



CENTRE FOR AMBITION
(An Institute for Civil Services)

BACKGROUNDER OCTOBER 2016

AIRCRAFT WITH INDIAN AIRBORNE WARNING SYSTEM SET FOR INDUCTION

The DRDO has fitted its own airborne early warning and control system (AEW & CS) on a modified Embraer ERJ 145 aircraft imported from Brazil. With this, the first of the two small surveillance aircraft carrying the first Indian airborne early warning system is slated to be inducted into the Air Force in about two months.

About airborne early warning and control system (AEW & CS):

The AEW&C system is developed to serve the Indian Air Force in detection and tracking, identification and classification of threats, guidance and interception control, display of air situation picture and multisensor data integration.

- It is developed by DRDO in collaboration with CAB(Centre for Airborne Systems) that provides an airborne surveillance system.
- The system enables the armed forces to communicate with fighter jets and other AEW&C assets, while it also allows for Search and Rescue (SAR) operations, mission planning as well as record and replay for post mission analysis.
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T.N. tops list of endemic flowering plants

According to a recent publication by the Botanical Survey of India (BSI)- Endemic Vascular Plants of India, almost one of every four species of flowering plants found in India is endemic to the country.

Key facts:

- Tamil Nadu accounts for the highest number of species with 410, followed by Kerala with 357 and Maharashtra with 278.
- Of the 18,259 flowering plants reported in the country, 4,303 (over 23%) are found only in India.
- When it comes to the geographical distribution of endemic plants, the Western Ghats tops the list with about 2,116 species, followed by the Eastern Himalayas with 466 species.
- Scientists of the BSI have listed at least 37 species of Black plum Syzygium (Jamun), 10 varieties of Musa (banana), along with 274 species of orchids, which are found only in the country. Four different varieties of roses, two herbs and two climbers and 12 species of jasmines are exclusively found in India.
- Spices list includes 45 species belonging to the common black pepper family, 19 species of ginger and 13 different kinds of large cardamom. There are also 40 species of bamboos (Bambusoideae), which are endemic to India.
- Further some of these endemic species are restricted to only certain areas of the country, like Nepenthes khasiana, an insectivorous plant only found in the Khasi hills of Meghalaya. A total of 58 genera of flowering plants have been found to be endemic to India.
- As far as endemism regarding vascular plants in India is concerned, the publication reveals that of the 19,635 vascular plants found in the country, 4,381 are endemic. This includes 4,303 angiosperms or flowering plants, 12 gymnosperms – mostly Cycads,

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and 66 ferns and fern allies which come under the group Pteridophytes.

- Among the Gymnosperms, non-flowering plants, at least six species of Cycas are found in the country. These plants are known to have existed from the Jurassic era and are commonly referred as living fossils as they grow very slowly.
- Around 53% of all endemic flowering plants are herbs, 20% are shrubs and 15% are trees.
- Among the most widely exploited endemic plants in country is Pterocarpussantalinus, commonly known as red sandal wood, which is found only in the southern parts of the Eastern Ghats. This plant is classified as critically endangered under International Union for Conservation of Nature (IUCN) category because of its dwindling habitat due to economic over-exploitation.

INDIA TO PUSH FOR FUNDS AT CLIMATE TALKS

At the upcoming climate talks in Morocco in November, India is planning to stress most on trying to operationalise the \$100 billion corpus — called the Green Climate Fund — committed by developed countries. Only a fraction of it has been pledged so far.

- India would push for developed countries to make good on their prior commitments on finance and technology. So far, India has received only \$2 million of the \$10 billion committed this year.
- India is stressing on the issue as these funds will help nations work on fulfilling their Intended Nationally Determined Contributions (INDC) which aim to reduce carbon emissions through a host of solutions.
- As part of its INDC plans, India had promised to bring down its emissions intensity, or emissions per unit of the GDP, by at least 33% by the year 2030 as compared to 2005 levels.

GREEN CLIMATE FUND (GCF):

The Green Climate Fund (GCF) is a fund within the framework of the UNFCCC founded as a mechanism to redistribute money from the developed to the developing world, in order to assist the developing countries in adaptation and mitigation practices to counter climate change.

Why it was founded?

It was founded as a mechanism to redistribute money from the developed to the developing world, in order to assist the developing countries in adaptation and mitigation practices to counter climate change.

It was also founded to make a significant and ambitious contribution to the global efforts towards attaining the goals set by the international community to combat climate change.

How it helps?

- The Green Climate Fund will support projects, programmes, policies and other activities in developing country Parties using thematic funding windows.
- It is intended to be the centrepiece of efforts to raise Climate Finance of \$100 billion a year by 2020.
- The Fund will promote the paradigm shift towards low-emission and climate-resilient development pathways by providing support to developing countries to limit or reduce their greenhouse gas emissions and to adapt to the impacts of climate change, taking into account the needs of those developing countries particularly vulnerable to the adverse effects of climate change.
- The Fund will strive to maximize the impact of its funding for adaptation and mitigation, and seek a balance between the two, while promoting environmental, social, economic and development co-benefits and taking a gender-sensitive approach.

Who will govern the Fund?

- The Fund is governed and supervised by a Board that will have full responsibility for funding decisions and that receives the guidance of the COP.
- The Fund is accountable to, and functions under the guidance of, the COP.

5th International Buddhist Conclave

- It is being organized by the Ministry of Tourism in Varanasi-Sarnath in collaboration with the State Governments of Uttar Pradesh and Bihar.
- Participants in the Buddhist Conclave will include international Buddhist opinion makers, tour operators and media, as well as State Governments and domestic tour operators promoting pilgrimages to the Buddhist sites in the country.
- The International Buddhist Conclave is also one of the initiatives being taken by India as its commitment as the land of origin of Buddhism and to improve the experience of pilgrims as well as tourists wishing to savor the essence of Buddhist heritage, at the Buddhist sites of the country.
- The Conclave will include presentations, panel discussion, business to business meetings between the international and domestic tour operators, an exhibition highlighting the Buddhist attractions in India, as well as visits to important Buddhist sites in and around Varanasi and Sarnath.

Paris agreement

- India has ratified the Paris Agreement on climate change on the 147th birth anniversary of Mahatma Gandhi.
- India became 62nd country to ratify the agreement.
- The Paris Agreement on climate change will enter into force one month after 55 countries that account for 55% of global GHG emissions ratify the agreement.

New species of Pika

- A new species of Pika, a mammal belonging to the rabbit and hare family (Lagomorpha), has been discovered in the Himalayas in Sikkim.
- Pikas are members of the rabbit family and live in the mountains or in temperate regions. The common name “pika” is used for any member of the Ochotonidae family.
- Pikas do not hibernate unlike other mammalian species inhabiting such cold climates.

Delhi tops most polluted megacity list

According to WHO, Delhi's air is the worst among world megacities.

Key facts:

- The data show that fine-particulate-matter (PM_{2.5}) levels were almost four times above daily safe levels, on average, for the seven-day period from September 22 to 28, 2016. For long-term exposure, these 24-hour levels are nearly 11 times above the WHO health standards.
- Over the monsoons, Delhi's air was relatively cleaner because the rain and wind diminished the impact of pollutants. But with the season changing, air-quality also diminished, meaning prolonged exposure affects healthy people and “seriously impacts” those with existing disease.
- Delhi recorded a PM₁₀ level of 229 µg/m³, followed by Cairo with 179 µg/m³ and Dhaka with 158 µg/m³ – the top three megacities with the most polluted air globally. Beijing and Shanghai were sixth and seventh on that list.
- Delhi was the only megacity to record a PM₁₀ level above 200 µg/m³, exceeding the WHO air quality standard of 20 µg/m³ by more than 900%. Beijing and Shanghai reported ambient air pollution levels of 108 and 84 µg/m³ respectively.
- Within India, the smaller cities of Gwalior and Allahabad measured the worst levels of ambient air pollution at PM_{2.5} levels of 176 µg/m³ and 170 µg/m³ respectively.

