Profit Shifting (BEPS):

- BEPS is a term used to describe tax planning strategies that exploit mismatches and gaps that exist between the tax rules of different jurisdictions.

It is done to minimise the corporation tax that is payable overall, by either making tax profits 'disappear' or shift profits to low tax jurisdictions where there is little or no genuine activity.
- In general BEPS strategies are not illegal; rather they take advantage of different tax rules operating in different jurisdictions.

- BEPS is of major significance for developing countries due to their heavy reliance on corporate income tax, particularly from multinational enterprises (MNEs).
- The BEPS initiative is an OECD initiative, approved by the G20, to identify ways of providing more standardised tax rules globally.

MISSION RAKSHA GYAN SHAKTI

Why in News : The Department of Defence Production has instituted a framework titled 'Mission Raksha GyanShakti' which aims to provide a boost to the Intellectual Property Rights culture in indigenous defense industry. The Directorate General of Quality Assurance (DGQA) has been entrusted with the responsibility of coordinating and implementing the programme.

Important Points:

- It aims to achieve the goal of self-reliance in defense sector to generate Intellectual Property in India and marks a departure from the culture of seeking Transfer of Technology (ToT) from foreign sources.
- The first level of IPs will be filed with the Controller of Indian Patents which would then take them up at the global level.
- India has accumulated several technologies gained through Transfer of technology (ToT) agreements but for any design adjustments in the platforms, the original manufacturer has to be consulted.
- Design or IP accounts for over 50% of the cost. In some cases it is 70-80%. Indigenisation can result in cost savings of about 50-70%.
- During the event, salient inventions and innovations achieved by Defence Research and Development Organisation (DRDO), Defence Public Sector Undertakings (DPSUs) and Ordnance Factories (OFs) that have resulted in successful filing of Intellectual Property Right (IPR) applications were showcased.
- On the occasion, the Defence Minister also felicitated some of the scientists, who invented and innovated useful products for the nation. A panel discussion was held with participation of Chairman and Managing Directors of all DPSUs to formulate a strategy for the future in this regard.

- The Minister also highlighted that while India has always been a knowledge hub since ancient times, but due to lack of awareness on modern legal framework for protection of IP rights, the nation's knowledge and creativity have often not been utilised to its full potential.
- The school bag of students of classes VI and VII should not be more than 4 kg, while weight of school bags of classes VIII and IX students should not be above 4.5 kg. The school bag of a class X student should not weigh above 5 kg.

Background:

The Intellectual Property Right has emerged as a key ingredient of an ecosystem which stimulates innovation and ingenuity. An IP Facilitation Cell was established in April 2018, which has worked tirelessly to achieve ambitious targets of training 10,000 personnel of OFB and DPSUs on IPR and facilitate filing of at least 1,000 new IPR applications.

NO HOMEWORK FOR STUDENTS OF CLASSES I AND II: HRD MINISTRY

- Why in News : State and Union Territories have been instructed to formulate guidelines and regulate the teaching of subjects as well as the weight of school bags.

Important Points:

- According to the official order, the HRD ministry has "instructed all the states and Union Territories to formulate guidelines to regulate the teaching of subjects and weight of school bags in accordance with the Government of India instructions".
- As per these instructions, which the schools have been asked to comply with, institutions cannot assign homework to students of classes I and II. Schools should not prescribe any other subjects except language and mathematics for classes I and II and language, EVS and mathematics for classes III to V students as prescribed by the NCERT..
- **Students should not be asked to bring additional books, extra materials and the weight of a school bag should not exceed the prescribed limit, the order added.**
The weight of school bags for students of classes I and II should not exceed 1.5 kg, while the school bag of students of class III to V should weigh between 2 kg to 3 kg.

CHINA ORDERS INQUIRY INTO 'WORLD'S FIRST GENE-EDITED BABIES'

Why in News : A scientist in China claims to have produced the world's first genome-edited babies by altering their DNA to increase their resistance to HIV. Aside from the lack of verifiable evidence for this non peer-reviewed claim, this research is premature, dangerous and irresponsible.

Jiankui from the Southern University of Science and Technology in Shenzhen (which has reportedly since suspended him) said he edited the DNA of seven embryos being used for fertility treatment, so far resulting in the birth of one set of twin girls. He used the tool known as CRISPR to delete the embryos' CCR5 gene (C-C motif chemokine receptor 5), mutations in which are linked to resistance to HIV infection.

