

**CURRENT AFFAIRS****1<sup>ST</sup> TO 15<sup>TH</sup> DECEMBER 2018****SURROGACY (REGULATION) BILL, 2016**

**Lok Sabha passed the Surrogacy (Regulation) Bill, 2016.**

*Surrogacy is an arrangement, often supported by a legal agreement, whereby a woman agrees to become pregnant, carry the pregnancy to due term, and give birth to a child or children, all of this for another person or persons, who are or will ultimately become the parent(s) of the newborn child or children.*

**Commercial surrogacy:** The term generally refers to any surrogacy arrangement in which the surrogate mother is compensated for her services beyond reimbursement of medical expenses.

**Altruistic surrogacy:** The term refers to an arrangement in which a woman volunteers to carry a pregnancy for intended parents without receiving any monetary compensation in return.

**AIMS**

- The Bill allows only **altruistic surrogacy (by relatives)** for married couples. It seeks to put an end to commercial surrogacy — payment to a surrogate mother is punishable by up to five years imprisonment — and also has safeguards built in against sex selection of the baby.
- The Bill proposes to allow altruistic, ethical surrogacy to intending infertile Indian married couples between the ages of **23-50 (female) and 26-55 (male)**.
- It limits the option to **only legally married childless couples** who have been trying for a child for at least five years.
- The commissioning couple cannot have a surviving child either biological or adopted, except when they have a child who is mentally or physically challenged or suffers from a life-threatening disorder with no permanent cure.
- The Bill permits surrogacy when it is:
  - a. For intending couples who suffer from proven infertility.
  - b. Altruistic.
  - c. Not for commercial purposes.
  - d. Not for producing children for sale, prostitution or other forms of exploitation.
  - e. For any other condition or disease specified through regulations.

**HIGHLIGHTS**

- According to the bill, only childless couples, legally married for at least five years, are allowed to commission surrogacy, from a woman who is a “close relative” of the couple. Singles or those in a homosexual relationship cannot apply for surrogacy. The child, thus born, will be deemed to be the legal offspring of the intended couple.
- As the bill restricts surrogacy by only a “close relative”, couples who do not have a large “close” family — or members in it who might be willing to be surrogates for them — cannot have a baby through surrogacy. The only available option for them will then be adoption.
- Only a married blood relative, who must have herself borne a child, and is not an NRI or a foreigner, can be a surrogate mother, that too once in a lifetime.
- The bill aims to shut down surrogacy shops, allowing only altruistic surrogacy, meaning that apart from the basic costs incurred in the process of childbirth, no other gratification (in cash or kind) shall be paid to the surrogate mother. It bans commercial surrogacy that allows compensation, exceeding the medical expenses of childbirth, to be paid to the surrogate mother.

- According to the bill, foreign nationals will not be allowed to apply for surrogacy in India, making it exclusively for Indian citizens, in accordance with the provisions.

#### **BENEFITS TO COMMISSIONING MOTHERS**

- It deals with the rights and responsibilities of commissioning parents and surrogate mother vis a vis each other and the baby, but does not address entitlements of a commissioning parent from his or her employer.
- These are covered by labour laws; the law on maternity benefits does not take into account the possibility of a woman becoming a mother without actually giving birth.

#### **BILL ONE CLEARED BY THE CABINET IN 2016 DIFFERENT FROM NEW BILL**

- There are changes, including a reduction of punishment.
- The earlier version provided for a minimum jail term of 10 years for some offences; the present one sets a maximum of 10 years.
- The present Bill forbids the surrogate mother to use her own gametes (eggs), gives her the option to withdraw before the embryo is implanted, and puts a condition for obtaining a “certificate of essentiality” that the intending couple needs —they must provide a 16-month insurance coverage for the surrogate mother including postpartum complications.

#### **ZIKA**

***Two teams have separately reported vaccines they have or may have identified, one of these with the promise of overcoming what has been seen as a possible stumbling block so far. The news, incidentally, came at a time when a Zika outbreak in Rajasthan has led to the United States issuing an alert asking pregnant women not to travel there.***

#### **BACKGROUND**

- Zika virus is a mosquito-borne flavivirus that was first identified in Uganda in 1947 in monkeys. It was later identified in humans in 1952 in Uganda and the United Republic of Tanzania.
- The first recorded outbreak of Zika virus disease was reported from the Island of Yap (Federated States of Micronesia) in 2007. This was followed by a large outbreak of Zika virus infection in French Polynesia in 2013 and other countries and territories in the Pacific. In March 2015, Brazil reported a large outbreak of rash illness, soon identified as Zika virus infection, and in July 2015, found to be associated with Guillain-Barré syndrome.
- In October 2015, Brazil reported an association between Zika virus infection and microcephaly. Outbreaks and evidence of transmission soon appeared throughout the Americas, Africa, and other regions of the world. To date, a total of 86 countries and territories have reported evidence of mosquito-transmitted Zika infection.

#### **FACTS**

- Zika virus disease is caused by a virus transmitted primarily by Aedes mosquitoes, which bite during the day.
- Symptoms are generally mild and include fever, rash, conjunctivitis, muscle and joint pain, malaise or headache. Symptoms typically last for 2–7 days. Most people with Zika virus infection do not develop symptoms.
- Zika virus can be transmitted from mother to fetus during pregnancy, resulting in microcephaly (smaller than normal head size) and other congenital malformations in the infant, collectively referred to as congenital Zika syndrome.

- **Microcephaly** is caused by underlying abnormal brain development or loss of brain tissue. Child outcomes vary according to the extent of the brain damage.
- An increased risk of neurologic complications is associated with Zika virus infection in adults and children, including **Guillain-Barré syndrome, neuropathy and myelitis**.

#### **DAM SAFETY BILL, 2018**

*On June 13, 2018, the Cabinet approved the draft of the Dam Safety Bill, 2018.*

*The Bill provides for “surveillance, inspection, operation and maintenance of specified dams for prevention of dam failure related disasters and to provide for institutional mechanism to ensure their safe functioning”.*

#### **BACKGROUND**

The Dam Safety Bill was first introduced in Lok Sabha in 2010. It sought to mandate the Centre, state governments and individual owners of dams to establish a mechanism for safety. It was to be initially applicable only to **Andhra Pradesh, West Bengal and the Union Territories**; the two states had passed resolutions under **Article 252(1) of the Constitution** requesting Parliament to make a law. The Speaker referred the Bill to a Parliamentary Standing Committee, which submitted its report in 2011. It suggested that provisions be added for punishing the owner in case of dam failure and fixing liability for compensating affected people, and that an independent regulatory authority on safety measures and a national-level early warning system be set up.

#### **HIGHLIGHTS**

- **Applicability of the Bill:** The Bill applies to all specified dams in the country. These are dams with: (i) height more than 15 metres, or (ii) height between 10 metres to 15 metres and subject to certain additional design and structural conditions.
- **National Committee on Dam Safety:** The Bill provides for the constitution of a National Committee on Dam Safety. The Committee will be chaired by the Chairperson, Central Water Commission. All other members will be nominated by the central government, and include: (i) up to 10 representatives of the central government, (ii) up to seven representatives of the state governments (by rotation), and (iii) up to three dam safety experts.
  - **Functions of the Committee include:** (i) formulating policies and regulations regarding dam safety standards and prevention of dam failures, and (ii) analysing causes of major dam failures and suggesting changes in dam safety practices.
- **National Dam Safety Authority:** The Bill provides for a National Dam Safety Authority. The Authority will be headed by an officer not below the rank of an Additional Secretary who will be appointed by the central government.
  - **Functions of the Authority include:** (i) implementing the policies formulated by the National Committee on Dam Safety, (ii) resolving issues between State Dam Safety Organisations (SDSOs), or between a SDSO and any dam owner in that state, (iii) specifying regulations for inspection and investigation of dams, and (iv) providing accreditation to agencies working on construction, design, and alteration of dams.
- **State Dam Safety Organisation:** The Bill provides for the establishment of State Dam Safety Organisations (SDSOs) by the state governments. All specified dams situated in a state will fall under the jurisdiction of that state’s SDSO. However, in certain cases the National Dam Safety Authority will act as the SDSO.

These include cases where a dam: (i) is owned by one state but situated in another state, (ii) extends over multiple states, or (iii) is owned by a central public sector undertaking.

- **Functions of the SDSOs include:** (i) keeping perpetual surveillance, inspecting, and monitoring the operation and maintenance of dams, (ii) keeping a database of all dams, and (iii) recommending safety measures to owners of dams.
- **State Committee on Dam Safety:** The Bill provides for the constitution of State Committees on Dam Safety by the state governments.
  - **Functions of the Committee include:** (i) reviewing the work of the SDSO, (ii) ordering dam safety investigations, (iii) recommending dam safety measures and reviewing the progress on such measures, and (iv) assessing the potential impact on upstream and downstream states. These states will also have their representatives on the State Committee.

### RAT HOLE MINING

***Despite a ban, rat-hole mining remains a prevalent practice in Meghalaya, where a mine has collapsed and 15 workers are feared dead.***

#### HIGHLIGHTS

The court placed much emphasis on a **report of O P Singh, professor of environmental studies of North Eastern Hills University of Shillong** that explained the environmental concerns over rat-hole mining activities in the Jaintia hills. Mining activity in Jaintia hills is a small scale venture controlled by individuals who own the land, it is a primitive mining method and has been in practice in Jaintia hills and the state for years now.

- The report puts special emphasis on the impact of such mining activities in the water quality of the region.
- It specifies that the water is severely affected by acid mine drainage originating from mines and spoils, leaching of heavy metals, organic enrichment and silting by coal and sand particles.
- The pollution of the water, as the report points out, can be gauged by the colour of water which in most of the rivers and streams in the mining area varies from brownish to reddish orange.
- The water also has high concentration of sulphates, iron and toxic heavy metals, low dissolved oxygen (DO) and high BOD, showing its degraded quality.
- The report further says that roadside dumping of coal is a major source of air, water and soil pollution.
- Off road movement of trucks and other vehicles in the area for coal transportation also adds to the ecological and environmental damage of the area.

#### RAT HOLE MINING

- The method of rat-hole mining involves digging pits ranging from five to 100 m<sup>2</sup> into the ground to reach the coal seam.
- Thereafter, tunnels are made into the seam sideways to extract the coal.
- Coal seams are reached by excavating the side edge of the hill slopes and then coal is extracted through a horizontal tunnel.
- The coal from the tunnel or pit is taken out and dumped on nearby un-mined area, from where it is carried to the larger dumping places near highways for its trade and transportation.

***India is the world's third largest coal-producing nation and coal provides 60% of the country's energy needs, but the industry is poorly regulated.***

**EXTREME WEATHER REPORT**

*These rankings are based on a **Climate Risk Index (CRI)** developed by **Germanwatch**. It analyses quantified impacts of extreme weather events, in terms of fatalities and economic losses.*

**HIGHLIGHTS**

- In a report that places India 14th among countries most affected by extreme weather events in the last 20 years four of the country's neighbours are placed even higher.
- Myanmar is at rank 3, Bangladesh at 7, Pakistan at 8 and Nepal at 11 in the report, prepared by Germanwatch, an independent development organisation.
- It analyses quantified impacts of extreme weather events, in terms of **fatalities and economic losses**. It accounts for these impacts in absolute as well as relative terms. This explains why the four neighbouring countries are listed as more affected by India.

**KOTAWICE RULEBOOK**

*Negotiators from 196 countries finalised a rulebook for the 2015 Paris Agreement at the climate change conference in Katowice, Poland.*

**BACKGROUND**

- The Paris Agreement seeks to keep the global average temperatures "well below" 2°C from pre-industrial times.
- It specifies the steps that countries need to take in the fight against climate change.
- The rulebook prescribes how to do those things, and how each of them would be measured and verified.
- It holds the operational details of the Paris Agreement, the processes and guidelines for its implementation.
- Notably, the rulebook is a dynamic document, as new rules can be added or existing rules amended.
- It would facilitate the implementation of Paris Agreement which is supposed to replace the existing Kyoto Protocol in 2020. Nevertheless, several countries and NGOs feels that the deal reached in Katowice, though welcome, was not enough.

**HIGHLIGHTS**

- The Paris Agreement says every country must have a climate action plan to be periodically updated and submitted to the UN climate body.
- The rulebook now specifies what actions can be included in the action plan, how and when to submit them.
- Further, the Paris Agreement asks every member nation to submit information about their greenhouse gas emissions every two years.
- The **rulebook now specifies**
  1. Which gases to measure.
  2. What methodologies and standards to apply while measuring them.
  3. The kinds of information to be included in their submissions.
- Article 4 of Paris Agreement mandates **nationally determined contributions (NDCs)** by countries. The rules now say that support shall be provided to developing country Parties for the implementation of Article 4.
- Parties shall provide the information necessary for clarity, transparency and understanding as applicable to their NDCs.

- The Paris Agreement demands developed countries to provide “climate finance” to developing countries and submit an account of this.
- The rulebook says what kinds of financial flows - loans, concessions, grants - can be classified as climate finance.
- It specifies how they should be accounted for and the kind of information about them needed to be submitted.

### **INDIA’S TARGETS**

#### **UNDER THE Paris agreement, India has made three commitments.**

1. India’s greenhouse gas emission intensity of its GDP will be reduced by 33-35% below 2005 levels by 2030.
2. Alongside, 40% of India’s power capacity would be based on non-fossil fuel sources.
3. At the same time, India will create an additional ‘carbon sink’ of 2.5 to 3 billion tonnes of Co2 equivalent through additional forest and tree cover by 2030.

### **TO ENHANCE FOREST CARBON SINK**

- Full implementation of **Green India Mission**.
- Launched **Green Highways Policy**: 140,000 km long “tree-line” along both sides of national highways. 1% of project cost to be earmarked for plantation.
- Plantation along Rivers: part of the Namami Gange Mission.
- Finance Commission (FC) Incentive for creation of carbon sink: devolution of funds to states from federal pool (attaches 7.5 % weight to area under forest).
- Reduction in consumption of wood/ biomass as fuel.
- Funds from Compensatory Afforestation Fund Management and Planning Authority (CAMPA): USD 6 billion proposed to be given to States.

### **OTHER PLANS TO GO GREEN**

- India has said in its **national energy plan** that it will generate as much as 56.5% of its electricity from non-fossil fuel sources by 2027.
- India’s **National Electricity Plan of 2018** has forecast that fossil fuel capacity would shift from 218 GW, or 67% of 2017 installed capacity, to 264 GW, or 43% of total installed capacity by 2027.
- REDD-plus.
- National Agro-forestry Policy (NAP).
- Joint Forest Management.
- National Afforestation Programme.