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m³ respectively. A significant portion of northern India falls in a zone with “critical” air pollution-reporting PM_{2.5} levels of over 70 µg/m³ in the WHO’s mapping of air pollution and population.

WHAT’S THE CONCERN?

In 2012, with one million deaths, China reported the highest toll from PM_{2.5} and PM₁₀ pollution. At the time, India followed, reporting 621,138 deaths, nearly 10% of the global toll (6.5 million deaths) associated with outdoor and indoor air pollution.

However, between 2011 and 2015, in a comparison of megacities with population above 14 million, Delhi’s ambient air-pollution levels were worse than Beijing and Shanghai.

WHO guidelines:

The WHO guideline for annual mean levels for PM₁₀ is 20 µg/m³ and for PM_{2.5} is 10 µg/m³. For 24 hours, the levels should not exceed 50 µg/m³ (for PM₁₀) and 25 µg/m³ (for PM_{2.5}).

Why exposure to PM 10 is not good?

It is because most air-pollution deaths are caused by fine, invisible particles, called PM_{2.5}, about 30 times finer than a human hair. These pollutants, if inhaled deep into the lungs, can cause heart attacks, strokes, lung cancer and respiratory diseases, and are known to pose the greatest risk to human beings. PM₁₀, or coarse particulate matter with diameter between 2.5 and 10 micrometers, are primarily made up of dirt and dust from farming, factories and roads, and caused due to the crushing of rocks and soil.

CENTRE CONSTITUTES INSOLVENCY AND BANKRUPTCY BOARD

The Centre has constituted a four-member Insolvency and Bankruptcy Board of India (IBBI) under the Chairmanship of MS Sahoo.

Key facts:

- The oath of office was administered by Finance and Corporate Affairs Minister Arun Jaitley.

- Sahoo is appointed as IBBI Chairman for a period of five years.

Way ahead:

While the Centre has for now set up the IBBI with four members, going forward this will be expanded to 10 (including the Chairman). Three whole-time members and two other members are to be appointed.

Background:

Insolvency and Bankruptcy Code 2016 seeks to establish the Insolvency and Bankruptcy Board of India, to oversee insolvency resolution in the country. The Board will have 10 members, including representatives from the central government and Reserve Bank of India. It will register information utilities, insolvency professionals and insolvency professional agencies under it, and regulate their functioning.

Nobel Prize in Medicine awarded to Yoshinori Ohsumi

The 2016 Nobel Prize in Physiology or Medicine has been awarded to Yoshinori Ohsumi “for his discoveries of mechanisms for autophagy.” The professor is currently at the Tokyo Institute of Technology.

- Ohsumi is a cell biologist. He discovered and elucidated mechanisms underlying autophagy, a fundamental process for degrading and recycling cellular components. He received the Kyoto Prize for Basic Science in 2012.

Background:

The 1974 Medicine laureate, Christian de Duve, coined the term autophagy (meaning “self eating”) in 1963. This concept emerged during the 1960s, when researchers first observed that the cell could destroy its own contents by enclosing it in membranes, forming sack-like vesicles that were transported to a recycling compartment, called the lysosome, for degradation.

WHAT IS AUTOPHAGY?

Autophagy is essentially the body’s internal recycling program – scrap cells are hunted down and the useful parts are stripped out to generate energy or create new

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cells. It is a crucial process to prevent cancerous growths, and, by maintaining a healthy metabolism, helps protect against conditions like diabetes.

CONTRIBUTIONS OF YOSHINORI OHSUMI:

Difficulties in studying the phenomenon meant that little was known until, in a series of brilliant experiments in the early 1990's, Yoshinori Ohsumi used baker's yeast to identify genes essential for autophagy. He then went on to elucidate the underlying mechanisms for autophagy in yeast and showed that similar sophisticated machinery is used in our cells.

Ohsumi's discoveries led to a new paradigm in our understanding of how the cell recycles its content. His discoveries opened the path to understanding the fundamental importance of autophagy in many physiological processes, such as in the adaptation to starvation or response to infection. Mutations in autophagy genes can cause disease, and the autophagic process is involved in several conditions including cancer and neurological disease.

CENTRE ACCEPTS PAY PANEL RECOMMENDATION ON PROMOTION

The Union government has accepted the recommendation of the 7th Pay Commission on Modified Assured Career Progression (MACP) for Central employees.

Key facts:

- There shall be three financial upgradations under the assured promotion scheme counted from the direct entry grade on completion of 10, 20 and 30 years services respectively or 10 years of continuous service in the same level in Pay Matrix, whichever is earlier. This would ensure one minimum promotion for every 10 years till 30 years of service.
- MACP envisages mere placement in the immediate next higher level in the Pay Matrix. Thus in certain cases where regular promotion is not between two successive levels in the Pay Matrix, it will be different than what is available at the time of regular promotion. In such cases, the higher level in the Pay Matrix attached to the next promotion post in the

hierarchy of the concerned cadre/organisation will be given only at the time of regular promotion.

Background:

The Modified Assured Career Progression Scheme was originally introduced in 2008 following the recommendations of the Sixth Pay Commission.

REGIONAL ANTI-DUMPING WORKSHOP

- Regional Anti-Dumping Workshop for Asian Investigating Authorities was recently held in Delhi.
- The Workshop organised by the World Trade Organisation and the Centre for WTO Studies, Indian Institute of Foreign Trade brings together 37 senior officials from 18 investigating authority systems.
- Senior experts from developing countries in the Asian region, along with select developed countries like Australia, Canada, the EU, Japan and the United States participated in the workshop.
- The Workshop aims to assist Asian developing WTO Members' investigating authorities to further enhance their technical capacity to conduct anti-dumping investigations in a fair and efficient manner, in conformity with WTO rules.

DBT IN KEROSENE

- Jharkhand has become the first state in the country to implement Direct Benefit Transfer (DBT) in Kerosene in four identified districts namely, Chatra, Hazaribagh, Khunti and Jantara from 1st October, 2016.
- Under the DBTK Scheme, PDS kerosene is being sold at non-subsidised price, and, subsidy, as admissible, is being transferred to consumers directly into their bank accounts.
- This initiative of the governments is aimed at rationalising subsidy, based on the approach to cut subsidy leakages but not subsidy per se.

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INDIAN BRIDGE MANAGEMENT SYSTEM

The Indian Bridge Management System (IBMS) has been launched.

What is it?

IBMS is being developed to create an inventory of all bridges in the country and rate their structural condition so that timely repair and rehabilitation work can be carried out based on the criticality of the structure.

IBMS is the largest platform in the world owned by a single owner, with database that could exceed 1,50,000 bridge structures. So far 1,15,000 bridges have been inventorized, of which 85,000 are culverts and the rest are bridges.

Why was it necessary?

Lack of any data base on bridges in the country has led to a situation where there is no clear idea about the exact number and location of bridges. Hence, it has become difficult to maintain bridges in proper working condition. Poor condition of bridges hampers efficient transport and has also led to accidents and loss of lives on several occasions.

How it operates?

- During inventory creation each bridge is assigned a unique identification number or National Identity Number based on the state, RTO zone and whether it is situated on an National Highway, State Highway or is a district road.
- Then the precise location of the bridge in terms of latitude-longitude is collected through GPS and based on this, the bridge is assigned a Bridge Location Number.
- Thereafter, engineering characteristics like the design, materials, type of bridge, its age, loading, traffic lane, length, width of carriage way etc are collected and are used to assign a Bridge Classification Number to the structure.
- These are then used to do a structural rating of the structure on a scale of 0 to 9, and each bridge is assigned a Structural Rating Number.