What is a Gene?

Genes are made up of DNA (Deoxyribonucleic acid). Genes contain the bio-information that defines any individual. Physical attributes like height, skin or hair colour, more subtle features like intelligence or eyesight, susceptibility to certain diseases, and even behavioural traits can be attributed to information encoded in the genetic material. An ability to alter this information gives scientists the power to control some of these features in humans.

Gene editing is also called as genetic modification, genetic manipulation or genetic engineering. Genome editing is a group of technologies that give scientists the ability to change an organism's DNA. These technologies allow genetic material to be added, removed, or altered at particular locations in the genome. Gene Editing is widely practised in agriculture, to increase productivity or resistance to diseases, etc.

Important Points:

- This technology also raises serious ethical questions like designer babies and changing genes without the informed consent of future generation
- CRISPR is extremely precise, but not 100% precise every time. So, it can have unintended outcomes with effects unknown.
- The most promising use of the CRISPR technology is in treatment of wide variety of diseases, including single-gene disorders such as cystic fibrosis, hemophilia, and sickle cell disease.
- It also holds promise for the treatment and prevention of more complex diseases, such as cancer, heart disease, mental illness, and human immunodeficiency virus (HIV) infection.
- Leading scientists in the field have for long been calling for a "global pause" on clinical applications of the technology in human beings, till such time as internationally accepted protocols are developed.

What is CRISPR?

Using CRISPR system, scientists can remove, add or alter specific DNA sequences in the genome of higher organisms. CRISPR-Cas9 technology behaves like a cut-and-paste mechanism on DNA strands that contain genetic information. The specific location of the genetic codes that need to be changed, or edited, is identified on the DNA strand, and then, using the Cas9 protein, which acts like a pair of scissors, that location is cut off from the strand.

It has two components, a single-guide RNA (sgRNA) that contains a sequence that can bind to DNA, and Cas9 enzyme which acts as a molecular scissor that can cut specific DNA sequence.

Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) is a gene editing technology, which replicates natural defence mechanism in bacteria to fight virus attacks, using a special protein called Cas9.

A DNA strand, when broken, has a natural tendency to repair itself. Scientists intervene during this auto-repair process, supplying the desired sequence of genetic codes that binds itself with the broken DNA strand.

- CRISPR-Cas9 is a simple, effective, and incredibly precise technology with potential to revolutionise human existence in future.

ISRO SUCCESSFULLY LAUNCHES HYSIS SATELLITE

Why in News : The Indian Space Research Organisation (ISRO) on November 29, 2018 successfully launched a hyperspectral imaging satellite (HySIS), an earth observation satellite along with 30 foreign commercial satellites from Sriharikota launch centre in Andhra Pradesh.

The satellites were launched through Polar Satellite Launch Vehicle (PSLV-C43) from the first launch pad of the Satish Dhawan Space Centre in Sriharikota. This was the 45th launch flight of the polar satellite launch vehicle (PSLV) rocket.

Important Points:

The foreign satellites launched along with HySIS include 1 Micro and 29 Nano satellites from 8 different countries.

All these satellites were placed in a 504 km orbit by PSLV-C43. Out of the 30 commercial satellites, 23 are from the United States.

These satellites have been commercially contracted for launch through Antrix Corporation Limited, the commercial arm of ISRO.

PSLV is a four stage launch vehicle with alternating solid and liquid stages. PSLV-C43 is the Core Alone version of PSLV which is the lightest version of PSLV.

HySIS is an earth observation satellite developed by ISRO. It is the primary satellite of the PSLV-C43 mission. The mass of the satellite is about 380 kg.

The satellite was placed in 636 km polar sun synchronous orbit with an inclination of 97.957 deg. The mission life of the satellite is expected to be 5 years.

Significance:

- This is the first time that a full-fledged hyperspectral imaging satellite has been launched. The hypspx technology is still an evolving science and has become a new global trend.
- Hyperspectral imaging combines the power of digital imaging and spectroscopy. It collects and processes information from across the electromagnetic spectrum.