### **QATAR TO LEFT OPEC**

***Qatar — among the world’s smallest countries by area and the richest in terms of per capita gross national income was walking away from OPEC, a cartel of 15 countries that produce about 45% of the world’s oil and contain over 80% of its “proven” reserves.***

### **OPEC**

- The Organisation of the Petroleum Exporting Countries is an intergovernmental organisation of 15 nations, founded in 1960 in **Baghdad** by the first five members - Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela.
- Headquartered since 1965 in **Vienna, Austria**.

- As of September 2018, the 15 countries accounted for an estimated 44 percent of global oil production and 81.5 percent of the world's "proven" oil reserves, giving OPEC a major influence on global oil prices that were previously determined by the so called "Seven Sisters" grouping of multinational oil companies.
- The current OPEC members are the following: **Algeria, Angola, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, the Republic of the Congo, Saudi Arabia, United Arab Emirates, and Venezuela.**
- **Qatar will no longer be a member of OPEC from 1 January 2019.**

#### **INTERNATIONAL DAY OF DISABLED PERSONS**

*International Day of Disabled Persons is observed annually by the United Nations General Assembly from 1992.*

- It aims to promote the rights and well-being of persons with disabilities and to increase awareness of their situation in every aspect of political, social, economic and cultural life.
- The theme for 2018 is '**Empowering persons with disabilities and ensuring inclusiveness and equality**'.
- This year's theme focuses on empowering persons with disabilities for an inclusive, equitable and sustainable development as part of the 2030 Agenda for Sustainable Development.
- Persons with disabilities, as both beneficiaries and agents of change, can fast track the process towards inclusive and sustainable development and promote resilient society for all, including in the context of disaster risk reduction and humanitarian action, and urban development.

#### **DRAFT RIVER BASIN MANAGEMENT BILL, 2018**

*The Draft River Basin Management Bill by the Ministry of Water Resources, proposes optimum development of inter-State rivers by facilitating inter-State coordination ensuring scientific planning of land and water resources.*

It aims to ensure comprehensive and balanced development of both catchment and command areas by taking basin/sub-basin as unit with unified perspectives of water in all its forms (including soil moisture, ground and surface water).

#### **HIGHLIGHTS**

- The draft Bill has proposed to establish 13 River Basin Authorities for various river basins of the country which would result in optimum integrated development and management of inter-State River waters.
- Each authority will have a two-tier system, consisting of a **governing council and an executive board.**
- The council will comprise of **chief ministers** of all states within particular basin.
- The authority will provide the chief ministers of river basin states a forum to discuss all the issues.
- The authorities will be set up for river basins of **Ganga, Indus, Godavari, Mahanadi, Mahi, Narmada, Pennar, Cauvery, Krishna, Tapi, Subarnrekha, Brahmani-Baitarini and Brahamaputra- Barak-inter-state rivers of north-east.**
- The bill provides for a mechanism where chief ministers of basin states will meet at least twice a year to discuss all the issues concerning the river basin and take a call on various issues.
- The chairperson of the governing council will be from the CMs of the basin states, by rotation.
- Any recommendations made by the authority will be binding on all states within the river basin, except those concerning sharing of inter-state river waters.
- The dispute between two or more states will go to the Inter-State River Water Disputes Tribunal only if governing council of the concerned authority fails to address it.
- Each authority will ensure a River Basin Master Plan which will have all elements concerning management of water resources within the basin.

- It includes hydrological assessment, ground water, aquifers, protected areas, flood control, drainage and economic analysis of allocation of water.

### **DIGITAL SKY PLATFORM**

***The DGCA announced the Civil Aviation Regulations (CAR) to enable safe flying of Remotely Piloted Aerial Systems (RPAS) popularly referred to as drones in India.***

#### **HIGHLIGHTS**

- It specified the obligations of operators, remote pilots/ users and manufacturers/ OEM for safe operations of RPAS and co-operative use of airspace.
- It also announced Digital Sky Platform, a first of its kind that implements '**no permission, no take-off**' (**NPNT**) – a novel system of software based self-enforcement to minimize deviations from the CAR.
- The Digital Sky Platform will register and monitor the drones, pilots, and operators for online permission before the take-off.
- This platform is built to evolve with the needs of the rapidly changing industry with Digital Sky Service Providers (DSPs) by extending the functionality of the platform through Application Program Interfaces (APIs).
- To get permissions to fly, RPAS operators or remote pilots will have to file a flight plan.
  1. Flying in the '**green zone**' will require only intimation of the time and location of the flights via the portal or the app.
  2. Permissions will be required for flying in '**yellow zone**'.
  3. Flights will not be allowed in the '**red zone**'.

The Minister for Civil Aviation has constituted a task-force on the recommendation of **Drone Policy 2.0** under the chairmanship of the Minister of State. Drone 2.0 framework for RPAS are expected to include regulatory architecture for autonomous flying, delivery via drones and beyond visual line of sight (BVLOS) flights.

As per the draft Civil Aviation Requirements for Unmanned Aircraft System (UAS), the drones have been classified as follows on the basis of their maximum take-off weight:

- Nano: Less than or equal to 250 gm.
- Micro: Greater than 250 gm and less than or equal to 2 kg.
- Mini: Greater than 2 kg and less than or equal to 25 kg.
- Small: Greater than 25 kg and less than or equal to 150 kg.
- Large: Greater than 150 kg.

### **EMERGENCY RESPONSE SUPPORT SYSTEM**

***The Union Home Minister launched Emergency Response Support System (ERSS) for the State of Nagaland at Kohima.***

#### **HIGHLIGHTS**

- Nagaland is the first amongst the North-Eastern States and the second State in India to launch Pan-India single emergency number '112' under ERSS.
- Under this project, one Emergency Response Centre (ERC) has been established in Kohima along with 3 District Command Centers (DCCs), namely Kohima, Dimapur and Mokokchung.
- The Emergency Response Centre is capable of receiving emergency calls through voice call to 112, email, panic buttons activated calls and 112 India mobile App.
- State of Nagaland has integrated ERSS with Tourist Police and Highway patrol and will expand to interior districts subsequently.

- As a special feature, to ensure safety of women, a unique 'SHOUT' feature exclusively for women has been introduced in 112 India mobile App.
- This feature allows victims to seek immediate assistance from registered volunteers in the vicinity apart from contacting Emergency Response Centre.

#### **INDIA WATER IMPACT SUMMIT 2018**

***India Water Impact Summit is being jointly organized by the National Mission for Clean Ganga (NMCG) and the Centre for Ganga River Basin Management and Studies (cGanga).***

#### **HIGHLIGHTS**

- The India Water Impact Summit is an annual event where stakeholders get together to discuss, debate and develop model solutions for some of the biggest water related problems in the country.
- The Summit will focus on three key aspects:
  1. **Spotlight on 5 states** - Uttarakhand, Uttar Pradesh, West Bengal, Delhi and Bihar. The objective is to showcase the efforts and works going on within the respective states.
  2. **Ganga Financing Forum** - The 2018 Summit also introduces the inaugural Ganga Financing Forum that will bring a number of institutions to a common knowledge, information and partnership platform.
  3. **Technology and Innovation** - This will provide an opportunity to technology and innovation companies from around the world to showcase their solutions for addressing the problems prevalent in the river basin.

#### **cGANGA**

- The **Centre for Ganga River Basin Management and Studies** is a think-tank and Centre of Excellence to the National Mission for Clean Ganga.
- In 2015 a consortium of seven Indian Institutes of Technology (Kanpur, Delhi, Madras, Bombay, Kharagpur, Guwahati and Roorkee) created the **Ganga River Basin Management Plan**.
- The objective of the plan was to take comprehensive measures for the restoration of the wholesomeness of the Ganga ecosystem and improvement of its ecological health, with due regard to the issue of competing water uses in the river basin.

#### **NATIONAL COMMISSION FOR WOMEN**

- The National Commission for Women is a statutory body set up under the National Commission for Women Act, 1990.
- It aims to review the Constitutional and legal safeguards for women; recommend remedial legislative measures, facilitate redress of grievances and advise the Government on all policy matters affecting women.
- The subjects of their campaigns have included dowry, politics, religion, equal representation for women in jobs, and the exploitation of women for labour.
- The commission regularly publishes a monthly newsletter, Rashtra Mahila, in both Hindi and English.

#### **HORNBILL FESTIVAL**

***Hornbill Festival 2018 has been inaugurated in Kohima, coinciding with the Formation Day of Nagaland.***

#### **HIGHLIGHTS**

- Nagas celebrate this festival to revive, protect, sustain and promote the richness of the Naga heritage and traditions.

- Hornbill festival is known as “**Festival of Festivals**” which occurs during 1 – 10 December on an annual basis.
- The festival pays tribute to Hornbill, the most admired and revered bird for the Nagas for its qualities of alertness and grandeur.
- It is organized by State Tourism and Art & Culture Departments and also supported by Union Government.

#### **GREAT HORNBILL**

- The great hornbill also known as the great Indian hornbill or great pied hornbill, is one of the larger members of the hornbill family.
- It is found in the Indian subcontinent and Southeast Asia.
- Its impressive size and colour have made it important in many tribal cultures and rituals.
- The great hornbill is long-lived, living for nearly 50 years in captivity.
- Due to habitat loss and hunting in some areas, the great hornbill is evaluated as vulnerable on the IUCN Red List of Threatened Species. (uplisted from near threatened in 2018).
- It is listed in Appendix I of CITES.

#### **EX-SHINYUU MAITRI**

- It is a bilateral exercise between Japanese Air Self Defence Force (JASDF) and India.
- The theme of the exercise is joint Mobility/Humanitarian Assistance & Disaster Relief (HADR) on Transport aircraft.
- The JASDF C2 aircraft along with aircrew/observers are part of this first air exercise between the two Air Forces.

#### **1<sup>ST</sup> HOMONOID APE FOSSIL**

***Fossil evidences of a hominid species have recently been discovered at Tapar in the Kutch basin of Gujarat.***

#### **HIGHLIGHTS**

- First human-like footsteps were traced from the Olduvai Gorge in Tanzania.
- About 14 million years ago (Miocene) ape-like species first originated on earth and gave rise to the present-day taxonomic family called Hominidae.
- This belief is supported by fossil remains recovered from Africa and beyond, including India, where at least four hominid families are found.
- Two of them belonged to the larger Indopithecus, and the other two to smaller Sivapithecus.
- Indopithecus fossils have been reported earlier from Himachal Pradesh, while those of Sivapithecus from Siwalik regions of India and Pakistan.
- Present discovery is exciting because this is the first-ever discovery of a Sivapithecus fossil outside the Siwaliks.
- This represents a significant southern range extension of Miocene hominoids in the Indian peninsula.
- This fills a time window of approximately 11 million years in the evolutionary history of future hominid remains in India.
- Hominidae includes all great apes – Orangutans, Gorillas, Chimpanzees & Humans.

#### **SEISMIC AIRGUNS & MARINE WILDLIFE**

***The National Oceanic and Atmospheric Administration (NOAA) of USA has recently granted permits for seismic airgun blasting in the Atlantic Ocean.***

#### **HIGHLIGHTS**

- Seismic Air Gun consists of one or more pneumatic chambers that are pressurized with compressed air.
- When it is fired air into a fire chamber which in turn causes a piston to move, thereby allowing the air to escape the main chamber and producing a pulse of acoustic energy.
- This controlled seismic energy used to perform both reflection and refraction seismic surveys i.e they are used to find oil and gas deep underneath the ocean floor.
- Sound from these intense blasts can travel over 2,000 miles.
- It will harm the marine creatures as the companies search for potential oil and gas reserves off the Atlantic coast.
- The testing will involve the use of seismic air guns which fire continuous blasts to ascertain whether deposits of oil and gas are present.
- Scientists have warned that the extreme disruption caused by airguns can harm a wide range of aquatic life, including sea turtles, fish and zooplankton.

#### **CRIMEAN-CONGO HAEMORRHAGIC FEVER**

- Crimean-Congo haemorrhagic fever (CCHF) is a widespread disease caused by a tick-borne virus called Nairovirus.
- CCHF virus causes severe viral haemorrhagic fever outbreaks.
- Such outbreaks have a case fatality rate of up to 40%.
- The virus is primarily transmitted to people from ticks and livestock animals.
- Human-to-human transmission can occur resulting from close contact with the blood, secretions, organs or other bodily fluids of infected persons.
- CCHF is endemic in Africa, the Balkans, the Middle East and Asia, in countries south of the 50th parallel north.
- There is no vaccine available for either people or animals

#### **RAT KANGROO**

***The World Wildlife Fund recently reported that they have suffered a dramatic population decline and could become extinct without urgent action.***

- Northern bettongs, sometimes referred to as rat-kangaroos, are truffle-eating Australian marsupials.
- Their numbers are down by 70% in the past 30 years.
- They are at risk from feral cats, land-clearing and wildfires, which have become more frequent and fierce in Queensland due to climate change.

#### **HAND-IN-HAND 2018**

- It is an exercise conducted annually as part of military diplomacy and interaction between armies of India and China.
- The joint exercise will be conducted at Chengdu, China.
- The aim of the exercise is to build and promote close relations between armies of both the countries and to enhance ability of joint exercise commander to take military contingents of both nations under command.
- The exercise will involve tactical level operations in an International Counter Insurgency/ Counter Terrorist environment under UN mandate.

#### **GREEN GANGA APP**

***The application was launched recently by the Ministry of Water Resources during India Water Impact Summit, 2018.***

- It was developed by **Remote Sensing Centre of ISRO**.

- It is used for geo-tagging of saplings and delineation of plantation boundaries under ongoing afforestation activities of Namami Gange programme.

### **NAMAMI GANGE PROGRAMME**

- It is a flagship programme to accomplish the twin objectives of effective abatement of pollution, conservation and rejuvenation of National River Ganga.
- **The 8 Main Pillars of the programme** are,
  1. Sewerage Treatment Infrastructure.
  2. River-Front Development.
  3. River-Surface Cleaning.
  4. Bio-Diversity.
  5. Afforestation.
  6. Public Awareness.
  7. Industrial Effluent Monitoring.
  8. Ganga Gram

### **AGRICULTURE EXPORT POLICY**

***Union Cabinet has recently approved the Agriculture Export Policy, 2018.***

The policy aimed at doubling the agricultural exports and integrating Indian farmers and agricultural products with the global value chains.

### **OBJECTIVES**

- Doubling agriculture exports from present \$30 billion to \$60 billion by 2022.
- Diversify export basket, destination and boost high value-added agricultural exports.
- Promoting novel, indigenous, organic, ethnic, traditional and non-traditional Agri products exports.
- Providing an institutional mechanism for pursuing market access, tackling barriers and deal with sanitary and phyto-sanitary issues.
- Striving to double India's share in world agri exports by integrating with global value chain at the earliest.
- Enabling farmers to get benefit of export opportunities in overseas market.