- The rating is done for each component of the structure like integral and non integral deck, superstructure, substructure, bank and channel, structural evaluation, deck geometry, vertical clearance, waterway efficiency etc.
- In addition to the structural rating, the bridges are also being assigned Socio-Economic Bridge Rating Number which will decide the importance of the structure in relation to its contribution to daily socio-economic activity of the area in its vicinity.
- Based on this inventory IBMS will analyse data and identify bridges that need attention. Further inspection will be carried out wherever required to improve the operational availability of the structure, enhance its life and prioritize repair and rehabilitation work. The data will help to decide which bridge needs critical attention, or which needs to be rebuilt.

PM REMEMBERS SHYAMJI KRISHNA VARMA ON HIS BIRTH ANNIVERSARY

Birth anniversary of Shyamji Krishna Varma was celebrated on 4th October.

Shyamji Krishna Varma- Key facts:

- Shyamji Krishna varma was an Indian revolutionary fighter, lawyer and journalist.
- He founded the Indian Home Rule Society, India House and The Indian Sociologist in London.
- An admirer of DayanandSaraswati's approach of cultural nationalism, and of Herbert Spencer, Krishna Varma believed in Spencer's dictum: "Resistance to aggression is not simply justified, but imperative".
- The India House and The Indian Sociologist rapidly developed as an organised meeting point for radical nationalists among Indian students in Britain at the time and one of the most prominent centres for revolutionary Indian nationalism outside India. Most famous among the members of this organisation was Veer Savarkar.
- ShyamjiKrishan was also an admirer of LokmanyaTilak and supported him during the Age of Consent bill controversy of 1890. However, he

rejected the petitioning, praying, protesting, cooperating and collaborating policy of the Congress Party.

PHYSICS NOBEL SHARED BY THREE, ONE HALF BY ONE AND THE OTHER BY TWO

Three physicists have been awarded the Nobel Prize in Physics for rewriting our understanding of exotic quantum states on the surfaces of materials. Their work explains the behavior of superconductors and superfluids by connecting these systems to topology, the mathematical study of spatial properties including surfaces.

- Half of the prize goes to David J. Thouless, a physicist at the University of Washington in Seattle, while the other half will be split between J. Michael Kosterlitz, a physicist at Brown University, and F. Duncan M. Haldane, a physicist at Princeton University.

WHAT IS TOPOLOGY?

Topology is a branch of math that studies what properties are preserved when objects are stretched, twisted, or deformed.

MAHARASHTRA TO BE ON THE CREST OF SCIENCE

Maharashtra State Cabinet has decided to hand over 40.68 hectare government land to the Atomic Energy Department to build the Laser Interferometer Gravitational Wave Observatory Project (LIGO India Project) at Dudhala village in Hingoli district.

Key facts:

- In April this year, India and United States had signed an MoU to set up the LIGO Observatory that recently proved the existence of gravitational waves envisaged by Albert Einstein nearly a century ago.
- With this project, India will join an elite league of countries that support research on gravitational waves. Besides the U.S, U.K, Italy, Germany and Japan have ongoing research in the area.
- The two current LIGO Observatories are located at Hanford, Washington, and Livingston, Louisiana, and are operated by Caltech and MIT.

- The LIGO project is run with the collaboration of 90 universities and research institutions. Thirty people of Indian origin are part of the LIGO project.

BACKGROUND:

The proposed LIGO-India project aims to move one Advanced LIGO detector from Hanford to India. LIGO-India project is envisaged as an international collaboration between the LIGO Laboratory and three lead institutions in the IndIGO consortium: Institute of Plasma Research (IPR) Gandhinagar, Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune and Raja Ramanna Centre for Advanced Technology (RRCAT), Indore.

- LIGO lab would provide the complete design and all the key detector components. Indian scientists would provide the infrastructure to install the detector at a suitable site in India and would be responsible for commissioning it.
- The proposed observatory would be operated jointly by IndIGO and the LIGO-Lab and would form a single network along with the LIGO detectors in USA and Virgo in Italy.

SAGAR PORT PROJECT

- The Central Government has given in principle approval to a grant of Rs. 515 crores to make the development of the proposed Sagar Port project in West Bengal financially viable.
- A Special Purpose Vehicle, BhorSagar Port Limited (BSPL) has been incorporated for the implementation of the project, with Kolkata Port Trust holding 74% equity and the Government of West Bengal holding 26% equity.
- A road-cum-rail bridge is proposed over the river Muriganga to connect the Sagarisland to the mainland.
- The connectivity of this road-cum-rail bridge to the National Highways network and the railway network has also been taken up in right earnest. The Ministry of Road Transport and Highways has agreed, in-principle, to take up widening of NH-117 to a four-

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lane road from Kakdwip to Joka and up to the rail-cum-road bridge to the Sagar Island.

Where is it?

- Sagarisland is an island in the Ganges delta, lying on the continental shelf of Bay of Bengal about 100 km south of Kolkata.
- Who administers it? It comes under South 24 Parganas District in West Bengal. It is governed by the State government of West Bengal.

SBI BRANCH IN MYANMAR

- State Bank of India (SBI) has announced the opening up its foreign branch in Yangon, the capital city of Myanmar.
- With this, SBI became the first domestic bank of India to open a branch in Myanmar.
- The Yangon branch is the 54th foreign branch of the SBI.
- This branch extends the global presence of India's largest lender in 37 countries through 198 offices.

CABINET APPROVES MOU BETWEEN INDIA AND EUROPEAN UNION ON WATER COOPERATION

The Union Cabinet has given its approval for the signing of MoU between India and European Union in the field of water resources.

Key facts:

- The MoU envisages strengthening the technological, scientific and management capabilities of India and the European Union in the field of water management on the basis of equality, reciprocity and mutual benefit.
- It provides technical exchange on water issues, including on integrated water resource management plans within river basins and through study visits.
- The MoU aims to identify key environmental issues and approaches to sustainable development where exchange of experiences and cooperation could be

mutually beneficial to strengthen and further develop cooperation between India and the European Union in the field of water management.

- It envisions a more sustainable management of water resources in India with an objective of tackling the challenges posed by water management in the context of growing population, competing water demands and a changing climate.
- A Joint Working Group is also proposed to be formed to monitor the activities to be carried out in fulfillment of the MoU.

Background:

The Ministry of Water Resources, River Development and Ganga Rejuvenation has been envisaging bilateral cooperation with other countries in water resources development and management through sharing of policy and technical expertise, conducting of training courses, workshops, scientific and technical symposia, exchange of experts and study tours.

The EU States have adopted water pricing policies to provide adequate incentives for users to use water resources efficiently thereby contributing to environmental objectives.

MEMORANDUM OF UNDERSTANDING WITH AARDO

The Union Cabinet has given its approval to the signing of a Memorandum of Understanding (MoU) between India and the African Asian Rural Development Organization (AARDO) for capacity building programmes in the field of rural development.

Key facts:

- The MoU for the triennium 2015 – 2017 is being signed under which capacity building programmes for AARDO member countries will be organized every year during the triennium at various Institutions of Excellence in India such as National Institute of Rural Development & Panchayati Raj (NIRD & PR), institutions governed by the Indian Council of Agricultural Research (ICAR), Indian Institute of Management (IIM) and others.

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- The duration of each training programme shall be of two to three weeks. The Post Graduate Diploma in Rural Development Management Course at NIRD & PR under this scheme is for one year.

ABOUT AARDO:

The AARDO, which has its headquarters in New Delhi, is an autonomous, inter-Governmental organization established in 1962 with the objective of promoting cooperation among the countries of the African – Asian Region in the direction of eradicating thirst, hunger, illiteracy, disease and poverty in the region. AARDO currently has 31 countries of the African – Asian Region under its fold.

INDIA AND AARDO:

India is one of the Founder Members of the Organization and is the largest contributor in terms of membership contribution of US\$ 141,100 apart from contributing by way of providing 70 fully paid training scholarships for Human Resource Development Programme under the Indian Technical & Economic Cooperation Programme (ITEC) to the Organization.