HySIS Mission:

- The primary goal of HysIS is to study the Earth's surface in visible, near-infrared and shortwave infrared regions of the electromagnetic spectrum.
- Hyperspectral imaging satellite can see in 55 spectral or colour bands from 630 km above ground.
- 'Hypspx' imaging allows distinct identification of objects, materials or processes on Earth by reading the spectrum for each pixel of a scene from space.
- It can be highly useful in marking out a suspect object or person and separate it from the background. This could aid in detecting transborder or other stealthy movements.
- It can be used for a range of activities from monitoring the atmospheric activity and climate change, studies of Earth's magnetic field, agriculture, forestry, water management, coastal patterns, looking for oil and minerals all the way up to military surveillance.

PSLV:

PSLV is the third generation launch vehicle of India, designed and developed by ISRO's Vikram Sarabhai Space Centre, Thiruvananthapuram. It is hailed as the reliable and versatile workhorse launch vehicle of India. It consists of four stages, using solid and liquid propulsion systems alternately. Each stage of PSLV is self-contained vehicle capable of functioning independently with own propulsion systems.

It is capable of launching 1600 kg satellites in 620 km sun-synchronous polar orbit and 1050 kg satellite in geosynchronous transfer orbit. There are three variants of PSLV, namely, PSLV-G, PSLV-CA, PSLV-XL. In the standard configuration, it measures 44.4 m tall, with a lift off weight of 295 tonnes.

- Some notable payloads launched by PSLV include India's first lunar probe Chandrayaan-1, India's first interplanetary mission, Mars Orbiter Mission (Mangalyaan) and India's first space observatory, Astrosat.

Indian Space Research Organisation (ISRO):

The Indian Space Research Organisation (ISRO) is the space agency of the Government of India headquartered in the city of Bangalore. Its vision is to "harness space technology for national development while pursuing space science research and planetary exploration."

Formed in 1969, ISRO superseded the erstwhile Indian National Committee for Space Research (INCOSPAR) established in 1962 by the efforts of independent India's first Prime Minister, Jawaharlal Nehru, and his close aide and scientist Vikram Sarabhai. The establishment of ISRO thus institutionalized space activities in India. It is managed by the Department of Space, which reports to the Prime Minister of India.

RBI EASES HEDGING NORMS FOR OVERSEAS BORROWINGS TO 70% FROM CURRENT 100%

Why in News : The Reserve Bank relaxed norms for external commercial borrowings (ECBs) by reducing the mandatory hedging provision to 70% from the current 100%. The cost of hedging has gone up in the last six months with the strengthening of the dollar. As a result, the ECB route was becoming unattractive to firms.

Important Points:

The move will help bring down the final cost of overseas loans for Indian firms but could leave them more exposed to volatility in the foreign exchange markets. The relaxed norms will apply to the ECBs with a maturity period between 3 and 5 years.

- The push to increase hedging began after the global financial crisis, where unhedged foreign currency exposures led to significant losses for some firms.
- Following that experience, the RBI mandated 100% hedging for medium-term external borrowings. It also asked banks to set aside additional provisions against companies which had unhedged foreign currency exposure.

About Hedging:

- 'Hedging' refers to an investment process required to reduce the risk of adverse price or currency movements.
- A borrower has to hedge in a manner that the projected cash flows match the expectation of the borrowers, irrespective of the fluctuations in the foreign currency.
- The RBI also clarified that the ECBs raised prior to this circular will be required to mandatorily roll over their existing hedge only to the extent of 70 percent of outstanding ECB exposure.
- The relaxed norms will apply to the ECBs with a maturity period between three and five years.
- The relaxation in hedging is for Indian companies raising foreign currency-denominated ECBs under Track I of the ECB framework. The Track I refer to medium-term foreign currency-denominated ECB with a minimum average maturity of 3 to 5 years.

The easing of hedging norms comes at a time when the economy faces liquidity issues, particularly among the Non-Banking Financial Companies (NBFC).

For the same purpose, the RBI had earlier eased hedging rules by reducing the minimum tenure for borrowing through the ECB route to three years from five years. It had also reduced the tenure required for exemption from mandatory hedging to five years from 10 years.

- The move is likely to boost the local credit market.
- It will increase the exposure of Indian companies borrowing abroad to fluctuations in the foreign exchange market.
- The move will also help in improving dollar inflows into the economy at a time when some foreign currency deposits are likely to mature.