### **Elements of Agriculture Export Policy:**

The recommendations in the Agriculture Export Policy have been organised in two categories – **Strategic and Operational.**

- **Strategic**
  1. Policy measures
  2. Infrastructure and logistics support
  3. Holistic approach to boost exports
  4. Greater involvement of State Governments in agri exports.
  5. Focus on Clusters.
  6. Promoting value-added exports.
  7. Marketing and promotion of "Brand India".
- **Operational**
  1. Attract private investments into production and processing.
  2. Establishment of strong quality regimen.
  3. Research & Development.
  4. Miscellaneous.

### **CYBER-PHYSICAL SYSTEMS**

***Union Cabinet has recently approved the launching of "National Mission on Interdisciplinary Cyber-Physical Systems".***

**HIGHLIGHTS**

- The mission aims at establishment of Technology Innovation Hubs (TIH), Application Innovation Hubs (AIH) and Technology Translation Research Parks (TTRP).
- It is a Pan India mission covering Central Ministries, State Governments, Industry and Academia, to effectively use Cyber Physical System (CPS) technologies.
- CPS is an interdisciplinary field that deals with the deployment of computer-based systems that do things in the physical world.
- Smart grids, where electricity is optimally distributed on the basis of calculations in real time by micro-processors and autonomous unmanned vehicles and aircraft navigation systems qualify as 'cyber physical systems.'
- Artificial Intelligence (AI), Internet of Things (IoT), Machine Learning (ML), Deep Learning (DP), Big Data Analytics, Robotics, Quantum Computing, Quantum Communication, Quantum encryption (Quantum Key Distribution) are associated technologies of CPS.

**TRIBAL CIRCUIT: PEREN-KOHIMA-WOKHA**

***The project of development of Tribal Circuit "Peren-Kohima-Wokha" was recently sanctioned by the Ministry of Tourism under Swadesh Darshan Project.***

- This is the first project to be implemented in the State of Nagaland under Swadesh Darshan.
- It is one among the flagship schemes of the Ministry of Tourism for development of thematic circuits in the country in a planned and prioritised manner.
- It is focusing on development of quality infrastructure with objective of providing better experience and facilities to the visitors and fostering the economic growth.

**LEPROSY**

- Leprosy, also known as Hansen's disease, is a bacterial disease.
- It affects skin and nerves which can lead to physical deformity and disability if left untreated.
- It is not hereditary and completely curable, as opposite to general public views on leprosy
- It is only mildly infectious (i.e) more than 85% of cases are non-infectious and over 95% of the population has a natural immunity to the disease.
- Leprosy colonies in the country still faces stigma and government's attention towards it is also going down.
- This is mainly because of WHO declaration of the elimination of leprosy as a public-health concern in India in 2005.
- This has diluted the international funding and reduced attention and made life difficult for the people living in the colonies.

**SEABED 2030**

***Seabed 2030 project was launched at the United Nations (UN) Ocean Conference in June 2017.***

**HIGHLIGHTS**

- It is a collaborative project between the **Nippon Foundation of Japan and the General Bathymetric Chart of the Oceans (GEBCO)**.
- It aims to bring together all available bathymetric data (depth and shape of the ocean floor) to create a map of the world ocean floor by 2030 and make it available to all.
- The bathymetric data is fundamental for understanding ocean circulation, tides, tsunami forecasting, fishing resources, underwater geo-hazards, cable and pipeline routing, mineral extraction, oil and gas exploration.

- The project is aligned with the UN's Sustainable Development Goal 14 to conserve and sustainably use the oceans, seas and marine resources.
- It comprises a global center and 4 regional centers ( Arctic and North Pacific center, Atlantic and Indian Ocean center, South and West Pacific center and Southern Ocean center).

### **GEMCO**

- It is an international group of mapping experts developing a range of bathymetric data sets and data products.
- It operates under the joint auspices of the **International Hydrographic Organization (IHO) and UNESCO's Intergovernmental Oceanographic Commission (IOC)**.
- **IHO** is an intergovernmental organization, established in 1921 to support safety of navigation and the protection of the marine environment.
- Its secretariat is in Monaco, which coordinates IHO's programmes.

### **UNESCO's IOC**

- The Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), established in 1960 as a body with functional autonomy within UNESCO, is the only competent organization for marine science within the UN system.
- The purpose of the Commission is to promote international cooperation and to coordinate programmes in research, services and capacity-building, in order to learn more about the nature and resources of the ocean and coastal areas and to apply that knowledge for the improvement of management, sustainable development, the protection of the marine environment, and the decision-making processes of its Member States.
- In addition, IOC is recognized through the **United Nations Convention on the Law of the Sea (UNCLOS)** as the competent international organization in the fields of Marine Scientific Research and Transfer of Marine Technology.

### **FAO COUNCIL**

*The 160th session of the FAO Council is currently underway in Rome.*

### **HIGHLIGHTS**

- It has approved India's membership to the Executive Board of the **United Nations World Food Program (WFP) for 2020 and 2021**.
- It also approved India's proposal to observe an **International Year of Millets in 2023**.
- The international endorsement comes in the backdrop of **India celebrating 2018 as the National Year of Millets**.

### **BACKGROUND**

- **Food and Agriculture Organisation (FAO)** was established in 1945 with the objective of eliminating hunger and improving nutrition standards by increasing agricultural productivity.
- Its secretariat is in Rome, Italy.
- **WORLD FOOD PROGRAM** was established in 1961 as an experiment to provide food aid through the UN system.
- It is a member of the United Nations Development Group.

### **GLOBAL HACKATHON ON ARTIFICIAL INTELLIGENCE**

*NITI Aayog in partnership with Singapore based Artificial Intelligence (AI) start up going to launch "AI 4 All Global Hackathon".*

**HIGHLIGHTS**

- Its objective is to promote awareness and develop solutions to address challenges in AI algorithms and not compromising data privacy.
- The challenge question seeks to develop solutions in Distributed Computing and Privacy Preserving techniques, such as multi-party computation, in AI.
- NITI Aayog organized its first hackathon, 'MoveHack' in August, on the sidelines of the Global Mobility Summit 2018, with the aim of garnering cutting-edge mobility applications.
- The hackathon will be run two stages –
  1. The first stage will invite ideas for use cases of multi-party computation in areas such as Healthcare, Education, Agriculture, Urbanization, Financial Inclusion.
  2. The second stage will call for these ideas to be matured and developed, with a focus on privacy preserving AI and distributed computing.

**50/50 MILESTONE**

***International Telecommunication Union (ITU) has recently said that by the end of 2018, world will surpass the 50/50 milestone for internet use.***

- It means that for the first time, more than half of the global population will be using internet by the end of 2018.
- This represents an important step towards a more inclusive global information society.
- According to ITU, the world's richest countries have been showing slow and steady growth in Internet use, from 51% in 2005 to 80% now.
- The development is more dramatic in developing countries where 45% people are currently online, compared to just 7.7% in 2005.

**NONEY BRIDGE**

***The bridge is going to be constructed by the Northeast Frontier Railway (NFR) across the river Ijai in the state of Manipur.***

- It is set to get the World's tallest railway bridge and it is expected to be over 142 meters tall.
- It will connect Manipur with the rest of the Country.
- The bridge is a part of the 111-km Jiribam-Tupul-Imphal new broad gauge line project, a national project which is set to be completed by 2022.
- The project also includes 45 tunnels, the longest being 10.28 km, which will be the longest railway tunnel of the northeast.
- It will be twice the height of Qutub Minar which is the tallest minaret made up of brick in the world.
- **Mala-Rijeka viaduct bridge (139 meters) in Europe** currently holds the tallest railway bridge record.

**NATIONAL SECURITY GUARD(NSG)**

***A parliamentary panel has recently recommended that the Centre should take steps to equip NSG with its own dedicated air wing.***

- NSG was raised in the year 1986 following the assassination of former Prime Minister Indira Gandhi and Operation Blue Star.
- It is a force specially equipped to deal with anti-terrorist activities in all its manifestations.
- It doesn't have a cadre of its own or direct recruitment and is instead dependent on personnel sent on deputation from the army and the central armed police forces (CAPF).
- It has Special Action Group (SAG) comprising Army Personnel and the Special Ranger Groups (SRG) comprising personnel drawn from the CAPF/State Police forces.

**REGULATORY INDICATOR FOR SUSTAINABLE ENERGY (RISE)**

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

**HIGHLIGHTS**

- RISE report is published by **World Bank**.
- It rates 133 countries on electricity access, renewable energy, energy efficiency and access to clean cooking.
- It is to provide useful data to policymakers and help the private sector make informed decisions about investing in energy projects.
- It charts global progress on sustainable energy policies.
- The 2018 report finds that the world has seen a huge uptake in sustainable energy policies.
- The report stated that among the four SDG7 target areas renewable energy, energy efficiency, electricity access and access to clean cooking, the last one continued to be the most overlooked and underfunded by policymakers.

**LINGAYAT COMMUNITY**

*The Central Government has rejected the Karnataka Government's proposal seeking a separate minority religion status for the Lingayat community.*

The Centre gave two reasons for rejecting the proposal,

- Lingayat has always been classified under Hindus ever since the first official census in India – 1871
- If Lingayats are treated as a separate religion by providing separate code other than Hindu, all members of the Scheduled Caste professing Lingayat would lose their status as SC along with the consequential benefits.

**LINGAYATS**

- Lingayats are distinct Shaivite religious tradition founded by Basaveshwara, a 12th-century social reformer, Kannada poet, and philosopher.
- They are strict monotheists and instruct the worship of only one God, namely, Linga (Shiva).
- They constitute 17% of Karnataka's state population.
- They are currently classified as a Hindu sub-caste called "Veerashaiva Lingayats".
- Veerashaivism is a Shaiva sect within Hinduism and is predominantly located in Karnataka.
- Veerashaivas claim that Basavanna was not the founder of the Lingayat tradition, but rather a reformer of an already existing religious tradition which they call Veerashaivism.
- The demand for separate religion tag and minority status is a long pending demand of the Lingayat community.

**GROUND WATER EXTRACTION GUIDELINES**

*Central Government has recently notified the revised ground water extraction guidelines which will be effective from June, 2019.*

*India is the largest user of ground water in the world, extracting about 25% of the global ground water extraction.*

**HIGHLIGHTS**

- Ground water extraction in India is regulated by **Central Ground Water Authority (CGWA) constituted under the Environment (Protection) Act of 1986.**
- Ground water is primarily extracted for irrigation in agricultural activities, accounting for 90% of the annual ground water extraction and remaining 10% is for drinking & domestic as well as industrial uses.
- The most important feature of the revised guideline is the introduction of the concept of **Water Conservation Fee (WCF).**
- The WCF payable varies with the category of the area, type of industry and the quantum of ground water extraction.
- WCF is designed to progressively increase from safe to over-exploited areas and from low to high water consuming industries as well as with increasing quantum of ground water extraction.
- The high rates of WCF is to discourage packaged drinking water units in over-exploited areas and a deterrent to large scale ground water extraction.
- The guideline also encourages use of recycled and treated sewage water by industries.
- It exempted the requirement of No-Objection Certificate (NOC) for various following fields,
  1. Agricultural users.
  2. Users employing non-energised means to extract water.
  3. Individual households (using less than 1 inch diameter delivery pipe).
  4. Armed Forces Establishments during operational deployment or during mobilization in forward locations.
  5. Strategic and operational infrastructure projects for Armed Forces, Defence and Paramilitary Forces Establishments.
  6. Government water supply agencies.

#### **PARTNER'S FORUM**

*It is a global health partnership launched in 2005 to accelerate efforts to reduce child and maternal mortality, improve adolescent, child, newborn and maternal health.*

**India has recently hosted the forum this year.**

- It is co-hosted by Ministry of Health and Family Welfare and the Partnership of Maternal, Newborn and Child Health (PMNCH).
- It is an alliance of academic & research institutions, health care professionals, NGOs, global financing mechanisms and the private sector.
- The previous chapters were held in Johannesburg, South Africa (2014), New Delhi, India (2010) and Dar es Salaam, Tanzania (2007).
- This is the second time India is hosting the Partners' Forum.
- Union Health Minister has inaugurated the "Marketplace" at the Forum which is showcasing some of India's best practices and innovations in reproductive maternal, newborn, child and adolescent health (RMNCH+A).

#### **ENSURE PORTAAL**

***Ministry of Agriculture and Farmers' Welfare has recently launched a portal "Ensure" to connect with Direct Benefit Transfer (DBT)***

#### **HIGHLIGHTS**

- It is **developed by NABARD** and **operated under the Department of Animal Husbandry, Dairying & Fisheries.**
- The National Livestock Mission consists of a component called **Entrepreneurship Development and Employment Generation (EDEG).**

- Under this component, subsidy payment for activities related to poultry, small ruminants, pigs etc. through DBT goes directly to the beneficiary's account.
- Ensure online portal was launched to make the DBT better, simpler and transparent.

#### **DEEP SUBMERGENCE RESCUE VEHICLE**

***Indian Navy has recently inducted deep submergence rescue vehicle which will be operational from April, 2019.***

#### **HIGHLIGHTS**

- Currently India operates conventional submarines of the Sindhughosh, Shishumar, Kalvari classes as well as nuclear powered submarines.
- The traditional methods of search and rescue by these conventional submarines during an eventuality exposes them to high degree of risk.
- To overcome this gap, India has acquired a 3rd generation, advanced submarine rescue system considering of a Non-tethered Deep Submergence Rescue Vehicle (DSRV) and its associated equipment.
- It is capable of undertaking rescue from a disabled submarine up to **650 metres depth**.
- The DSRV, operated by a crew of three, can rescue 14 personnel from a disabled submarine at a time.
- The vehicles are developed by **Scotland-based JFD**.
- With this, India joins a select league of navies with the sovereign capability to search, locate and rescue crew from a disabled submarine.

#### **NORTH EAST SPECIAL INFRASTRUCTURE DEVELOPMENT SCHEME**

***Non-Lapsable Central Pool of Resources (NLCPR) was created by the government for the development of North-Eastern states.***

#### **HIGHLIGHTS**

- Accumulations under this fund are made by union ministries which failed to spend 10% of their budget allocation for the development of north eastern region.
- The funds under NLCPR are utilized by Ministry of Development of north east region (DoNER).
- NLCPR scheme has been restructured as North East Special Infrastructure Development Scheme (NESIDS).
- It is fully funded by Central Government.
- One of the objectives of NESIDS is creation of infrastructure in the areas of primary and secondary sectors of education and health.