- India has also provided a building for housing the AARDO Secretariat in Delhi and considerable financial assistance is given to AARDO for maintenance of the building.
- Since the year 2009, India is continuing to provide an Additional Contribution of US\$ 600,000 to AARDO for each triennium 2009-2011 to expand its scale and scope of the Capacity Building Programmes of AARDO for the benefit of Member Countries.

CABINET APPROVES AMENDMENTS TO THE HIV AND AIDS (PREVENTION AND CONTROL) BILL, 2014

The Union Cabinet has approved the amendments to the HIV and AIDS (Prevention and Control) Bill, 2014. This comes after the NDA government in July revived the bill to look into its flaws.

- The Bill was first introduced in Parliament by the UPA government in its last days in 2014 and aimed

to make anti-retroviral treatment a legal right of HIV/AIDS patients.

- The HIV and AIDS Bill, 2014 has been drafted to safeguard the rights of people living with HIV and affected by HIV.

KEY PROVISIONS IN THE BILL:

The provisions of the Bill seek to address HIV-related discrimination, strengthen the existing programme by bringing in legal accountability and establish formal mechanisms for inquiring into complaints and redressing grievances.

Role of governments:

- Under the Bill, central and state governments are obliged to provide for anti-retroviral therapy (ART) and management of opportunistic infections (infections that take advantage of weakness in the immune system and occur frequently).
- The bill also prohibits specific acts of discrimination by the state, or any other person, against HIV-positive people, or those living with such people.

Provisions related to discrimination:

- The Bill lays down penal provisions for any discrimination practised against a person with HIV/AIDS and breach of confidentiality.
- The protection mandated in the Bill extends to the fields of employment, healthcare services, educational services, public facilities, property rights, holding public office, and insurance.
- It also provides for confidentiality of HIV-related information and makes it necessary to get informed consent for undertaking HIV tests, medical treatment and research.

Provisions related to ombudsman:

- The bill also provides for an ombudsman. According to the provisions of the Bill, an ombudsman shall be appointed by each state government to inquire into complaints related to the violation of the Act and the provision of health care services.

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- The ombudsman shall submit a report to the state government every six months stating the number and nature of complaints received, the actions taken and orders passed.

Provisions related to guardianship:

- Provisions related to guardianship are also specified. A person between the age of 12 to 18 years who has sufficient maturity in understanding and managing the affairs of his HIV or AIDS affected family shall be competent to act as a guardian of another sibling below 18 years of age.
- The guardianship will apply in matters relating to admission to educational establishments, operating bank accounts, managing property, care and treatment, amongst others.

ROLE OF COURTS:

- Cases relating to HIV positive persons shall be disposed off by the court on a priority basis.
- In any legal proceeding, if an HIV infected or affected person is a party, the court may pass orders that the proceedings be conducted (a) by suppressing the identity of the person, (b) in camera, and (c) to restrain any person from publishing information that discloses the identity of the applicant.
- When passing any order with regard to a maintenance application filed by an HIV infected or affected person, the court shall take into account the medical expenses incurred by the applicant.

Background:

There are approximately 21 lakh persons estimated to be living with HIV in India and the percentage of patients receiving antiretroviral therapy (ART) treatment currently stands at a mere 25.82% as against the global percentage of 41%, according to the 2015 Global Burden of Diseases (GBD).

AUTOMATION THREATENS 69% JOBS IN INDIA: WORLD BANK

According to a World Bank research, automation threatens 69% of the jobs in India, while 77% in China.

Highlights of the research:

- The research paper has said that technology could fundamentally disrupt the pattern of traditional economic path in developing countries.
- Technology has and will continue to fundamentally reshape the world. But the traditional economic path from increasing productivity of agriculture to light manufacturing and then to full-scale industrialisation may not be possible for all developing countries.
- In large parts of Africa, it is likely that technology could fundamentally disrupt this pattern.

Way ahead:

Developing countries are going to lose many jobs due to technological development. Therefore, it is necessary to understand what paths to economic growth will be available for these countries and then adapt our approach to infrastructure accordingly.

UN court rejects disarmament case against India

The United Nations' highest court has rejected nuclear disarmament cases filed by the Pacific nation of the Marshall Islands against Britain, India and Pakistan, saying it did not have jurisdiction.

What has the court said?

The International Court of Justice ruled that the Marshall Islands had failed to prove that a legal dispute over disarmament existed between it and the three nuclear powers before the case was filed in 2014, and that "consequently the court lacks jurisdiction."

What was the case about?

The Marshall Islands had sued India, Pakistan and Britain, and had sought to persuade the UN's highest court to take up a lawsuit, accusing the countries of failing to halt the nuclear arms race.

Background:

- In 2014, the Marshall Islands – a Pacific Ocean territory with 55,000 people – accused nine countries of “not fulfilling their obligations with respect to the cessation of the nuclear arms race at an early date and to nuclear disarmament”. They included China, Britain, France, India, Israel, North Korea, Pakistan, Russia and the United States.
- Eight of the nine countries originally targeted in the lawsuits have officially admitted to possessing a nuclear weapon. Israel has never acknowledged having one, though observers believe it is the sole nuclear-armed nation in the Middle East.
- The government, based in the Marshall Islands capital of Majuro, said by not stopping the nuclear arms race, the countries continued to breach their obligations under the Nuclear Non-Proliferation Treaty (NPT) – even if the treaty has not been signed by countries such as India and Pakistan.
- The Marshall Islands government says it had decided to sue the world’s nuclear heavyweights as it has a particular awareness of the dire consequences of nuclear weapons. Between 1946 and 1958 the United States conducted repeated nuclear tests in the Marshall Islands.
- In March 2014 the Marshall Islands marked 60 years since the devastating hydrogen bomb test at Bikini Atoll that laid waste on the island and exposed thousands in the surrounding area to radioactive fallout. The 15-megatonne test on 1 March, 1954 was part of the intense cold war nuclear arms race and 1,000 times more powerful than the atomic bomb dropped on Hiroshima.

NOBEL PRIZE IN CHEMISTRY GOES TO BUILDERS OF MOLECULAR MACHINES

The Nobel Prize in Chemistry for 2016 has been awarded to Jean-Pierre Sauvage, Sir J. Fraser Stoddart and Bernard L. Feringa for developing molecular machines.

Key facts:

- The 2016 Nobel laureates in Chemistry have miniaturised machines and taken chemistry to a new dimension.
- They have developed molecules with controllable movements, which can perform a task when energy is added.
- The development of computing demonstrates how the miniaturisation of technology can lead to a revolution.
- These molecular machines will most likely be used in the development of things such as new materials, sensors and energy storage systems.

What are Molecular Machines?

- Molecular machines are single-molecules that behave much like the machines people encounter every day: They have controllable movements and can perform a task with the input of energy.
- Examples include a tiny elevator that goes up and down with changes in pH and a super-small motor that spins in one direction when exposed to light and heat.
- BRICS U-17 Football Tournament: India is hosting the first BRICS U-17 Football Tournament. It is being held in Goa. The BRICS U – 17 Football Tournament will be played among the ‘BRICS’ countries Brazil, Russia, India, China and South Africa.

RS.114 CR WORTH PROJECTS HRIDAY PROJECTS APPROVED

Ministry of Urban Development has approved projects worth Rs.114 cr under Heritage Infrastructure Development and Augmentation Yojana (HRIDAY) for improving infrastructure facilities around core heritage sites in five cities of Varnasi, Amritsar, Dwaraka, Puri and Warangal.

- The approval in this regard was given by an inter-Ministerial HRIDAY National Empowered Committee.

ABOUT HRIDAY:

The National Heritage Development and Augmentation Yojana (HRIDAY) aims to preserve and rejuvenate the rich cultural heritage of the country.