External Commercial Borrowings:

External Commercial Borrowings is a loan availed by an Indian entity from a nonresident lender with a minimum average maturity of 3 years.

Most of these loans are provided by foreign commercial banks buyers' credit, suppliers' credit, securitized instruments such as Floating Rate Notes and Fixed Rate Bonds etc.

Advantages of ECBs:

ECBs provide opportunity to borrow large volume of funds.

The funds are available for relatively long term.

Interest rate are also lower compared to domestic funds.

ECBs are in the form of foreign currencies. Hence, they enable the corporate to have foreign currency to meet the import of machineries etc.

Corporate can raise ECBs from internationally recognized sources such as banks, export credit agencies, international capital markets etc.

MAHARASHTRA ASSEMBLY APPROVES 16% QUOTA FOR MARATHAS

Why in News : The Maharashtra Assembly has unanimously passed a Bill proposing 16% reservation for Maratha community. The bill provides for reservation of seats for admission in educational institutions and posts in public services under Article 15(4), 16 (4) of the Constitution of India.

Maratha community has been granted reservation under an independent category Socially and Educationally Backward Class (SEBC). The approval of the Bill has increased the reservation in Maharashtra from the current 52% to 68%, thus crossing the 50% ceiling set by Supreme Court in Indra Sawhney Case (1992).

The Constitution of India:

Article 15(4) : Nothing in this article or in clause shall prevent the State from making any special provision for

the advancement of any socially and educationally backward classes of citizens or for the Scheduled Castes and the Scheduled Tribes.

Article 16(4) : Nothing in this article shall prevent the State from making any provision for the reservation of appointments or posts in favor of any backward class of citizens which, in the opinion of the State, is not adequately represented in the services under the State.

- Marathas are the Marathi-speaking, politically dominant community in Maharashtra. They make up about one-third of the population of the state.
- Historically, they have been identified as a warrior class with large land-holdings.
- Division of land and agrarian problems over the years have led to a decline of prosperity among middle-class and lower-middle-class within Maratha Community.
- Maratha community is a predominantly agrarian community which have been hit by the rural distress, especially the crisis in agriculture, and their efforts to seek education and alternative employment has been hampered by locational disadvantages.
- Inability of the state governments to provide enough jobs is another factor for dissatisfaction.
- The Maharashtra State Backward Class Commission (MSBCC) submitted a report after studying 45,000 families from two villages from each of the 355 talukas that have more than a 50% Maratha population.

- According to the panel report, Marathas have been declared as socially and educationally backward class of citizens and have inadequate representation in the services under state.
- Reservation in Maharashtra is already beyond the Supreme Court imposed limit of 50%. After 16% is reservation is given to Marathas, the total would become 68%. Hence, whether this proposal can withstand judicial scrutiny and become policy remains to be seen.

However, there is no provision in the Constitution imposing ceiling on reservation. But it has provision that reservation should be given under exceptional and extraordinary cases.

Marathas don't face any social stigma which hinders their economic development. Hence, there is no reason that calls for giving them affirmative action.

The demand for reservations for Marathas, traditionally seen as "upper castes", goes against the spirit of affirmative action. They also play a central role in states electoral politics.

Background:

Government should look at the bigger solution to the problem as quotas offer only a limited, short-term solution to these problems.

Reservation is an instrument to rectify social and educational backwardness, but it is not a solution for every social and economic ailment. The government should focus on increasing economic growth which might lead to new employment opportunities.

EMERGENCY RESPONSE SUPPORT SYSTEM

Why in News : Himachal Pradesh became the first Indian state to launch a single emergency number '112' which will connect to police, fire, health and other helplines through an Emergency Response Centre (ERC) in the state. The emergency number was launched by Union Home Minister Rajnath Singh under the Emergency Response Support System (ERSS).