#### **PM FASAL BIMA YOJANA**

***The PMFBY has replaced two crop insurance schemes, National Agricultural Insurance Scheme as well as the Modified NAIS.***

#### **HIGHLIGHTS**

- Provision of penalties for States and Insurance Companies for the delay in settlement of insurance claims has been incorporated.
- There is a Standard Operating Procedure for evaluation of insurance companies and remove them from the scheme if found ineffective in providing services.
- The Government has also decided to include perennial horticultural crops under the ambit of PMFBY on a pilot basis.
- The scheme, as per the new operational guidelines provides add on coverage for crop loss due to attack of wild animals, which will be implemented on a pilot basis.
- Aadhaar number will be mandatorily captured to avoid duplication of beneficiaries.

- The insurance companies are given a target of enrolling 10% more non-loanee farmers than the previous corresponding season.
- The insurance companies will have to mandatorily spend 0.5% of gross premium per company per season for publicity and awareness of the scheme.

#### **PMFBY**

- In April, 2016, the government of India had launched Pradhan Mantri Fasal Bima Yojana (PMFBY) after rolling back the earlier insurance schemes viz. National Agriculture Insurance Scheme (NAIS), Weather-based Crop Insurance scheme and Modified National Agricultural Insurance Scheme (MNAIS).
- It envisages a uniform premium of only 2% to be paid by farmers for Kharif crops, and 1.5% for Rabi crops. The premium for annual commercial and horticultural crops will be 5%.
- The scheme is mandatory for farmers who have taken institutional loans from banks. It's optional for farmers who have not taken institutional credit.
- PMFBY aims to provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests & diseases.
- There is no upper limit on Government subsidy, even if balance premium is 90%, it will be borne by the Government.

#### **EU COPYRIGHT LAW**

*Article 13 of EU copyright law is an attempt to reshape copyright law for the internet age.*

#### **HIGHLIGHTS**

- It's based around the relationship between copyright holders and online platforms, compelling the latter to enforce tighter regulation over protected content.
- The Article stipulates that platforms should "prevent the availability" of protected works, suggesting these ISSPs will need to adopt technology that can recognize and filter work created by someone other than the person uploading it.
- By this proposed article Memes, remixes and other types of user-generated content would all be put at risk, they claim, as these could technically be seen as breaches of copyright

#### **EXERCISE AVIAINDRA 2018**

- Ex AVIAINDRA is an Air Force level exercise between Indian Air Force and Russian Federation Aerospace Force (RFSAF).
- First AVIAINDRA was conducted in 2014, planned as a bi-annual exercise.
- AVIAINDRA-2018 is the second in the series of bilateral joint exercise between IAF-RFSAF.
- This exercise is unique, where the foreign participants does not bring its assets.

#### **UN MIGRATION COMPACT**

*The Global Compact for Safe, Orderly and Regular Migration has been formally adopted by UN member states at a conference in Marrakesh, Morocco.*

#### **HIGHLIGHTS**

- It is the first intergovernmental negotiated agreement under the auspices of UN to cover all dimensions of migration.
- It aims to protect the human rights of migrants, help them resettle and ensure they have access to education.
- The agreement was signed in the UNGA by adopting a political declaration "**New York Declaration for Refugees and Migrants**" in 2016.

- It is a **non-binding** political accord on member countries.
- Under the agenda, member States committed to cooperate internationally to facilitate safe, orderly and regular migration.
- Few countries have refused to sign or withdrawn from the agreement – USA, Australia, Hungary, Australia, Israel, Poland, Slovakia, the Czech Republic, Austria, Switzerland, Bulgaria, Latvia, Italy, Switzerland and Chile.

### **VACCINE FOR MULTIPLE PATHOGENS**

***A global coalition set up to develop a synthetic vaccine system that could be tailor-made to fight multiple pathogens such as flu, Ebola, Marburg and Rabies.***

#### **HIGHLIGHTS**

- **Coalition for Epidemic Preparedness Innovations (CEPI)** and Britain scientists is developing a “vaccine platform” to fight disease epidemic
- Vaccine platform is using **synthetic self-amplifying RNA (saRNA) approach**.
- SaRNA aims to harness the body’s own cell machinery to make an antigen rather than injecting the antigen itself directly into the body.
- It can be adapted to immunize against different diseases by inserting new genetic sequences.
- The other advantage of this approach is that it’s very rapid to manufacture.
- Antigen – A foreign substance which induces an immune response in the body.
- Antibodies - also called immunoglobulins, are proteins manufactured by the body that help fight against foreign substances called antigens.

***The Coalition for Epidemic Preparedness Innovations, is a "public-private coalition that aims to derail epidemics by speeding up the development of vaccines". CEPI, set up in 2017, aims to dramatically speed up the development of vaccines against new and unknown diseases, collectively known as "Disease X".***

### **NATIONAL PENSION SCHEME**

***The government has recently announced few changes in the scheme.***

#### **HIGHLIGHTS**

- The government increased its share of contribution from the current 10% to 14%.
- The tax exemption limit when withdrawing funds from corpus has also been increased.
- Following the changes, the entire 60% of the fund withdrawn from the corpus is tax-exempted.
- Taken in combination with 40% deposited in annuities, the change means that the entire withdrawal from NPS will now be tax free.
- Contribution by the Government employees under Tier-II of NPS will now be covered for tax exemption up to Rs. 1.5 lakh.
- **It is a pension cum investment scheme launched to provide old age security.**

#### **BACKGROUND**

- The scheme was introduced for central government employees who joined service on or after January 1, 2004 and later extended to all citizens (18-65 years) in 2009.
- The minimum employee contribution in NPS is 10 per cent of basic pay. An equal contribution is made by the government.
- It offers two kinds of accounts – Tier 1 and Tier 2.
- Tier 1 account is non-withdrawable till the person reaches the age of 60.

- The Tier 2 NPS account works like a savings account from where the subscriber is free to withdraw money as and when required.
- The subscribers could withdraw 60% of the corpus, with 40% of mandatory being deposited in annuity schemes.
- Of the 60%, one-third was taxable and two-third was tax exempt. 40% of the fund deposited in annuities is totally tax exempted.

### **KAIGA NUCLEAR PLANT**

***Kaiga plant in Karnataka has recently created a world record for the longest uninterrupted operation for 941 days.***

- It breaks the earlier record of 940 days by the Heysham – 2 reactors of United Kingdom.
- Kaiga is an indigenously built **Pressurised Heavy Water Reactor (PHWR)** run by domestic fuel (Uranium).
- It began commercial operation in 2016.
- While Kaiga is a PHWR and Heysham-2 Unit-8 is an **Advanced Gas Cooled Reactor (AGR)**.

### **PRESSURISED HEAVY WATER REACTOR**

- A pressurized heavy water reactor (PHWR) is a nuclear power reactor, commonly using unenriched natural uranium as its fuel, that uses heavy water (**deuterium oxide D<sub>2</sub>O**) as its coolant and moderator.
- The heavy water coolant is kept under pressure, allowing it to be heated to higher temperatures without boiling, much as in a typical pressurized water reactor.
- While heavy water is significantly more expensive than ordinary light water, it yields greatly enhanced neutron economy, allowing the reactor to operate without fuel enrichment facilities (mitigating the additional capital cost of the heavy water) and generally enhancing the ability of the reactor to efficiently make use of alternate fuel cycles.

### **India's pressurised heavy water reactor power plants:**

- |  |  |
|--|--|
| 1. Tarapur 3 & 4.                                  | 4. Narora 1 & 2.                               |
| 2. Rajasthan 1-6 (with 2 more under construction). | 5. Kakrapara 1 & 2 (3 & 4 under construction). |
| 3. Madras 1 & 2.                                   | 6. Kaiga 1-4.                                  |

### **ADVANCED GAS COOLED REACTOR**

An advanced gas-cooled reactor (AGR) is a British design of nuclear reactor.

- AGRs are using graphite as the neutron moderator and carbon dioxide as coolant. AGRs were developed from the Magnox type reactor.
- AGRs are operating at a higher gas temperature for improved thermal efficiency, thus requires stainless steel fuel cladding to withstand the higher temperature.
- Because the stainless-steel fuel cladding has a higher neutron capture cross section than Magnox fuel (magnesium non-oxidising alloy), low enriched uranium fuel is needed.

### **AGNI – V**

***Agni – V was successfully test fired from a canister on a road mobile launcher from Dr. Abdul Kalam Island, off the coast of Odisha.***

### **HIGHLIGHTS**

- It is India's longest-range ballistic missile which will be inducted into the nuclear arsenal soon.

- It is an Inter-Continental Ballistic Missile (ICBM) with a range of over 5,000 km and can reach most parts of China.
- It is powered by three stage solid fuelled missiles.
- It can carry a payload of 1.5 tonnes.
- It is a part of Integrated Guided Missile Development Program (IGMDP).
- Earlier variants of the Agni family of long-range missiles have already been deployed.

#### **DEAD SEA SCROLLS**

***Israeli scholars have recently deciphered one of the previously unread manuscripts of the Dead Sea Scrolls.***

#### **HIGHLIGHTS**

- The Dead Sea Scrolls are a collection of ancient manuscripts that include the earliest existing copies of books from the Hebrew Bible, date from the 3rd century BC to the 1st century AD.
- Around 900 scrolls were discovered between 1947 and 1956 in the Qumran caves above the Dead Sea.
- The latest deciphered scroll contains references to the 364-day calendar used by the sect, as opposed to the lunar calendar used in Jewish religious practice today.
- It also refers to annual wine and olive harvest festivals no longer observed in Judaism.

#### **BIOPLASTICS**

***A recent study found that shifting to plant-based plastics could lead to generate increased greenhouse gas emission from cropland expansion on a global scale.***

#### **HIGHLIGHTS**

- Plastics are usually made from petroleum, with the associated impacts in terms of fossil fuel depletion and climate change.
- It is estimated that by 2050, plastics could already be responsible for 15% of the global CO<sub>2</sub> emissions.
- Bioplastics, plant-based plastics is often considered as an alternative to petroleum-based plastics.
- They are in principle climate-neutral since they are based on renewable raw materials such as maize, wheat or sugar cane.
- Therefore, producing bioplastics consumes CO<sub>2</sub> and their net greenhouse gas balance is assumed to be zero.

#### **ADVANTAGES**

- They can reduce our carbon footprint.
- Less consumption of non-renewable raw materials.
- A reduction of non-biodegradable waste, which contaminates the environment.
- Increased energy savings in terms of production.
- Fewer harmful additives such as phthalates or bisphenol A.
- No adverse change to flavour or scent in food stored in bioplastic containers.

#### **39<sup>TH</sup> GCC SUMMIT**

***The 39th GCC summit was recently held in Riyadh, Saudi Arabia.***

The summit has failed to resolve a diplomatic crisis that continues to grip the region. Saudi Arabia, Bahrain, UAE and Egypt have imposed an air, land and sea blockade on Qatar since June 2017. The blockading countries has accused Qatar of supporting terrorism.

#### **GCC**

- The Gulf Cooperation Council is a regional political and economic alliance of six Gulf States.
- Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates are the member countries.
- It is headquartered in Riyadh, Saudi Arabia.
- Its aim is to achieve ever closer union between the energy rich Gulf countries.

#### **IDEATE FOR INDIA**

- It is a national challenge to students of classes 6 - 12 across the country to give them a platform to become solution creators for the problems.
- It is designed and launched by the **National e-Governance Division, Ministry of Electronics & IT in collaboration with Intel India, with the support of Ministry of Human Resource Development.**
- "Ideate for India" will empower and enable these students to transition from being 'users' of technology to become 'creators' of new indigenous technologies to solve local problems in their community by re-imagining solutions to work out critical local issues.
- There are 11 core theme areas on which students can share their ideas- **healthcare services, education services, digital services, environment, women safety, traffic, infrastructure, agriculture, social welfare, disability and tourism.**

#### **3<sup>RD</sup> EDITION OF WOMEN TRANSFORMING INDIA AWARDS**

*The NITI Aayog is organising the Third Edition of the Women Transforming India Awards 2018 and is launching the upgraded portal of the Women Entrepreneurship Platform (WEP), 2018.*

#### **HIGHLIGHTS**

- The Women Transforming India Awards were instituted to recognise and celebrate stories of exemplary women from across India.
- This year's theme is "**Women and Entrepreneurship**".
- The **Women Entrepreneurship Platform** seeks to transform the entrepreneurial ecosystem in the country and shall be a one-stop resource centre for future and budding women entrepreneurs.
- It seeks to act as a medium for various stakeholders in the economy to come together and offer integrated services such as Incubator Support, Mentorship, Funding venues, Compliance etc.

#### **NATIONAL MEDICAL DEVICES PROMOTION COUNCIL**

*On the occasion of 4th WHO Global Forum on Medical Devices, at Andhra Pradesh Medtech Zone, in Vishakhapatnam it was announced setting up of a National Medical Devices Promotion Council under the Department of Industrial Policy and Promotion (DIPP) in the Ministry of Commerce & Industry.*

#### **HIGHLIGHTS**

- The Council will be headed by Secretary, DIPP. Apart from the concerned departments of Government of India, it will also have representatives from health care industry and quality control institutions.
- The National Medical Devices Promotion Council will have the following objectives and activities:
  1. Act as a facilitating and promotion & developmental body for the Indian MDI.
  2. Hold periodic seminars & workshops.
  3. Identify redundant processes and render technical assistance to the agencies and departments.
  4. Enable entry of emerging interventions and support certifications for manufacturers to reach levels of global trade norms and lead India to an export driven market in the sector.
  5. Support dissemination and documentation of international norms and standards for medical devices.
  6. Drive a robust and dynamic Preferential Market Access (PMA) policy, by identifying the strengths of the Indian manufacturers and discouraging unfair trade practices in imports; while ensuring pro-active

monitoring of public procurement notices across India to ensure compliance with PMA guidelines of DIPP and DoP.

7. Undertake validation of Limited Liability Partnerships (LLPs) and other such entities within MDI sector, which add value to the industry strength in manufacturing to gain foothold for new entrants.