Key facts:

- It seeks to promote an integrated, inclusive and sustainable development of heritage sites, focusing not just on maintenance of monuments but on advancement of the entire ecosystem including its citizens, tourists and local businesses.
- Central government will meet the entire expenditure under the scheme. But, the states and local urban bodies are requested to supplement their resources for rapid development of heritage cities.
- The project will work through a partnership of Government, Academic Institutions and local community combining affordable technologies.
- The 12 cities selected for the scheme are Ajmer, Amritsar, Amravati, Badami, Dwarka, Gaya, Warangal, Puri, Kanchipuram, Mathura, Varanasi and Velankanni.
- With 32 UNESCO recognized natural and cultural heritage sites, ranking second in Asia and fifth in the world, the tourism potential of the country is still to be fully harnessed and this scheme will help in this regard.

GSAT-18, ISRO'S LATEST COMMUNICATION SATELLITE, LAUNCHED SUCCESSFULLY

Marking another success for the space agency, ISRO's latest communication satellite GSAT-18 has successfully been launched from Arianespace's European launcher Ariane-5 VA-231 in French Guiana.

Key facts:

- GSAT-18 is the 20th satellite from ISRO to be launched by the European space agency and this mission was the 280th for Arianespace launcher family.

- The main aim of GSAT-18 is to provide telecommunications services. It would strengthen ISRO's present fleet of 14 operational telecom satellites.
- GSAT-18's mission life is around 15 years, and carries Ku-band beacon to help in accurately pointing ground antennas towards the satellite.
- Television, telecommunication, VSAT and digital satellite news gathering are a few of the services that GSAT 18 will support in coming days.
- The satellite carries 48 communication transponders in C-band, upper extended C-band and Ku-band for providing various services to the country.
- The GSAT-18 has been placed in a Geosynchronous Transfer Orbit (GTO). In the coming days, ISRO will perform the orbit raising manoeuvres to place the GSAT-18 in the Geostationary Orbit (36,000 km above the equator).

CENTRE PLANS TO SET UP BOARD OF INTERNAL TRADE

The Commerce and Industry Ministry is planning to set up a Board of Internal Trade to address all the issues pertaining to domestic trade. The board was initially proposed by the Confederation of All India Traders.

Need for such a board:

In a large and diverse market like India, internal trade has several issues that will need special attention. The government, through such a Board, will benefit from getting alerts about the problems being faced by the domestic industry.

Who will monitor the board?

The board will be set up under a single ministry — the Commerce and Industry Ministry. This is necessary as currently internal trade comes under the ambit of multiple ministries leading to delays in addressing their issues.

250 AGRI MARKETS INTEGRATED WITH ONLINE PLATFORM SURPASSING TARGET: MINISTER

The Centre has integrated 250 regulated agricultural markets across 10 States to the online trading platform for agriculture produce, e-NAM, surpassing the target of 200 set for the period.

- Commodities worth ₹ 421 crore have already been traded on the platform and more than 1,60,000 farmers and 46,888 traders have got themselves registered.
- The Agriculture Ministry had set a target of connecting all 585 mandis to the e-platform by March 2018.

E-NAM:

- E-NAM, or the National Agriculture Market, is a pan-India electronic portal for the sale and purchase of agricultural produce launched in April this year.
- The idea behind the online market is to reduce the transaction cost, provide a single licence valid across all markets, help farmers identify the best buyers, enable single point levy of market fees and maintain quality standards with provision for quality testing.
- About 69 agricultural and horticultural commodities, including fruits and vegetables are notified for trading on the e-NAM platform.

RBI TO BE DIVESTED OF DEBT MANAGEMENT ROLE IN 2 YEARS

The Centre has decided to set up an independent agency to manage its debt. As a precursor, the Finance Ministry will soon set up the Public Debt Management Cell (PDMC) in the Budget Division.

Key facts:

- PDMC will allow separation of debt management functions from RBI to the Public Debt Management Agency (PDMA) in a gradual and seamless manner, without causing market disruptions. The cell will be converted to a statutory authority in about two years' time.

- This move would help divest the RBI of its dual and often conflicting roles as the banker and manager of the Centre's borrowing.

FUNCTIONS OF PDMC:

- The PDMC will at present only have advisory functions to avoid "any conflict" with the statutory powers of the RBI.
- To start with, it would plan the borrowings of the Centre, manage the Central government liabilities and monitor the cash balances.
- It would also develop an integrated debt database system as a centralised data base for all liabilities of the government on a near real time basis.
- It will also advise government on matters related to investment, capital market operations and interest rates on small savings as well as undertake requisite preparatory work for PDMA.

COMPOSITION OF PDMC:

The PDMC would be staffed with 15 "experienced" debt managers from the Budget Division, RBI, middle office and other units and would be under the overall supervision of the Joint Secretary (Budget), Department of Economic Affairs.

Way ahead:

The transition process from PDMC to PDMA would be implemented by a joint implementation committee (JIC). The JIC would in turn be supervised by the monitoring group on cash and debt management that would be co-chaired by Economic Affairs Secretary and RBI Deputy Governor.

POLYGAMY NO LONGER PROGRESSIVE, SC TOLD

The centre has informed the Supreme Court that it is opposed to the Muslim practice of triple talaq. It has also described this practice as "misplaced in a secular country."

Background:

The constitution allows Muslims, the biggest religious minority group in the country, to regulate matters such as marriage, divorce and inheritance through their own civil code. The Supreme Court has been examining how much it can interfere in Muslim laws governing family-related issues as it hears a plea to end the practice which permits Muslim men to divorce their wives by saying talaq three times.

The court had asked the government to weigh in on the debate as to whether intervening in the law would violate the Muslim community's fundamental rights.

What has the centre said?

The centre says "gender equality and the dignity of women are not negotiable" and told judges that "even theocratic states have undergone reforms in this area of law" which reinforces that these practices cannot be considered an integral part of practice of Islam.

What activists say?

Women's rights activists have long called for reform of the Muslim personal law which they say discriminates against women. What they want instead is a well-defined law that criminalises polygamy, unilateral divorce and child marriage.

Campaigners say the "triple talaq" practice is unconstitutional because it violates the right to equality.

Counter arguments:

According to the top decision-making body for Muslims in India, the All India Muslim Personal Law Board, the court cannot interfere in the religious freedom of minorities and "rewrite personal laws in the name of social reform".

MAHARASHTRA BECOMES 17TH STATE TO JOIN UDAY: AN OVERALL NET BENEFIT OF RS. 9725 CRORES TO ACCRUE TO THE STATE

Government of India has signed a Memorandum of Understanding (MOU) with Government of Maharashtra and Maharashtra State Electricity Distribution Co. Ltd.

(MSEDCL) under the Ujwal DISCOM Assurance Yojana (UDAY).

Key facts:

- Under UDAY, sixteen states/UT have already signed the MoU till date, Maharashtra being the seventeenth.
- The combined DISCOM debt, including Central PSU dues, that would be restructured in respect of these states is around Rs.2.57 lakh crores, which is around 68% of the total outstanding DISCOM debt as on 30th September, 2015.
- An overall net benefit of approximately Rs.9725 crores would accrue to Maharashtra by opting to participate in UDAY, by way of cheaper funds, reduction in AT&C losses, interventions in energy efficiency, coal reforms etc. during the period of turnaround.
- Under UDAY, Maharashtra Government has committed to take over 75% of DISCOM's non-capex debt of around Rs.6600 crores during the current year. Balance 25% of such debt remaining with the DISCOM would be converted into Bonds or repriced at cheaper rates. This would reduce the interest burden of the State/DISCOM by Rs.595 crores.

ABOUT UDAY:

The UDAY scheme is aimed at bringing ailing power distribution companies (discoms) to a state of operational efficiency, with state governments taking over up to 75% of their respective discoms' debt and issuing sovereign bonds to pay back the lenders.