Important Points:

- For this purpose, state established an ERC in Shimla along with 12 District Command Centres (DCCs) covering the entire state.
- The ERC has been integrated with police (100), fire (101), health (108) and women helpline (1090) services to provide emergency services via single emergency number 112.
- This single emergency number '112' service is part of the Emergency Response Support System (ERSS) which includes a '112 India' mobile app integrated with panic button of smartphones.
- To ensure safety of women, a 'SHOUT' feature has been introduced in '112 India' mobile app to seek immediate assistance from registered volunteers in the vicinity apart from assistance from ERC. The SHOUT feature is exclusively available for women.
- The mobile app can be downloaded from the Google App store and Apple.
- The '112 India' mobile app will now subsequently be rolled out in all States and Union Territories to help people across the country access the unified emergency services.
- An ERSS state website has also been designed for ease of citizen in availing immediate assistance.
- Anybody in distress, especially women, can call 112 from landline or mobile phone or by using the ERSS. The ERSS would help in optimum utilisation of manpower and prompt action on all the emergency calls.
- In addition to this, problems related to coordination would also be simplified.
- To increase the effectiveness of emergency response, the ERC has been integrated with location-based services provided by telecom service providers.

For the project, the Union Government provided financial assistance of Rs 4.71 crore for the project from the Nirbhaya fund. The Central government has allocated Rs 321.69 crore under Nirbhaya fund to implement the ERSS project across the country.

Emergency Response Support System (ERSS):

- The Justice Verma Committee, in the backdrop of unfortunate Nirbhaya incident in December 2012, suggested for the implementation of the 'Emergency Response Support System' (ERSS) across India.
- This recommendation was accepted by the Union Ministry of Home Affairs (MHA).
- Earlier referred as Nationwide Emergency Response System (NERS), the ERSS was approved with budgetary provision of Rs 321.69 crore with a view to introduce a Pan-India Single Emergency Response Number '112' to address all kinds of distress calls such as police, fire and ambulance etc.

Objectives:

Providing a single emergency response number across the country

Providing 24x7 efficient and effective response system which can receive input from various voice and data services such as voice call, SMS, email, Internet of Things, panic buttons in public transport etc.

Identification of location of person in distress connecting through voice or data

Automated response system for timely dispatch of field resources such as police to the location of incidence using the system

GPS (Global Positioning System) enabled dispatch of vehicles to locate nearest vehicles

Integration with existing Dial 100, Dial 108 and other emergency response systems

- Integrate with other relevant systems like CCTNS etc.
- Provide standardised and easy to use mobile apps, IoT (Internet of Things) enabled applications on a Pan-India basis.

Capital Punishment in India: SC upholds constitutional validity of death penalty; Justice Kurian Joseph dissents

The Supreme Court on November 28, 2018 upheld the constitutional validity of death penalty while awarding life term imprisonment to Chhannu Lal Verma instead of death penalty for murdering three persons including two women.

While delivering the judgment, a three-judge bench comprising Justices Kurian Joseph, Deepak Gupta and Hemant Gupta expressed different opinions with Justice Joseph saying that the provision of capital punishment has failed to become a deterrent and the other two holding its continuance in the rarest of rare cases.

Though the three judges differed on the applicability of death penalty, they were unanimous in commuting or reducing the death sentence of Chhannu Lal Verma.

Unanimous view of judges on commuting death sentence of Chhannu Lal Verma

The three judges were unanimous in their view that the Chhattisgarh High Court has wrongly confirmed death penalty on Chhannu Lal Verma without correctly applying the law laid down in Bachan Singh and other cases. As per the judges, the decision to impose the highest punishment of death sentence in this case does not fulfil the test of rarest of rare case.

They noted that the superintendent of the jail has given a certificate that his conduct in jail has been good during the pendency of his appeal in apex court for past four years. Thus, there was a conscious effort on his part to lead a good life for the remaining period. A convict is sent to jail with the hope and expectation that he would make amends and get reformed. Verma was convicted by a Sessions Court in Chhattisgarh and then by the Chhattisgarh High Court for killing Anand Ram Sahu, his wife Firanteen Bai and raping and murdering their daughter-in-law Ratna Sahu in 2011 and was subsequently awarded a death penalty.



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TRIDEV RATH RANK-154	PRATIK PATNAIK RANK-174	SANGRAM PARIDA RANK-194	SHEETAL AGARWAL RANK-199	GYANI MOHANTY RANK-214	SWETAPADMA DHAL RANK-267	SANJIT SUMAN RANK-326	RAJIV DAS RANK-352	PREETAM KUMAR RATH RANK-364	SAGARIKA SAHU RANK-403	TAPAS DEHURY RANK-406
									And Many More Selections	
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RANK-1

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