### **ECO NIWAS SAMHITA 2018**

***Ministry of Power has launched the ECO Niwas Samhita 2018, an Energy Conservation Building Code for Residential Buildings (ECBC-R). The Code was launched on the occasion of National Energy Conservation Day 2018.***

#### **HIGHLIGHTS**

- The implementation of this Code is will give a fillip to energy efficiency in residential sector.
- It aims to benefit the occupants and the environment by promoting energy efficiency in design and construction of homes, apartments and townships.
- The parameters listed in the Code have been developed based on large number of parameters using climate and energy related data.
- Initially, Part-I of the Code has been launched which prescribes minimum standards for building envelope designs with the purpose of designing energy efficient residential buildings.
- The Code is expected to assist large number of architects and builders who are involved in design and construction of new residential complexes in different parts of the country.
- Implementation of this Code will have potential for energy savings to the tune of 125 Billion Units of electricity per year by 2030, which is equivalent to about 100 million ton of Co2 emission.
- ***ECBC for commercial buildings was already in place and revised and updated version of ECBC for commercial buildings was launched in June 2017.***

#### **NATIONAL ENERGY CONSERVATION AWARDS**

- National Energy Conservation Day is celebrated every year on 14th December by Ministry of Power in association with **Bureau of Energy Efficiency**.
- BEE is a statutory body under Ministry of Power which is mandated to implement policy and programmes in the area of energy efficiency and conservation.
- The objective of such initiatives is to reduce energy intensity in our country by optimizing energy demand and reduce emissions of greenhouse gases (GHG) which are responsible for global warming and climate change.
- India has committed to reduction of **33-35% GHG emission by 2030** as part of the document submitted to UNFCCC.

#### **ECO NIWAS PORTAL**

The interactive online portal, **ECO-NIWAS (Energy Conservation – New Indian Way for Affordable & Sustainable homes)** for increasing awareness to build sustainable and energy efficient homes in the country.

### **ONE STOP CENTRES**

***Ministry of Women and Child Development (MWCD), has formulated a Centrally Sponsored Scheme for setting up One Stop Centre, a sub - scheme of Umbrella Scheme for National Mission for Empowerment of women including Indira Gandhi Matritrav Sahyaog Yojana.***

Popularly known as Sakhi, the scheme is being implemented since 1st April 2015. These Centres are being established across the country to provide integrated support and assistance under one roof to women affected by violence, both in private and public spaces in phased manner.

**OBJECTIVES**

- To provide integrated support and assistance to women affected by violence, both in private and public spaces under one roof.
- To facilitate immediate, emergency and non - emergency access to a range of services including medical, legal, psychological and counselling support under one roof to fight against any forms of violence against women.

**HIGHLIGHTS**

- The OSC will support all women including girls below 18 years of age affected by violence, irrespective of caste, class, religion, region, sexual orientation or marital status.
- The Scheme will be funded through Nirbhaya Fund.
- The Central Government will provide 100% financial assistance to the State Government /UT Administrations under the Scheme.

**NATIONAL MISSION ON GOVERNMENT E-MARKET PORTAL**

*The National Mission on GeM (NMG) was launched on 5th September 2018 till 17th October 2018.*

The objective of the Mission was to accelerate the adoption and use of Procurement by Major Central Ministries, States and UTs and their agencies (including CPSUs/PSUs, Local Bodies) on the GeM platform.

**The objectives of the NMG were to:**

1. Promote inclusiveness by catapulting various categories of sellers and service providers.
2. Highlight and communicate 'value add' by way of transparency and efficiency in public procurement, including corruption free governance.
3. Achieve cashless, contactless and paperless transaction, in line with Digital India objectives.
4. Increase overall efficiency leading to significant cost saving on government expenditure in Procurement.
5. Maximizing ease in availability of all types of products and services bought by Government buyers.

**ALTERNATE FUELS**

*To promote alternate fuels and to bring down pollution levels across the country, Government has taken proactive steps to promote environment friendly vehicles which are innovative, ushering in proactive use of natural resources.*

**HIGHLIGHTS**

- The Government has issued various notifications specifying mass emission standards for **Compressed Natural Gas, Biodiesel(B-100), flex-fuel (E 85) or (E 100) and ethanol (ED 95), LNG and flex-fuel Methanol M15 or M100, Methanol MD 95 and duel fuel vehicles.**
- The Government has also mandated mass emission standard for **BS-VI** throughout the country with effect from 1st April 2020.
- Further, for promotion of **electric vehicles**, Government has notified for retro-fitment of hybrid electric system or electric kit to vehicles and has specified the type approval procedure of electric hybrid vehicles.
- The Government has notified that the registration mark for **Battery Operated Vehicles** to be in Yellow colour on Green background for the transport vehicles and for all other cases, in White colour on Green background.
- The Government has also granted exemption to the Battery-Operated Transport Vehicles and Transport Vehicles running on Ethanol and Methanol fuels from requirement of permit.

**INTERNATIONAL YOUTH EXCHANGHE PROGRAMME**

- It is conducted by Department of Youth Affairs, Ministry of Youth Affairs and Sports.
- The objective of this programme is to create an International perspective in the youth and to involve them in promoting peace and understanding.
- Youth from India are sent to a few friendly countries and vice-versa under the “International Youth Exchange Programme” for promoting exchange of ideas, values and culture amongst the youth of different countries and also to develop International understanding.

**SPACE ACTIVITIES BILL, 2017**

***A Bill pending before the Parliament is to encourage both the public and private sectors to participate in the space programme.***

**BACKGROUND**

It is a proposed Bill to promote and regulate the space activities of India. The new Bill encourages the participation of non-governmental/private sector agencies in space activities in India under the guidance and authorisation of the government through the Department of Space.

According to the draft, as few start-up companies in India have shown interest in space systems activities and as space activities need participation from private sector agencies, “there is an urgent need for a legal environment for orderly performance and growth of space sector.”

**HIGHLIGHTS**

- The provisions of this Act shall apply to every citizen of India and to all sectors engaged in any space activity in India or outside India.
- A non-transferable licence shall be provided by the Central Government to any person carrying out commercial space activity.
- The Central Government will formulate the appropriate mechanism for licencing, eligibility criteria, and fees for licence.
- The government will maintain a register of all space objects (any object launched or intended to be launched around the earth) and develop more space activity plans for the country.
- It will provide professional and technical support for commercial space activity and regulate the procedures for conduct and operation of space activity.
- It will ensure safety requirements and supervise the conduct of every space activity of India and investigate any incident or accident in connection with the operation of a space activity.
- It will share details about the pricing of products created by space activity and technology with any person or any agency in a prescribed manner.
- If any person undertakes any commercial space activity without authorization they shall be punished with imprisonment up to 3 years or fined more than ₹1 crore or both.

**FAME – INDIA SCHEME**

***In order to promote manufacturing of electric and hybrid vehicle technology and to ensure sustainable growth of the same, Department of Heavy Industry is implementing FAME-India Scheme- Phase-I [Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India] from 1st April 2015. The scheme, which was initially upto 31st April 2017, has been extended upto 31st March, 2019 or till Notification of FAME-II, whichever is earlier.***

**HIGHLIGHTS**

- The Phase-II of the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME-India) Scheme proposes to give a push to electric vehicles (EVs) in public transport and seeks to encourage adoption of EVs by way of market creation and demand aggregation.
- The draft scheme envisages the holistic growth of EV industry, including providing for charging infrastructure, research and development of EV technologies and push towards greater indigenization. The scheme has not been finalized yet.

#### **FAME-INDIA SCHEME**

- Government of India has notified FAME India Scheme [Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India] for implementation with effect from 1st April 2015, with the objective to support hybrid/electric vehicles market development and Manufacturing eco-system.
- The scheme has 4 focus areas i.e. Technology development, Demand Creation, Pilot Projects and Charging Infrastructure.
- The FAME India Scheme is aimed at incentivising all vehicle segments i.e. 2 Wheeler, 3 Wheeler Auto, Passenger 4 Wheeler Vehicle, Light Commercial Vehicles and Buses.
- The scheme covers Hybrid & Electric technologies like Mild Hybrid, Strong Hybrid, Plug in Hybrid & Battery Electric Vehicles.
- It is under the Department of Heavy Industries.

#### **PMEGP**

***Prime Minister's Employment Generation Programme (PMEGP) is a flagship credit-linked subsidy programme of Government of India being implemented by the Ministry of MSME.***

#### **HIGHLIGHTS**

- The Scheme is aimed at generating self-employment opportunities through establishment of micro-enterprises in the non-farm sector by helping traditional artisans and unemployed youth in rural as well as urban areas.
- Under PMEGP, general category beneficiaries can avail of margin money subsidy of 25 % of the project cost in rural areas and 15% in urban areas.
- For beneficiaries belonging to special categories such as Scheduled Caste/Scheduled Tribe/OBC /Minorities/Women, Ex-serviceman, Physically Handicapped, NER, Hill and Border areas etc. the margin money subsidy is 35% in rural areas and 25% in urban areas.
- Any individual above 18 years of age is eligible.
- For setting up of projects costing above Rs.10 lakh in the manufacturing sector and above Rs. 5 lakh in the business /service sector, the beneficiaries should possess at least VIII standard pass educational qualification.
- The maximum cost of projects is Rs. 25 lakh in the manufacturing sector and Rs. 10 lakh in the service sector.
- Benefit can be availed under PMEGP for setting up of new units only.
- An online PMEGP e- portal has been set up.
- Khadi and Village Industries Commission (KVIC) is the nodal implementation agency at the national level. At the state and district level, state offices of KVIC, Khadi and Village Industries Boards (KVIBs) and District Industry Centres (DIC) are the implementing agencies.

#### **COMMON EFFLUENT TREATMENT PLANTS**

***The Government has sanctioned 6 projects under the IPDS for setting up Common Effluent Treatment plants (CETPs) with Zero Liquid Discharge (ZLD) systems in the state of Rajasthan and Tamil Nadu.***

Government is implementing the **Integrated Processing Development Scheme (IPDS)** for enabling the textile processing sector to meet environmental standards through adoption of appropriate technology, specifically in the area of water and waste water management.

### **INTEGRATED PROCESSING DEVELOPMENT SCHEME**

#### **OBJECTIVES**

The primary objective of the IPDS is to facilitate the textile industry to become globally competitive using environmentally friendly processing standards and technology. The scheme would facilitate the textile units to meet the required environmental standards. The IPDS would create new processing parks as well as support the upgradation of existing processing clusters specifically in the area of water and waste water management as also to promote research and development for a cleaner technology in the processing sector.

#### **HIGHLIGHTS**

- The government has approved the launching of a new Integrated Processing Development Scheme (IPDS) to establish four to six Brown Field projects and three to five Green Field projects with a total cost of Rs. 500 crore to address the environmental issues faced by the textile processing units.
- The scheme will provide government support for establishing common infrastructure to catalyse private sector investments in the major processing clusters.
- The scheme parameters envisage Government support limited to 50% of the project cost with ceiling limit of Rs.75 crore.
- The projects under the scheme would cover the following:
  1. Group A - Water treatment & effluent treatment plant and technology (including marine, Riverine and ZLD).
  2. Group B – Common infrastructure such as captive power generation plants on technology preferably renewable/green technology.
  3. Group C – Common facilities such as Testing Laboratories and R&D centers.
- Government of India grant will be mandatory for Group A only. The Government of India grant shall not be used for procurement of Land. The land will be purchased/arranged by the SPV. The cost of land will not be part of the total project cost.
- The project cost shall be borne by the Center, State, Beneficiary, Bank loan in the ratio of 50:25:15:10 respectively

#### **PCS 1x**

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

#### **HIGHLIGHTS**

- 'PCS 1x' is a cloud based new generation technology, with user-friendly interface.
- This system seamlessly integrates 8 new stakeholders besides the 19 existing stakeholders from the maritime trade on a single platform.
- The platform offers value added services such as notification engine, workflow, mobile application, track and trace, better user interface, better security features, improved inclusion by offering dashboard for those with no IT capability.
- A unique feature of 'PCS1x' is that it can latch on to third party software which provides services to the maritime industry thereby enabling the stakeholders to access wide network of services.
- The system enables single sign on facility to provide one stop interface to all the functionalities across all stakeholders.

- Another major feature is the deployment of a world class state of the art payment aggregator solution which removes dependency on bank specific payment eco system.
- This system will enable trade to have an improved communication with the customs as they have also embarked on an Application Programming Interface (API) based architecture, thereby enabling real time interaction.
- This System offers a database that acts as a single data point to all transactions. It captures and stores data on its first occurrence thereby reducing manual intervention, the need to enter transaction data at various points and thereby reducing errors in the process.
- The platform has the potential to revolutionize maritime trade in India and bring it at par with global best practices and pave the way to improve the Ease of Doing Business world ranking and Logistics Performance Index (LPI) ranks.

#### **SKOCH AWARD**

***Ministry of New and Renewable Energy, Government of India has been conferred the Skoch Award for National Significance at an event held recently in New Delhi.***

#### **HIGHLIGHTS**

- The award has been conferred on the Ministry considering its purpose and critical role played in installing about 73 GW renewable energy capacity in the country.
- Today, India ranks 4 in the world in wind energy capacity and 5th in solar & total renewable energy capacity installed in the world.
- India has played a critical role in setting up of international solar alliance. Further, India moved a resolution during the first meeting for making it a global initiative.

**SKOCH Award**, instituted in 2003, salutes people, projects and institutions that go the extra mile to make India a better nation. SKOCH Award – the highest independently instituted civilian honour – has been conferred; the mighty and the ordinary alike, have received this Award for their extraordinary achievements in contributing to the society.

The SKOCH Award covers the best of efforts in the area of digital, financial and social inclusion.

#### **SHAHPURKANDI DAM PROJECT**

***The Union Cabinet has approved implementation of Shahpurkandi Dam Project, Punjab on river Ravi. For this, Central Assistance of Rs. 485.38 cr (for irrigation component) would be provided over five years from 2018-19 to 2022-23.***

#### **HIGHLIGHTS**

- On completion of the project an Irrigation Potential of 5,000 ha in Punjab State and 32,173 ha in J&K State would be created.
- Funding for Central Assistance to Shahpurkandi Dam project shall be made through NABARD under existing system for funding of 99 PMKSY-AIBP projects under LTIF.
- The project would be implemented by Govt. of Punjab with Central Assistance of Rs. 485.38 crore. The project would be completed by June 2022.

#### **BACKGROUND**

Indus Waters Treaty was signed between India and Pakistan in 1960 for sharing of Indus waters. According to the Treaty, India got the full rights for utilization of waters of the three Eastern Rivers namely Ravi, Beas and Satluj.

Some of the water of the River Ravi at present is going waste through the Madhopur Headworks downstream to Pakistan. Implementation of the project would minimise such wastage of water.

A Bilateral agreement was signed between Punjab and J&K in Jan, 1979. As per the agreement, construction of Ranjit Sagar Dam (Thein Dam) and Shahpurkandi Dam was to be taken up by Punjab Govt. Ranjit Sagar Dam was commissioned in Aug, 2000.

The Project was initially approved by the Planning Commission during November, 2001 and was included under the Accelerated Irrigation Benefits Scheme (AIBP) of this Ministry for funding its irrigation component.