UDAY envisages a permanent resolution of past as well as potential future issues of the sector. The scheme seeks to achieve this through several simultaneous steps including reducing the interest burden on the discoms by allowing the states to take over the bulk of their debt, reducing the cost of power, and increasing the operational efficiencies of the discoms by providing capital and infrastructure like coal linkages.

NEW TERMITE SPECIES DISCOVERED IN KERALA

- A new termite species, *Glyptotermes Chiraharitae*, has been discovered at Kakkayam in the Malabar Wildlife Sanctuary.
- The species are named 'Chiraharitae', after the tropical evergreen forests of the Western Ghats, where the termite was spotted.
- The flying adults of this species are approximately 10 mm long, while the soldiers are around 9.5 mm long.
- Termites are of three types — dry wood, damp wood, and subterranean. The new species are of the damp wood category, and they infest parts of woods with high moisture content, the decaying or rotting areas in particular.
- They are exclusively wood dwelling and do not require any contact with soil. Its relatives are known to attack mango, sal, banyan trees, Rhododendron, Artocarpus, silver oak, and jamun trees.

NOBEL PEACE PRIZE

Colombian President Juan Manuel Santos has won the Nobel Peace Prize for his efforts in bringing to an end to 52 years of conflict with the Revolutionary Armed Forces of Colombia (FARC).

SC WIDENS AMBIT OF DOMESTIC VIOLENCE ACT

The Supreme Court has widened the scope of the Domestic Violence Act.

What changes have been made?

- The court has ordered striking down of the two words from Section 2(q) of the Protection of Women from Domestic Violence Act, 2005, which deals with respondents who can be sued and prosecuted under the Act for harassing a married woman in her matrimonial home.
- The court has ordered the deletion of the words "adult male" from the act. Thus, the order has paved the way for prosecution of women and even non-

adults for subjecting a woman relative to violence and harassment.

- The order allows a woman to seek legal action against her daughter-in-law and even her minor grandchildren for domestic violence. Earlier, only daughter-in-law could sue her husband and his women relatives. But a domestic violence complaint couldn't be filed against the daughter-in-law as the accused under the law could only be adult males.
- Why the court ordered deletion of the words "adult male" from the statute book
- According to the court, these words violated right to equality under the Constitution and are discriminatory. Also, the court observed that the microscopic difference between male and female, adult and non adult, regard being had to the object sought to be achieved by the 2005 Act, is neither real or substantial, nor does it have any rational relation to the object of the legislation.

Background:

The ruling came on an appeal filed against a judgment of the Bombay High Court in 2014 that had read down the Act to hold that complaints could be filed against the women too. The top court, however, set aside this judgment on the ground that the provision could not be read down.

The domestic violence act came into force in 2005 to protect women from physical, sexual, verbal, emotional and economic abuse at home. Under the act, an offender can be prevented from selling his house or businesses or both to ensure the victim is not left to fend for herself.

JANANISURAKSHAYOJANAPAYS DIVIDENDS: STUDY

A new study brings in first conclusive evidence of the role played by JananiSurakshaYojana (JSY) in reducing 'socioeconomic disparities' existing in maternal care.

- According to the study, JSY has led to an enhancement in the utilisation of health services among all groups especially among the poorer and underserved sections in the rural areas, thereby reducing the prevalent disparities in maternal care.

- Three key services of maternal care were used for the analysis: full antenatal care (full ANC), safe delivery, and postnatal care.

SIGNIFICANCE OF THESE FINDINGS:

The study was conducted using data from two rounds of the India Human Development Survey (IHDS) — conducted in 2004-05 and 2011-12. The IHDS data serves two advantages in this case.

- First, round 1 of IHDS was conducted in 2004-05 when the JSY was not in place and round two was conducted six years after the launch, providing a before-after scenario for comparison.
- Secondly, the IHDS is a longitudinal data set — same households were interviewed in both rounds, which allows to examine changes in maternal care patterns.

MAJOR FINDINGS:

- The increase in utilisation of all three maternal healthcare services between the two rounds was remarkably higher among illiterate or less educated and poor women.
- The usage of all three maternal healthcare services by the OBC, Dalit, Adivasis and Muslim women increased between the surveys.
- After the implementation of the JSY, there was generally a narrowing of the gap between the less educated and more educated women and between the poorer and richer women.
- It was found that women in their early twenties were more likely to avail of each of the three maternal health care services as compared to their older women. Also, the incidence of women availing maternal healthcare services decreases with the increase in the number of children they have delivered.
- The study notes that the gap in access to healthcare between the marginalised group of women and those who are financially better-off has declined since the advent of the JSY program. But, inequality in access to maternal care persists.

BACKGROUND:

High incidence of maternal mortality continue to plague India. As per the latest Lancet series on maternal health, India accounted for 15% of the total maternal deaths in the world in 2015 — second only to Nigeria — with 45,000 women dying during pregnancy or childbirth.

ABOUT JANANISURAKSHAYOJANA:

JananiSurakshaYojana (JSY) is a safe motherhood intervention under the National Rural Health Mission (NHM). It is being implemented with the objective of reducing maternal and neonatal mortality by promoting institutional delivery among poor pregnant women. The scheme is under implementation in all states and Union Territories (UTs), with a special focus on Low Performing States (LPS). JananiSurakshaYojana was launched in April 2005 by modifying the National Maternity Benefit Scheme (NMBS).

INDIA'S FIRST INTERNATIONAL ARBITRATION CENTRE

The Mumbai Centre for International Arbitration (MCIA), India's first international arbitration centre, was recently inaugurated in Mumbai.

- This is being seen as a major step towards making Mumbai an International Financial Services Centre (IFSC) and providing an arbitration platform for Indian business houses to negotiate commercial disputes.

Key facts:

- The MCIA will be an independent, not-for-profit organisation governed by a council comprising eminent national and international legal luminaries.
- It can resolve disputes between different companies or individual.
- It will have a 12-month timeline to complete arbitration seated in India and a prescribed fee structure as per the size of the disputed contract amount, which will enable both parties to know the cost of arbitral proceedings before they approach MCIA.

SIGNIFICANCE OF MCIA:

At present, most of the global business disputes involving Indians land in the Singapore or the London arbitration centres. The total outflow of funds to resolve such cases, complete with logistics and other related expenditure, works out to around \$ 5 billion, sources said. A centre in India can significantly bring down this cost.

BRICS Contingent Reserve Arrangement Operational

BRICS Contingent Reserve Arrangement has become operational. This arrangement is being seen as a crucial economic mechanism to help BRICS member nations – Brazil, Russia, India, China and South Africa – deal with economic crisis, like balance of payments pressures.

Background:

The Contingent Reserve Arrangement or CRA was declared operational, after being signed more than a year ago, in 2015.

What it does?

The BRICS CRA proposes to provide short-term liquidity support to the members through currency swaps to help mitigating BOP crisis situation, in case such a situation arises.

Benefits:

- The BRICS CRA will help India and other signatory countries to forestall short-term liquidity pressures, provide mutual support and further strengthen financial stability.
- It would also contribute to strengthening the global financial safety net and complement existing international arrangements (from IMF) as an additional line of defence.
- It will ensure equity and inclusiveness by providing a backup safety net arrangement in place that will allow the Government of India to go ahead with its necessary and bold policy decisions without being concerned about the international economic development that may lead to domestic imbalances and worsen BOP position. So far IMF support is

the primary safety net that is available to India in case any BOP crisis situation arises.

First Medipark in India

- Giving a push to local production of hi-end medical equipment, the government has given its nod to HLL Lifecare to sub-lease over 300 acres of land in Chennai to set up the country's first medical devices manufacturing park.
- The Medipark project will be the first manufacturing cluster in the medical technology sector in the country, envisaged to boost local manufacturing of hi-end products at a significantly lower cost, resulting in affordable healthcare delivery, particular in diagnostic services to a large section of people.
- The proposed Medipark would contribute to development of medical devices and technology sector and allied disciplines in the country, which is still at a nascent stage besides generating employment and give a boost to the government's "Make in India" campaign.
- The medipark will be developed in phases, spread over seven years for completion and in the first phase, physical infrastructure will be developed while the plots will be leased from the third year onwards.
- The project will also reduce the dependence on imports and create a strong base for the growth of indigenous and domestic industry by providing access to state-of-the-art infrastructure and technology.

CERC PANEL SUGGESTS OVERHAUL IN TRANSMISSION PLANNING

A committee appointed by the Central Electricity Regulatory Commission has suggested an overhaul in transmission planning to facilitate transfer of power on economic principles. The committee was headed by power system expert Mata Prasad.

Important suggestions made by the committee:

- Transmission planning should be aligned to meet customer aspirations as opposed to the existing

system where transmission is associated with long-term power purchase agreements (PPAs).

- According to the committee, transmission planning can be done on the basis of projected load of the states and anticipated generation scenario based on economic principles of merit order operation.
- In case of renewable energy sources, the transmission system may be planned by the central transmission utility (CTU) based on estimated capacity additions in perspective plan and renewable purchase obligations of each state.
- To promote the power market, the transmission corridor allocation should be suitably made. 5% of each flow gate may be reserved for day-ahead collective transactions, which may be released for the contingency market in case of non-utilisation of the corridor by power exchanges. The percentage of reservation may be reviewed after one year of operation.
- The committee has suggested system studies be carried out for various generation and load scenarios during peak and off-peak hours, considering renewable capacity addition and scheduling of various generating stations that don't have any PPAs.
- The committee has emphasised the need for the creation of a central repository of generators in the Central Electricity Authority of India (CEA), where any generation project developer proposing to set up a new generation plant must register itself. This will not only provide vital data for the transmission planning process but will alleviate problems due to uncoordinated generation additions.
- The committee has also made a strong case for hand-holding of states by CEA and CTU for accurate demand forecasting. It is also suggested that states procure software for short-term, medium-term and long-term demand forecasting.

NOBEL PRIZE IN ECONOMICS

Oliver Hart and Bengt Holmstrom have been awarded the Nobel Memorial Prize in Economic Science for their insights into how best to write contracts, the deals that

bind together employers and their workers, or companies and their customers.

What they won for?

Both the awardees have sought to determine how contracts can encourage mutually beneficial behaviour. Among the contracts they have studied is Holmstrom's research on employment contracts, including between CEOs and shareholders.

- Hart's research has looked at whether providers of public services, such as schools, hospitals, or prisons, should be publicly or privately owned. The research showed that "incentives for cost reduction are typically too strong". Privatizing those types of services can lead to a reduction in quality greater than the advantages of cost savings.
- Hart and his co-authors were particularly concerned about private prisons. Federal authorities in the United States are in fact ending the use of private prisons, partly because — according to a recently released U.S. Department of Justice report — conditions in privately-run prisons are worse than those in publicly-run prisons."

HIMANSH

It is India's Remote and High-Altitude research Station opened recently in Himalaya.

Key facts:

- It is Indian government's initiatives to better study and quantify the Himalayan glacier responses towards the climate change.
- It is located at a remote region in Spiti, Himachal Pradesh.
- It has been established by the National Centre for Antarctic and Ocean Research (NCAOR), Goa, under the Ministry of Earth Sciences.
- The station houses many instruments to quantify the glacier melting and its relation to changing climate. Some of the instruments that are available at this research facility include, Automatic Weather Stations for weather monitoring, water level recorder for

quantifying the glacier melt and ground penetrating radar to know the thickness of glaciers.

- The researchers would be using this as a base for undertaking surveys using Terrestrial Laser Scanners (TLS) and Unmanned Aerial Vehicles (UAV) that would digitize the glacier motion and snow cover variations with exceptional precision.

NCBC to consider proposal for Maratha quota if it comes

The National Commission for Backward Classes has said that it will consider giving reservation to Marathas if such a proposal comes to it.

Background:

Marathas, the politically-dominant community in Maharashtra, have been agitating for last few weeks raising various demands including quota in government jobs and education institutes.

Meanwhile, the state government is facing a legal challenge in defending the Act notified in March 2015 for a 16 quota in jobs and education entry to the Maratha community.

NCBC:

- National Commission for Backward Classes is statutory body established in August 1993, under the provisions of National Commission for Backward Classes Act, 1993.
- The commission was the outcome of the direction of the Supreme Court in the Mandal case judgement.
- The commission has five members: a Chairperson who is or has been a judge of the Supreme Court or of a High Court; a social scientist; two persons, who have special knowledge in matters relating to backward classes; and a Member-Secretary, who is or has been an officer of the Central Government in the rank of a Secretary to the Government of India. Their term is of Three years.
- The commission considers inclusions in and exclusions from the lists of communities notified as backward for the purpose of job reservations and

tenders the needful advice to the Central Government.

NASA'S 'ELECTRIC BANDAGE' TO SPEED UP WOUND HEALING

Nasa has developed a new high-tech material that uses electricity to significantly promote healing of injured wounds.

- The material, called polyvinylidene fluoride (PVDF) has numerous possible applications, including wound healing.

How it operates?

It is proven that wounds tend to heal much more quickly if small amounts of electricity are applied to the surrounding tissue. The new material generates a small amount of electricity when interacting with another surface, including human skin.

- If the PVDF fibres are aligned correctly, cells on a wound use it as a scaffold, helping the wound to heal faster. The easiest way to align the fibres is to make gauze which also creates an additional layer of protection against infection.
- The device can also be used by military personnel wounded in the field, patients who have undergone surgery and even those who have suffered a serious wound.

Who will regulate pension products?

- The Finance Ministry has set up a high-level committee to consolidate the regulation of pension products that is currently being done by three different watchdogs including the insurance and stock market regulators.
- The committee will be formed by the Department of Financial Services, would have representatives from all financial sector regulators — SEBI, IRDA, RBI and PFRDA.

NEED FOR CONSOLIDATION:

Pension product regulation is piecemeal in India. While the Pension Fund Regulatory and Development Authority (PFRDA) was set up with the intent of regulating all pension products, insurers and mutual funds continue to sell pension products outside its watch, creating confusion among consumers looking to build a retirement nest egg.

Currently, pension products floated by insurance companies come under the purview of the Insurance Regulatory and Development Authority (IRDA) while those sold by mutual funds are overseen by the SEBI.

WAYAHEAD:

The Centre has asked the committee to look into the issue of bringing all those companies which are offering pension plans under the purview of PFRDA.

PFRDA:

The Pension Fund Regulatory and Development Authority (PFRDA) is a pension regulatory authority which was established in 2003.

- It is authorized by Ministry of Finance, Department of Financial Services.
- It promotes old age income security by establishing, developing and regulating pension funds and protects the interests of subscribers to schemes of pension funds and related matters.
- It is also responsible for appointment of various intermediate agencies such as Central Record Keeping Agency (CRA), Pension Fund Managers, Custodian, NPS Trustee Bank, etc.

GLOBAL HUNGER INDEX

According to the latest Global Hunger Index data, hunger levels in developing countries may have fallen 29% since 2000, but India is still rated as a country with 'serious' hunger levels in the 2016.

Key facts:

- The report is released by the International Food Policy Research Institute (IFPRI).

- The hunger index ranks countries based on undernourishment, child mortality, child wasting (low weight for height) and child stunting (low height for age).
- The GHI ranks countries on a 100-point scale. Zero is the best score (no hunger), and 100 is the worst, although neither of these extremes is reached in practice.