#### **ANNUAL START UP INDIA VENTURE CAPITAL SUMMIT 2018**

***The Department of Industrial Policy and Promotion (DIPP) in the Ministry of Commerce and Industry and the Government of Goa, is hosting the annual Startup India Venture Capital Summit in Goa on December 07, 2018.***

The theme of the Summit is '**Mobilizing Global Capital for Innovation in India.**'

The key objectives of the Summit will be to showcase the India opportunity, increase capital flow for Indian start-ups and further promote ease of doing business.

#### **SOIL HEALTH CARDS**

***Soil Health Card Scheme has been taken up for the first time in a comprehensive manner across the country. Under the scheme soil health cards are provided to all farmers so as to enable the farmers to apply appropriate recommended dosages of nutrients for crop production and improving soil health and its fertility.***

#### **HIGHLIGHTS**

The first phase (2015-17) 100 million SHCs have been distributed so far. The aim of the Ministry is to provide SHC to all 120 million farm holdings by December, 2017. The second phase began on May 1, 2017, and will continue for the year 2017 to 2019.

- SHC informs farmers about nutrients status of the soils along with the recommendation on appropriate dosage of nutrients to improve soil health and fertility.
- A farm will get the soil card once in every 2 years so that nutrients deficiency can be regularly detected and improved.
- Soil Health Card include a uniform approach to collect samples and test them in the laboratory, covering all the land in the country and renew SHC every two years.
- This scheme is being implemented in collaboration with State Governments.
- GPS based soil sample collection has been made compulsory to monitor the changes in soil and to prepare a systematic database to compare them with the past years
- Collecting soil samples at a grid of 2.5 ha in irrigated area and 10 ha in un-irrigated areas.
- Uniform approach in soil testing adopted for 12 parameters viz. primary nutrients (NPK); secondary nutrient (S); micronutrients (B,Zn, Mn. Fe & Cu); and other (pH, EC & OC) for comprehensiveness.

#### **WORLD CUSTOM ORGANISATION**

***The three day 80th Session of the Policy Commission Meeting of the WCO was organised by the Central Board of Indirect Taxes and Customs (CBIC), Government of India in Mumbai, India.***

Issues covered during the three-day Session included those related to Small Island Economies and how to bring them in the mainstream of the supply chain and Free Trade Zones, the issue of menace of illicit financial flows, including Trade Based Money Laundering and ways to control them.

**WORLD CUSTOM ORGANISATION**

- The World Customs Organization (WCO), established in 1952 as the Customs Co-operation Council (CCC) is an independent intergovernmental body whose mission is to enhance the effectiveness and efficiency of Customs administrations.
- Today, the WCO represents 182 Customs administrations across the globe that collectively process approximately 98% of world trade.
- As the global centre of Customs expertise, the WCO is the only international organization with competence in Customs matters and can rightly call itself the voice of the international Customs community.

**HIV/AIDS (PREVENTION & CONTROL) ACT, 2017**

***The Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (Prevention and Control) Act, 2017, came into force on September 10, 2018.***

***It aims to prevent and control the spread of HIV and AIDS in the country and provides for penalties for discrimination against those affected by the virus***

India has the third largest HIV-infected population with an estimated 2 million people. The country aims to decrease new infections by 75 per cent between 2010 and 2020 and eliminate AIDS by 2030.

**HIGHLIGHTS**

- The Act prohibits discrimination or unfair treatment of HIV-infected people on any grounds. It prohibits denial or discontinuation of healthcare services, right of movement, right to reside, purchase, rent or occupy property and hold public or private office etc.
- It prohibits isolation or segregation of an HIV-positive person. Every HIV-positive person has the right to reside in a shared household and use facilities in a non-discriminatory manner.
- The Act reads: "No person shall, by words, either spoken or written, publish, propagate, advocate or communicate by signs or by visible representation or otherwise the feelings of hatred against any protected persons or group of protected person."
- Under the law, no HIV-affected person can be subject to medical treatment, medical interventions or research without informed consent. Further, no HIV positive woman, who is pregnant, can be subjected to sterilisation or abortion without her consent.
- No person is compelled to disclose his HIV status except by an order of the court. A breach of violation attracts a jail sentence of up to two years or a fine of up to Rs 1 lakh, or both.
- Every establishment is obligated to keep HIV-related information protected. Every HIV-positive person is compelled to take reasonable precautions to prevent the transmission of HIV to other persons.
- The state and Centre must make diagnostic facilities, anti-retroviral therapy and opportunistic infection management available to all HIV-infected people, and ensure wide dissemination of the same.
- Every state has to appoint one or more Ombudsmen to inquire into violations of the provisions of the Act. Within 30 days of receiving a complaint, the Ombudsman is required to pass an order as he deems fit. Failing to comply with the orders of the Ombudsman attracts a penalty of up to Rs 10,000.

**JNANPITH AWARD**

***Renowned English fiction writer Amitav Ghosh has been selected for Jnanpith award, 2018.***

- The Jnanpith Award is one of the prestigious literary honours in the country.
- The award was instituted in 1961.
- Any Indian citizen who writes in any of the official languages of India is eligible for the honour.

**KOCHO-MUZIRIS BIENNALE**

***Fourth edition of Kochi-Muziris biennale is being held in Fort Kochi, Kerala.***

- The Biennale was curated by Anita Dube and become the first Biennale in world in which participation of women accounts for half of the participating artists.
- Theme of the Biennale is – “***Possibilities for a Non- Alienated Life***”.
- The Kochi-Muziris Biennale is an international exhibition of contemporary art.
- It is the largest art exhibition in India and the biggest contemporary art festival in Asia.
- The Kochi-Muziris Biennale is an initiative of the Kochi Biennale Foundation with support from the Government of Kerala.

**“HELP US GREEN”**

***An Indian private project, HelpUsGreen is one of 15 ground-breaking projects from around the world that has won this year’s UN climate action award.***

The other 14 projects which won the UN ‘Momentum for Change’ climate action award showcase how ideas, big and small, are successful in tackling climate change.

**“HELP US GREEN”**

- The project collects flowers from temples and mosques across many cities\towns in Uttar Pradesh and recycles them to produce natural incense, organic fertilizers and biodegradable packaging material.
- The project currently employs 1,260 women in Uttar Pradesh, helps in preventing chemical pesticides from entering into the river through temple waste.
- Developed as the world’s first profitable solution to the monumental temple waste problem, the HelpUsGreen’s products are handcrafted by women who earlier used to be manual scavengers.
- The HelpUsGreen aims to provide livelihoods to 5,100 women and recycle 51 tonnes of temple waste daily by 2021.
- Under HelpUsGreen, 11,060 metric tonnes of temple-waste has, so far, been recycled. As a result,110 metric tonnes of chemical pesticides that enter the river through temple waste have been offset.

**UNIVERSAL HEALTH COVERAGE DAY**

***International Universal Health Coverage Day (UHC Day) on 12 December aims to mobilize diverse stakeholders to call for stronger, more equitable health systems to achieve universal health coverage, leaving no one behind.***

The theme of World Health Day is: **Universal health coverage: everyone, everywhere.**

- Universal health coverage (UHC) ensures all people, everywhere, can access the quality health services they need without suffering financial hardship.
- It is a fundamentally political goal rooted in the human right to health.

**FIXED DOSE COMBINATIONS**

***According to a study, of the 110 anti-TB (tuberculosis) Fixed Dose Combinations (FDCs) available in India, only 32 (less than 30%) have been approved by the Central Drugs Standard Control Organisation (CDSCO), the country’s drug regulator.***

***As of April, the CDSCO had approved 1,288 FDCs. This is disproportionately high compared with the availability in a tightly regulated market like USFDA, which has only a few hundred approved FDCs.***

**FIXED DOSE COMBINATIONS**

- A combination drug is a fixed-dose combination (FDC) that includes two or more active pharmaceutical ingredients (APIs) combined in a single dosage form, which is manufactured and distributed in fixed doses.
- Initially, fixed-dose combination drug products were developed to target a single disease (such as with antiretroviral FDCs used against AIDS). However, FDCs may also target multiple diseases/conditions.
- When a combination drug product (whether fixed-dose or not) is a "pill" (i.e., a tablet or capsule), then it is also a kind of "polypill" or combopill.

### **CDSCO**

- The Central Drugs Standard Control Organisation (CDSCO) under Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India is the National Regulatory Authority (NRA) of India.
- Under the Drugs and Cosmetics Act, CDSCO is responsible for approval of New Drugs, Conduct of Clinical Trials, laying down the standards for Drugs, control over the quality of imported Drugs in the country and coordination of the activities of State Drug Control Organizations by providing expert advice with a view of bring about the uniformity in the enforcement of the Drugs and Cosmetics Act.
- Further CDSCO along with state regulators, is jointly responsible for grant of licenses of certain specialized categories of critical Drugs such as blood and blood products, I. V. Fluids, Vaccine and Sera.

### **COMMONWEALTH OF NATIONS**

***Maldives has applied to re-join the Commonwealth.***

### **COMMONWEALTH OF NATIONS**

- The Commonwealth of Nations, at one time known as British Commonwealth, is an organisation of 53 states that were principally below the colonial rule of British Government.
- They came into existence with the proclamation of sovereignty of the state from the colonial rule of British Empire and were later given self-governance.
- It proclaims that the Commonwealth nations are "free and equal."
- The insignia of this Commonwealth Association is Queen Elizabeth II who is considered the Supreme of the Commonwealth nations.
- The member states of the commonwealth are not legally liable or bound to each other. They are rather united by language, history, culture, likeness of the democracy, human rights and the rule of law.
- Their values are listed down within the Commonwealth Charter and the hands of harmony towards the member states are extended by the Commonwealth Games held every four years.
- Former British mandates that did not become members of the Commonwealth are **Egypt, Transjordan, Iraq, British Palestine, Sudan, British Somaliland, Oman, Kuwait, Bahrain, Qatar, and the United Arab Emirates.**
- Established in 1949 by the **London Declaration.**

### **1<sup>ST</sup> INTERNATIONAL CONFERENCE ON SUSTAINABLE WATER MANAGEMENT**

***The first International Conference under the aegis of National Hydrology Project, Union Ministry of Water Resources, River Development and Ganga Rejuvenation is being organized by Bhakra Beas Management Board (BBMB) at Indian School of Business (ISB), Mohali on the theme 'Sustainable Water Management'.***

### **HIGHLIGHTS**

- To foster the participation of and dialogue between various stakeholders, including governments, the scientific and academic communities, so as to promote sustainable policies for water management,

- To create awareness of water-related problems, motivate commitment at the highest level for their solution and thus promote better management of water resources at local, regional, national and international levels.
- The main aim is to bring advancement in water management system to further reduce flood and draughts all over the Globe.

#### **UN COMMITTEE ON ECONOMIC, SOCIAL & CULTURAL RIGHTS**

***Former Indian diplomat, Preeti Saran has been elected unopposed to an Asia Pacific seat on the United Nation's Committee on Economic, Social and Cultural Rights (CESCR).***

***The UN's Economic and Social Council (ECOSOC) elected Saran to the 18-member committee 'CESCR' for a four-year term beginning on January 1, 2019.***

#### **UNCESCR**

- The CESCR was set up in 1985 by the Economic and Social Council (ECOSOC) of the United Nations.
- It was constituted with an aim to monitor on its behalf the implementation of the International Covenant on Economic, Social and Cultural Rights (ICESR), which has been ratified by 169 countries.
- The countries that are parties to the covenant are required to submit reports to the CESCR every five years on how they protect the economic, social and cultural rights.
- The committee examines each report and addresses its concerns and recommendations to the State party in the form of concluding observations.
- The Members of the CESCR serve in their personal capacities as experts and do not represent their countries even though they may be nominated by their own nation.
- The CESCR meets in Geneva and holds two sessions per year, consisting of a three-week plenary and a one-week pre-session working group.

#### **UN GLOBAL COUNTER TERRORISM COORDINATION COMPACT**

***The United Nations has launched a new framework titled 'UN Global Counter-Terrorism Coordination Compact' to combat international terrorism and coordinate efforts across the peace and security, humanitarian, human rights and sustainable development sectors.***

***The 2018 Global Terrorism Index released by the Institute for Economic and Peace, indicates that despite a 27% fall in the number of deaths from acts of terrorism worldwide, the impact of terrorism remains widespread, with 67 countries experiencing deadly attacks, which is the second highest recorded number of countries in the past twenty years. Emerging technologies such as artificial intelligence, drones and 3D (three-dimensional) printing are also being misused.***

#### **UN GLOBAL COUNTER TERRORISM COORDINATION COMPACT**

- The framework is an agreement between the UN chief, 36 organisational entities, the International Criminal Police Organisation (INTERPOL) and the World Customs Organisation to better serve the needs of member states when it comes to tackling the scourge of international terrorism.
- The Coordination Committee of the United Nations will oversee the implementation of the framework and monitor its implementation. The committee will be chaired by UN Under-Secretary-General for counter-terrorism.

#### **CLEAN SEA 2018**

***It is a Regional Level Marine Oil Pollution Response Exercise conducted by Indian Coast Guard (ICG) recently at sea off Port Blair, Andaman & Nicobar (A&B) Islands.***

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

### **MUKHYAMANTRI YATRA YOJANA**

***Delhi state government has launched the 'Mukhyamantri Tirth Yatra Yojana' which offers free travel packages for senior citizens from Delhi to five religious circuits.***

#### **HIGHLIGHTS**

- 1,100 senior citizens from every constituency of Delhi will be able to avail this facility at one go.
- Under this free pilgrimage scheme, a Delhi resident above 60 years will be eligible to take free pilgrimage along with his or her spouse.
- There is no income criterion but preference will be given to those from economically weaker sections on first-come-first-serve basis.
- Employees of central, state and local government or autonomous bodies are not eligible for the scheme.
- The applicant can also take along an attendant above the age of 20 years, if he or his spouse is above 70 years. The expenditure of the attendant will also be borne by the Delhi government.
- Those selected for pilgrimage will be covered with an insurance of Rs 1 lakh each.
- The applicant will have to give a self-certificate that all information being given by them is correct and they have not availed the scheme in the past.
- The selection of pilgrims will be done through draw of lots and respective area MLAs will certify whether the intended beneficiaries belong to Delhi or not.

### **BEACH POLLUTION REPORT**

***The National Centre of Coastal Research (NCCR) has released a report on beach pollution in India.***

#### **HIGHLIGHTS**

- The NCCR conducted a qualitative analysis of the litter on six different beaches on the eastern and western coasts. The study notes that beach pollution is on rise in the country.
- Tourism and fishing are the biggest culprits, contributing most of the plastic litter on beaches.
- The study found that plastic litter from tourism alone accounted for 40%-96% of all beach litter.
- At Chennai's Elliot's Beach, for instance, plastics left by tourists accounted for 40% of all the litter, while at Gopalpur in Odisha, it was as high as 96%. As for the other four beaches, plastics formed 66% of the overall litter on Fort Kochi Beach, 60% at Karnataka's Karwar beach, 87% at Visakhapatnam's R.K. Beach, and 81% at Andaman Island's Rangachang beach.
- After tourism, fishing was the next biggest source of litter. While fishing nets were a major contributor, the processing of fish on the beach also produced a lot of litter.
- Also, the proportion of biomedical litter was high in urban areas, such as Elliot's Beach and Fort Kochi Beach.
- Other than the plastic litter dropped by tourists, similar waste from creeks and inlets made its way into the sea in the monsoon.
- Most of the litter consisted of plastic bottles, cutlery, and thermocol.

**SUGGESTIONS**

- India needs a national marine litter policy to control and manage waste on land and prevent its entry into the marine environment.
- Experts suggest installation of debris booms and fin deflectors upstream as measures to reduce the quantity of floating solid waste entering coastal waters.
- India also needs to start blue-flagging its beaches. The '**blue flag**' is a globally recognised eco-label awarded to beaches and marinas that adhere to strict environmental and safety norms.

**BLUE FLAG PROJECT**

- Launched in December 2017 by the Environment Ministry, the prime objective of the project is to enhance standards of cleanliness, upkeep and basic amenities at beaches.
- Under the project, each state or union territory has been asked to nominate a beach which will be funded through the ongoing Integrated Coastal Management Programme.
- To achieve the Blue Flag standards, a beach has to strictly comply with 33 environment and tourism-related conditions.
- The standards were established by the Copenhagen-based Foundation for Environmental Education (FEE) in 1985.
- For example- a beach must be plastic-free and equipped with a waste management system. Clean water should be available for tourists, apart from international amenities. The beach should have facilities for studying the environmental impact around the area.

**FREIGHT VILLAGE IN VARANASI**

***The Ministry of Shipping has approved the development of Rs. 156 crore freight village in Varanasi adjoining the Inland Waterways Terminal on River Ganga.***

**The Varanasi freight village will be developed by the Inland Waterways Authority of India.**

**HIGHLIGHTS**

- A freight village is a designated area where facilities for various modes of transportation, distribution of goods and other logistics are available in a synchronized manner on a large scale. Freight villages are cargo aggregators, offers various logistic choices to a shipper/cargo owner; i.e. choice of railroad; rail-waterway; road-waterway.
- The main function is management and utilization of various modes of transport, synergizing them and decongesting the existing mode of transportation.

**SAHITYA AKADEMI AWARD**

***India's national academy of letters Sahitya Academy has announced names of 24 poets and authors who will be conferred the prestigious 2018 Sahitya Akademi Award in 24 different Indian languages.***

**SAHITYA AKADEMI AWARD**

- It is literary honour that is conferred annually on Indian writers for their outstanding works of literary merit.
- It was established in 1954.
- It is conferred annually on writers of outstanding works in one of the twenty-four major Indian languages (22 Scheduled Languages+ English and Rajasthani).
- The award consists of a casket containing an engraved copper-plaque (designed by film-maker Satyajit Ray), a shawl and cheque of Rs.1 Lakh.

**RESTRICTED AREA PERMIT**

*The Centre is planning to revisit its decision to lift the Restricted Area Permit (RAP) system from 29 islands of Andaman and Nicobar.*

**BACKGROUND**

To develop tourism, the RAP regime, in place since 1963, was lifted around August this year from 29 islands, including the North Sentinel. The lifting of the regime proved problematic and the decision had “many pros and cons that needed to be re-looked”. Recently, U.S. citizen John Allen Chau was killed in the North Sentinel Island.

**HIGHLIGHTS**

- RAP regime was notified under the Foreigners (Restricted Areas) Order, 1963.
- Under it, foreign nationals are not normally allowed to visit protected or restricted area unless Government is satisfied that there are extra-ordinary reasons to justify their visit.
- Every foreigner, except citizen of Bhutan, who desires to enter and stay in protected or restricted area, is required to obtain special permit from competent authority having power to issue such permits to foreigner, seeking it.
- Citizens of Afghanistan, China and Pakistan and foreign nationals of Pakistani origin are exception and are not allowed to enter such areas.

**WORLD INTELLECTUAL PROPERTY INDICATORS 2018 REPORT**

*World Intellectual Property Indicators 2018 report was recently released in Geneva by the World Intellectual Property Organization (WIPO).*

**HIGHLIGHTS**

- The number of patents granted by India shot up by 50% in 2017, keeping up a trend of steep increases. The patents granted by India increased from 8,248 in 2016 to 12,387 last year.
- Of the patents granted last year, 1,712 went to entities and individuals based in India, and 10,675 to foreigners.
- While India ranked 10th in the number of patents given last year, no Indian company or university figures in last year’s global list of the top 50 patent applicants.

**WIPO**

- The World Intellectual Property Organization (WIPO) is one of the 17 specialized agencies of the United Nations.
- It was created in 1967 “to encourage creative activity, to promote the protection of intellectual property throughout the world.”
- It has currently 188 member states, administers 26 international treaties, and is headquartered in Geneva, Switzerland.
- Non-members are the states of Marshall Islands, Federated States of Micronesia, Nauru, Palau, Solomon Islands, South Sudan and Timor-Leste. Palestine has observer status.
- India is a member of WIPO and party to several treaties administered by WIPO.

**OPERATION OF THE CHEMICAL WEAPON CONVENTION**

- The OPCW is an independent, autonomous international organisation with a working relationship with the United Nations.

- The Organisation for the Prohibition of Chemical Weapons is the implementing body of the Chemical Weapons Convention (CWC), which entered into force in 1997.
- The organisation was awarded the 2013 Nobel Peace Prize “for its extensive efforts to eliminate chemical weapons”.
- The OPCW Member States share the collective goal of preventing chemistry from ever again being used for warfare, thereby strengthening international security.
- To this end, the **Convention contains four key provisions:**
  1. Destroying all existing chemical weapons under international verification by the OPCW.
  2. Monitoring chemical industry to prevent new weapons from re-emerging.
  3. Providing assistance and protection to States Parties against chemical threats.
  4. Fostering international cooperation to strengthen implementation of the Convention and promote the peaceful use of chemistry.
- The **Chemical Weapons Convention prohibits:**
  1. Developing, producing, acquiring, stockpiling, or retaining chemical weapons.
  2. The direct or indirect transfer of chemical weapons.
  3. Chemical weapons use or military preparation for use.
  4. Assisting, encouraging, or inducing other states to engage in CWC-prohibited activity.
  5. The use of riot control agents “as a method of warfare.”

#### **GLOBAL CARBON PROJECT**

***Global carbon emissions are set to hit an all-time high of 37.1 billion tonnes of CO<sub>2</sub> in 2018, according to researchers at the University of East Anglia (UEA) and the Global Carbon Project.***

#### **HIGHLIGHTS**

- India, the third-highest contributor, is projected to see emissions rise by 6.3% from 2017.
- The 2.7% projected global rise in 2018 has been driven by appreciable growth in coal use for the second year in a row, and sustained growth in oil and gas use.
- The 10 biggest emitters in 2018 are **China, U.S., India, Russia, Japan, Germany, Iran, Saudi Arabia, South Korea, and Canada.**
- The EU as a region of countries ranks third. China’s emissions accounted for 27% of the global total, having grown an estimated 4.7% in 2018 and reaching a new all-time high.
- Emissions in the U.S., which has withdrawn from its commitment to the Paris Agreement, account for 15% of the global total, and look set to have grown about 2.5% in 2018 after several years of decline.
- Limiting global warming to the 2015 Paris Agreement goal of keeping the global temperature increase this century to well below 2°C, would need carbon dioxide emissions to decline by 50% by 2030 and reach net zero by about 2050.
- Though coal use contributed to the rise in 2018 from last year, it still remains below its historical high in 2013 but may exceed that if current growth continues.

#### **GLOBAL CARBON PROJECT**

- The Global Carbon Project was formed in 2001 to help the international science community to establish a common, mutually agreed knowledge base that supports policy debate and action to slow the rate of increase of greenhouse gases in the atmosphere.
- It is a **Global Research Project of Future Earth and a research partner of the World Climate Research Programme.**
- It was formed to work with the international science community to establish a common and mutually agreed knowledge base to support policy debate and action to slow down and ultimately stop the increase of greenhouse gases in the atmosphere.

- The Global Carbon Project works collaboratively with the **International Geosphere-Biosphere Programme, the World Climate Programme, the International Human Dimensions Programme on Global Environmental Change and Diversitas, under the Earth System Science Partnership.**

#### **NATIONAL MISSION FOR SUSTAINABLE AGRICULTURE**

***National Mission for Sustainable Agriculture (NMSA) will be implemented during 12th Plan to make agriculture more productive, sustainable and climate resilient; to conserve natural resources; to adopt comprehensive soil health management practices; to optimize utilization of water resources; etc.***

**Soil Health Management (SHM) is one of the most significant interventions under NMSA.**

#### **SOIL HEALTH MANAGEMENT – AIMS:**

- To promote Integrated Nutrient Management (INM) through judicious use of chemical fertilizers including secondary and micro nutrients in conjunction with organic manures and bio-fertilisers for improving soil health and its productivity.
- To strengthen soil and fertilizer testing facilities to give soil test-based recommendations to farmers for improving soil fertility.
- To ensure quality control requirements of fertilizers, bio-fertilizers under Fertiliser Control Order, 1985.
- To upgrade skill and knowledge of soil testing laboratory staff, extension staff and farmers through training and demonstrations.
- To promote organic farming practices, etc.

#### **KANDHAMAL HALDI**

***Odisha's Kandhamal Haldi (turmeric), famous for its healing properties, is all set to receive GI tag.***

- The golden yellow spice, named after the district where it is produced, has been cultivated since time immemorial and is known for its medicinal value.
- Turmeric is the main cash crop of tribal people in Kandhamal. Apart from domestic use, turmeric is also used for cosmetic and medicinal purposes.
- More than 60,000 families (nearly 50% of Kandhamal population) are engaged in growing the variety. The crop is sustainable in adverse climatic conditions.

#### **INDIAN PAVILLION AT COP 24**

***India participated in the inauguration of Indian Pavilion at the 24th meeting of Conference of Parties (COP-24) to the United Nations Framework Convention on Climate Change (UNFCCC) held at Katowice, Poland.***

**Theme of India Pavilion – “One World One Sun One Grid”.**

#### **HIGHLIGHTS**

- The Environment Ministry has launched a nationwide campaign in preserving and protecting the environment called the Green Good Deeds Movement.
- This campaign was prepared to inspire, encourage and involve each and every individual of the society to realize people's participation in accomplishing the goals.
- India's leadership in global climate action has been recognized and Prime Minister Narendra Modi has been bestowed with “Champion of Earth Award” this year by the United Nations in promoting International Solar Alliance and resolve to make India plastic free by 2022.

#### **CHAMPIONS OF THE EARTH AWARD**

- It was launched in 2005.

- “Champions of the Earth”, the UN’s highest environmental honour, celebrates outstanding figures from the public and private sectors and from civil society whose actions have had a transformative positive impact on the environment.
- In 2018, the award was received by Prime Minister Narendra Modi and French President Emmanuel Macron for their leadership in promotion of solar energy.

#### **COP-24**

- The 24th meeting of Conference of Parties (COP-24) to United Nations Framework Convention on Climate Change (UNFCCC) began at Katowice, Poland.
- COP-24 is expected to finalise guidelines for implementation of Paris Agreement adopted in 2016.
- COP is the supreme decision-making body of United Nations Framework Convention on Climate Change (UNFCCC). All States that are Parties to UNFCCC are represented at COP.
- At COP, all parties review implementation of Convention and take decisions necessary to promote the effective implementation of Convention and take decisions necessary to promote the effective implementation of Convention.

#### **ADMIRAL CUP SAILING REGATTA 2018**

- The ninth edition of the Admiral’s Cup Sailing Regatta, the biggest military sailing competitive event in the world as far as the number of participating countries are concerned, is being held at Indian Naval Academy (INA), Ezhimala in Kerala.
- A total of 32 teams, including 30 from foreign countries are taking part in the event.
- It was in 2010 that the Indian Navy instituted the ‘Admiral’s Cup Regatta’ as a ‘fleet race’ in a single crew Olympic class ‘Laser Radial’ sail boat, with eight foreign Naval Academies participating.
- This year’s regatta has the highest ever number of countries participating in the event with first time participation by Bulgaria and Iran.

#### **NJAC**

***The Supreme Court has dismissed the review petition challenging the striking down of a Constitutional Amendment that sought to give the executive a say in the appointment of top judges on grounds of delay and lack of merit.***

#### **BACKGROUND**

On 16 October 2015, in a 4-1 majority verdict, the Supreme Court held that both the Constitution (Ninety-ninth Amendment) Act, 2014, and the National Judicial Appointments Commission (NJAC) Act, 2014, were unconstitutional as it would undermine the independence of the judiciary.

The majority said the two laws affect the independence of the judiciary, and judicial appointments, among other things, should be protected from executive control.

#### **NJAC**

- NJAC is a body responsible for the appointment and transfer of judges to the higher judiciary in India. JAC Bill sought to replace the collegium system of appointing the judges of Supreme Court and 24 High Courts with judicial appointments commission wherein the executive will have a say in appointing the judges.
- A new article, Article 124A, (which provides for the composition of the NJAC) was to be inserted into the Constitution.
- The Bill provided for the procedure to be followed by the NJAC for recommending persons for appointment as Chief Justice of India and other Judges of the Supreme Court (SC), and Chief Justice and other Judges of High Courts (HC).

**COMPOSITION**

- Chief Justice of India (Chairperson, ex officio).
- Two other senior judges of the Supreme Court next to the Chief Justice of India – ex officio.
- The Union Minister of Law and Justice, ex-officio.
- Two eminent persons (to be nominated by a committee consisting of the Chief Justice of India, Prime Minister of India and the Leader of opposition in the Lok Sabha or where there is no such Leader of Opposition, then, the Leader of single largest Opposition Party in Lok Sabha), provided that of the two eminent persons, one person would be from the Scheduled Castes or Scheduled Tribes or OBC or minority communities or a woman. The eminent persons shall be nominated for a period of three years and shall not be eligible for re-nomination.

**MEKEDATU DAM PROJECT**

***Tamil Nadu Chief Minister E K Palaniswami recently wrote to the Prime Minister urging him to stop the process of a feasibility study for the Mekedatu dam project in Karnataka. The study has been cleared by the Central Water Commission (CWC), which has also asked for a detailed project report.***

**ISSUE**

Karnataka intends to build a reservoir across river Cauvery near Mekedatu in Kanakapura taluk. It was first proposed along with Shivanasamudra hydro power project at Shimsa in 2003 with an intention to use the water for a hydro power station and supply drinking water to Bengaluru city.

However, Tamil Nadu objected saying Karnataka had not sought prior permission for the project. Its argument was that the project would affect the flow of Cauvery water to Tamil Nadu.

The state government (KARNATAKA) has decided to develop a 'Balancing Reservoir' or 'Mini KRS' (Krishna Raja Sagar reservoir near Mysuru) near Mekedatu for supplying potable water to Bengaluru and parts of Mysuru region in the near future.

**HIGHLIGHTS**

- It is estimated that after supplying 192 tmc ft water to Tamil Nadu as per the agreement between the two states, another 250 tmc ft water flows to Tamil Nadu, which further joins the sea. The Karnataka government wants to tap this additional water and use it for drinking water needs of Bengaluru. It could either build one reservoir or two reservoirs with 25 tmc capacities each.
- It is a balancing reservoir cum drinking water project on the Cauvery River proposed by Karnataka.
- It is proposed to be located about 110 km from Bengaluru, with storage capacity of 66.50 tmc ft.
- Tamil Nadu objected the project saying that it would affect the flow of Cauvery water to Tamil Nadu.

**CENTRAL WATER COMMISSION**

- It is a premier technical organization in the field of Water Resources.
- It is presently functioning as an attached office of the Ministry of Water Resources.
- It will carry out techno-economic appraisal of medium and major irrigation and multi-purpose projects on inter-state rivers.

**CIMON**

***CIMON, the 1st Robot with Artificial Intelligence to Fly in Space.***

- CIMON is a small robot endowed with artificial intelligence (AI) launched on a two-day trip to the International Space Station aboard SpaceX's Dragon cargo capsule.

- CIMON was developed by the European aerospace company Airbus on behalf of the German space agency. The robot's AI is IBM's famous Watson system.
- CIMON is roughly spherical and weighs 11 lbs. (5 kilograms). The robot can converse with people, and it knows whom it's talking to thanks to facial-recognition software.

#### **BRAHMOS**

***The Defence Acquisition Council (DAC) gave approval for the procurement of BrahMos Missiles for two of the vessels to be built in Russia.***

- The BrahMos is the fastest cruise missile of its class in the world.
- BrahMos missile flies almost three times the speed of sound at Mach 2.8 and has a range of 290 km.
- The missile has been jointly developed with Russia and is named after the rivers Brahmaputra and Moskva in Russia.
- The BrahMos is extremely difficult to be intercepted by surface to air missiles deployed on leading warships around the world.
- The range of the BrahMos missile can be extended up to 400 km as certain technical restrictions were lifted after India became a full member of the Missile Technology Control Regime or MTCR in 2016.

#### **POLAVARAM PROJECT**

***The Supreme Court, hearing a petition on the status of Polavaram multi-purpose project, has ordered the Centre to hold a public hearing in the project affected area in Odisha and Chhattisgarh. The Centre replied saying it was ready to appoint an independent agency to conduct the same.***

#### **POLAVARAM PROJECT**

- Polavaram Project, is an under-construction multi-purpose irrigation project on the Godavari River in the West Godavari District and East Godavari District in Andhra Pradesh.
- The project has been accorded national project status by the Union Government of India and will be the last to be accorded the status.
- Its reservoir spreads into parts of Chhattisgarh and Odisha States also.
- The Polavaram project will harness the waters of the river Godavari by building a 45.72- metre-high, 2.32-km-long dam.
- The earth and rock-filled dam will have a storage capacity of 551 million cubic metre (mcm) and power generation capacity of 960 MW. The initial proposal was for a storage reservoir with a capacity of 424.8 mcm and full reservoir level (FRL) of 45.72 metre.
- The water from the dam reservoir will irrigate 291,778 ha of agricultural land in the districts of Krishna, East and West Godavari and Visakhapatnam through two major canals.
- The dam will submerge 276 villages in Andhra Pradesh's Khammam and East and West Godavari districts, Odisha's Malkangiri district, and Chhattisgarh's Dantewada district, up to a distance of 150 km.

#### **SWACHHTA PAKHWADA**

***As a part of the Swachhta Pakhwada of Ministry of Civil Aviation (2018), the 15 day cleanliness drive, has successfully been observed in M/o Civil Aviation and all of its organization.***

#### **HIGHLIGHTS**

- The Swachhta Pakhwada is observed by various Ministries of Government of India to achieve the goal of universal sanitation, hygiene and 'open defecation free' India by 2019.
- The objective is to bringing a fortnight long cleanliness drive by engaging Central Ministries and Departments, in their jurisdiction.

- An annual calendar is pre-circulated among the Ministries to help them plan for the Pakhwada activities.
- The activities include 'mass pledge' by the employees, inspection and repair work of all sanitary facilities in office premises, disposal of old items, pest control, etc.

### **SWACHH BHARAT MISSION**

- **Objective** - SBM is intended at accelerating the efforts to achieve universal sanitation coverage.
- It aims at achieving Open Defecation Free (ODF) nation and a Swachh Bharat (Clean India) by 2nd Oct, 2019, the 150th anniversary of Mahatma Gandhi.
- **Implementation** - Behaviour change is the primary focus and fundamental tool for achievement of ODF outcomes.
- This is carried out through the Ministry's focused Information, Education and Communication (IEC) programme.
- It also promotes gender sensitive information, behaviour change guidelines and various mass education activities.
- In this line, the Ministry issued the **gender guidelines and Menstrual Management Guidelines**.
- Freedom from Open Defecation (FOD) week was organised from Aug 9 to Aug 15.
- IEC activities Rallies, Marathons, Felicitation of Champions, competitions, mass mobilization of communities across the rural hinterland was carried out during the week.
- Swachh Sankalp se Swachh Siddhi Competition is another major step towards making Swachhta (cleanliness) a people's movement.
- Swachhta Action Plan (SAP) is in line with achieving a Clean India by making swachhata everyone's business.
- SAP is a first of its kind inter-ministerial programme towards this end.
- A separate budget head has been created for this by the Ministry of Finance.
- The sanitation ministry thus coordinates the works with all other Ministries, the state governments, local institutions, NGOs, media and the rest of stakeholders.
- Besides, the ministry is also allocated the charge of SBM-Gramin (rural sanitation programme).

### **DIFFERENTIAL GLOBAL POSITIONING SYSTEM**

***Differential Global Positioning System (DGPS) is an enhancement to the GPS (Global Position System).***

- GPS system based on the satellite technology can have the nominal accuracy of 15 meter whereas DGPS can bring accuracy around 10 cm.
- DGPS uses the fixed ground-based reference stations to broadcast the difference between the coordinates from the GPS and from the fixed position from the base station.
- The digital correction signal is transmitted to all ground-based transmitters called rovers.
- DGPS rely on two stations one is base station and next is rover.

**GPS:** GPS known as Global Positioning System is a collection of number of satellites in the space sending the precise location details in the space back to Earth.

- Signals are obtained by the GPS instrument which uses to calculate its location, speed, time at the location, height of the location and other info.
- It is very popular in the military world and was first developed by the USA military during the Cold war period.
- After early 1980 GPS technology is available to the public.

**CURRENCIES FOR EXCHANGE RATE**

***Central Board of Indirect Taxes and Customs (CBIC) to notify the Korean Won (WON) and Turkish Lira (TRY) in the List of Currencies for Exchange Rate***

**HIGHLIGHTS**

- Under Section 14 of the Customs Act, 1962, the Central Board of Indirect Taxes and Customs (CBIC) notifies the Rate of Exchange for the purpose of conversion of foreign exchange to Indian Rupees (INR) and vice versa for assessment of imports & exports.
- Currently, CBIC notifies exchange rates for 20 currencies for the purpose of valuation of imported and exported goods and it has been now decided to include 2 more currencies namely Korean Won (WON) & Turkish Lira (TRY) in the list of such currencies.
- Notifying Korean Won and Turkish Lira by CBIC will facilitate trade & business by easing the process of conversion of these currencies into INR and vice versa.
- The initiative is also anticipated to help the exporters claim the benefits of **Merchandise Export Incentive Scheme (MEIS)** easily, as the rates of TRY and WON will be readily available on the realization date of remittances.

**MEIS**

- MEIS was launched under Foreign Trade Policy of India (FTP) 2015-20.
- It is one of the two schemes introduced in FP 2015-20, as a part of Exports from India Scheme.
- The other scheme is Service Exports from India Scheme (SEIS).
- Objective of MEIS is to offset infrastructural inefficiencies and associated costs involved in export of goods and products, which are produced and manufactured in India.
- It seeks to enhance India's export competitiveness of these goods and products having high export intensity, employment potential.

**COMBINED GUIDED WEAPON FIRING EXERCISE**

***This was a first of its kind Exercise undertaken by the Indian Air Force in which firing of four different class of missiles – AKASH, SPYDER, OSA-AK-M and IGLA was successfully carried out during day and night in an integrated networked environment.***

**AKASH**

- Akash is a mid-range surface-to-air missile (SAM).
- It is medium range nuclear capable supersonic missile.
- It has been indigenously developed by Defence Research and Development Organisation (DRDO) under Integrated Guided-Missile Development Programme (IGMDP).
- It is multi target, multi directional, all weather air-defence missile system consisting of surveillance and tracking radars for defending vulnerable areas against medium range air targets penetrating from low, medium and high altitudes.
- It has supersonic speeds ranging from Mach 2.8 to 3.5.
- It has capability to carry 55- kg fragmentation warhead that is triggered by proximity fuse.
- It can engage aerial targets up to range of approximately 25 kms. It can reach high altitude of 18 kms and as low as 30 meters.

**SPYDER**

- Spyder (Surface-to-air PYthon and DERby) is an acquired missile system from Israel which is a short-range, quick reaction surface-to-air missile.

- It comprises two missiles- Python and Derby, with an active onboard radar which makes the Spyder system more lethal. Both the missiles are smokeless which makes it harder to detect them visually.
- It can neutralise enemy targets up to a distance of 15 km and at heights between 20 and 9000 metres.
- Besides aircraft and UAVs, it can also neutralise low-level cruise missiles.
- It is an all-weather missile which has an automatic process of engaging an aggressive aircraft or missile.
- Spyder is shorter than India's indigenously developed surface-to-air 'Akash' missile, which has a strike range of 25 km.

### FACTS

- **TRAIN 18** Train 18 is India's first indigenously built engine-less train that has breached the 180 kmph speed threshold during a test run in the Kota-Sawai Madhopur section, becoming the country's fastest train.
- **DHUBRI-PHULBARI BRIDGE:** The DPR for construction of Dhubri-Phulbari Bridge over river Brahmaputra has been finalized. The proposal is in the process of being evaluated by the Public Investment Board (PIB). As, it is a 20 Km long bridge project with navigational span of 12.625 Km, a detailed investigation of soil and hydrology of the area was required to be carried out before finalization of the DPR. The project is being funded by Japan International Cooperation Agency (JICA) and loan agreement has been signed in October, 2018. Construction of the bridge is scheduled to be taken up during the financial year 2019-2020.
- **World's first floating nuclear plant in Russia:** Akademik Lomonosov is the world's first "floating" nuclear power plant (FNPP). It is coming up in Russia. An FNPP is basically a mobile, low-capacity reactor unit operable in remote areas isolated from the main power distribution system, or in places hard to access by land. They are designed to maintain both uninterrupted power and plentiful desalinated water supply in remote areas.
- **ELUM VALLEY:** The Khyber Pakhtunkhwa province in Pakistan is planning to construct a heritage park in Elum Valley, which carries a historical significance to both the Hindus and the Buddhists, to promote religious tourism. Under the project, the Elum Valley would be made a safe abode for the followers of **Hinduism and Buddhism** and as well as for tourists visiting the heritage park.  
  
Elum Valley is located between the Swat and Buner districts in the province, Elum Valley has been a site of divinity and pilgrimage for both the Hindu and the Buddhist communities. According to Hindu belief, Lord Ram spent time meditating there during his 14 years of exile, while Buddhists believe it to be the site where a previous incarnation of Lord Buddha gave up his life.
- **Rajiv Kumar Committee:** The Union Government has constituted a six-member committee to look at selling of 149 small and marginal oil and gas fields of state-owned Oil and Natural Gas Corporation (ONGC) and Oil India Limited (OIL) to private and foreign companies to boost domestic output. The panel is chaired by the NITI Aayog Vice Chairman Rajiv Kumar.
- **63<sup>RD</sup> MAHAPARINIRVAN DIWAS OF DR. B.R. AMBEDKAR:** *The President Shri Ram Nath Kovind led the nation in paying homage to Bharat Ratna Baba Saheb Dr. B.R. Ambedkar on his 63rd Mahaparinirvan Diwas.* Dr. Bhimrao Ramji Ambedkar had died on 6th of December in the 1956 that's why Dr. Babasaheb Ambedkar Mahaparinirvan Din or death anniversary is observed every year all over the India on 6th of December to pay him a lot of tribute and honor. He is called as "The Father of the Indian Constitution.
- **CARBETOCIN:** The World Health Organization (WHO) has come up with a safe and effective alternative to the controversial drug oxytocin. While Oxytocin, must be stored and transported at 2–8 degrees Celsius,

and becomes less effective when exposed to heat, Carbetocin does not require refrigeration and retains its efficacy for at least three years even if it is stored at 30 degrees Celsius, and in 75% relative humidity.

- **Momentum for Change** is an initiative spearheaded by the UN Climate Change secretariat to shine a light on the enormous groundswell of activities underway across the globe that are moving the world toward a highly resilient, low-carbon future. Momentum for Change recognizes innovative and transformative solutions that address both climate change and wider economic, social and environmental challenges.
- **FLOATING SOLAR PLANT: A 50MW floating solar plant will be set up in the country's largest reservoir Rihand dam in Sonbhadra district in UP.** The largest floating solar plant to date is a 2MW one in Vishakhapatnam. Another is a 500-kWh plant built by the Kerala State Electricity Board at the Banasura Sagar Dam.

**(NOTE: CORRECTION IN NOVEMBER 11-20 NOTES)**

**GLOBAL HUNGER INDEX 2018:** In 2018, the GHI was a joint project of **Welthungerhilfe and Concern Worldwide**, with **IFPRI stepping aside** from its involvement in the report. Created in 2006, the GHI was initially published by the International Food Policy Research Institute (IFPRI) and Welthungerhilfe. In 2007, the Irish NGO Concern Worldwide also became a co-publisher. The 2018 Global Hunger Index report presents recommendations for providing a more effective and holistic response to **forced migration and hunger**.