Highlights of the report:

- It ranked India 97 among 118 countries, faring worse than all its neighbours China (29), Nepal (72), Myanmar (75), Sri Lanka (84) and Bangladesh (90), except for Pakistan (107) in measures of hunger.
- The report found that one in three children in India has stunted growth, whereas 15% of the country's population are undernourished. India's score is 28.5.
- Hunger levels are "alarming" in seven countries, with Central African Republic (CAR), Chad and Zambia experiencing the worst levels. Nearly half the population in CAR and Zambia and one in three people in Chad, are undernourished.
- The report also said that another 43 countries, including India, Nigeria and Indonesia, have "serious" hunger levels.
- At the current rate of decline, more than 45 countries – including India, Pakistan, Haiti, Yemen, and Afghanistan – will have "moderate" to "alarming" hunger scores in the year 2030.
- Sub-Saharan Africa has the highest hunger levels, followed closely by South Asia.

CENTRE EYES SOPS TO SPUR INTERNAL TRADE

The Centre is planning a three-pronged approach to revitalise India's retail and wholesale trade. This includes:

- Establishing a regulatory body for national internal trade (retail and wholesale).
- A comprehensive domestic trade policy.
- A Board for Internal Trade.

DETAILS:

- The new approach aims to generate employment and improve financial inclusion of small traders. It also aims to enhance ease of doing business in the country.
- It will also be linked to the NDA government's flagship initiatives such as Digital India, Skill India and Make In India.

BACKGROUND:

Currently there is no single regulatory body or ministry for domestic trade — comprising mainly non-corporate small businesses providing employment to an estimated 460 million people. Also, the current approach and the environment is considered only conducive for foreign retail giants and their Indian partners or counterparts

There are about six crore such enterprises in the country with an annual turnover of around Rs.30 lakh crore. About 70% of the country's retail trade has not been linked to computers and digitised.

DRAFT WATER BILL SUGGESTS BASIN-LEVEL MANAGEMENT

The Centre has come out with a draft National Water Framework Bill, 2016.

Aim of the Bill: It aims to resolve several inter-state disputes over river water sharing.

Highlights of the draft:

- The draft says that every person has a “right to sufficient quantity of safe water for life” within easy reach of the household regardless of caste, creed, religion, age, community, class, gender, disability, economic status, land ownership and place of residence.
- It provides for a mechanism to develop and manage river basin in an integrated manner so that every state gets “equitable” share of a river's water without violating rights of others.

- It pitches for establishing River Basin Authority for each inter-state basin to ensure “optimum and sustainable” development of rivers and valleys.
- It also devises an integrated approach to conserve water and manage groundwater in a sustainable manner.
- The draft Bill proposes establishing institutional arrangements at all levels within a state and beyond up to an inter-state river-basin level to “obviate” disputes through negotiations, conciliation or mediation before they become acute.
- It also says that each River Basin Authority will prepare a master plan for the river basin, under its jurisdiction, comprising such information as may be prescribed. The master plan, so prepared, will be reviewed and updated every five years after due consultation with all other planning agencies and stakeholders.

Key facts:

- Since water is a ‘state’ subject, the proposed legislation will not be binding on states for adoption even if it becomes a law through Parliament in due course.
- It will work as a model bill for the states, giving them a framework to come out with local laws to use and conserve water.

WAYAHEAD:

The draft Bill will go to the Union cabinet for its approval. Once it gets the required nod, the Union water resources ministry will introduce it in the Parliament.

SIT SET TO COMB P-NOTE DATA FOR BLACK MONEY

The special investigation team (SIT) on black money has asked the Securities and Exchange Board of India (Sebi) to furnish the details of all those investing through participatory notes (P-Notes).

- This is the first time the government-constituted body has sought such massive amount of data, which includes the list of beneficial owners and transfer

trials of investors taking the P-Note route to invest in domestic equity and debt markets.

Background:

The SIT wants to ensure that the regulatory changes made by Sebi are sufficient to curb misuse of tools, particularly with respect to end beneficiaries. The expert panel is concerned that the P-Note route could still be used by Indian companies to bring back unaccounted money.

- In May, Sebi tightened norms for P-Notes. It had increased KYC requirement, issued curbs on transferability and prescribed stringent reporting for P-Notes issuers and holders. It mandated issuers to follow anti-money laundering laws.
- The tightening of P-Note norms was triggered by the concerns raised by SIT in 2015, especially over the investment coming from Cayman Islands, the top destination for P-Note investors investing in the Indian securities market.

P-NOTES:

P-Notes are derivative products issued by FPIs in foreign markets which give their holders the right to have a share of the profit and loss from underlying Indian stocks but at the same time help maintain anonymity about the actual owners of those notes.

P-Notes allow foreign investors to take exposure to Indian stocks without registering with Sebi. These instruments are issued by foreign portfolio investors (FPIs) registered with Sebi.

India to promote indigenous expertise in cyber security, to fund start-ups

India is building its first platform for homegrown cyber security companies to promote indigenous expertise in the field and help local firms get a larger share of the country's digital security technology budget.

Key facts:

- In this regard, the government and industry have come together to prepare a road map to create a platform for digital and cyber security products and solution companies.

- This includes creating a special fund for cyber security start-ups to groom them to build local solutions to tackle internet security challenges.
- Data Security Council of India (DSCI) will collaborate with the Department of Electronics and Information Technology (DeITY) and the Technology Development Board of the Department of Science and Technology for the platform and funds.

NEED FOR INDIGENOUS EXPERTISE IN CYBER SECURITY:

India's cyber security market size is about \$4 billion (about Rs 26, 729.5 crore), which is expected to grow nine-fold to \$35 billion by 2025. According Nasscom data, there are about 150 cyber security companies in India. However, the security landscape in India still remains considerably untouched by investors.

Besides, in some ways, cyber attacks are 21st century plagues, and to stay secure, we need widespread immunity and awareness. India is not there yet.

REGIONAL AIR LINK SCHEME MAY USE E-AUCTION PATH

The civil aviation ministry is all set to start the bidding process of routes under the regional connectivity scheme (RCS) and it has sought the coal ministry's suggestions on e-auctioning in this regard.

Key facts:

- The government will unveil the final RCS policy soon after which it will invite bids from the airlines wanting to fly on regional routes.
- The Airports Authority of India (AAI), the nodal body entrusted to implement the ambitious scheme, has written to the coal ministry to share its experience on the modus operandi of the coal block e-auction process.
- The civil aviation ministry will do the bidding of the routes through state-owned Metal and Scrap Trading Corporation (MSTC) — the body which conducts the coal mine and iron ore auction.

BACKGROUND:

The Centre has proposed to cap fares at Rs 2,500 for a one-hour flight under the RCS. Airlines operating under the RCS will get viability gap funding and a host of other benefits such as lowers taxes and airport charges to promote regional connectivity.

The government has already notified setting up of a regional air connectivity fund for providing VGF to aircraft operators. The Centre will share 80% of the cost of VGF, while the states will contribute the remaining.

CABINET APPROVES REVISION OF ETHANOL PRICE

The Cabinet Committee on Economic Affairs has approved the mechanism for revision of ethanol price for supply to Public Sector Oil Marketing Companies (OMCs) to carry out the Ethanol Blended Petrol (EBP) Programme.

The new mechanism is as follows:

- For the next sugar season 2016-17 during ethanol supply period from 1st December, 2016 to 30th November, 2017, the administered price of ethanol for the EBP Programme will be Rs.39/- per litre.
- Additionally, charges will be paid to the ethanol suppliers as per actuals in case of Excise Duty and VAT/GST and transportation charges as decided by OMCs.
- If the need arises to increase/reduce the retail selling price of Petrol by Public Sector OMCs, then such increase/reduction would proportionately factor in the requirement of maintaining the fixed cost of purchase of ethanol during the ethanol supply year.
- The prices of ethanol will be reviewed and suitably revised by Government at any time during the ethanol supply period that is from 1st December, 2016 to 30th November, 2017 depending upon the prevailing economic situation and other relevant factors.

BACKGROUND:

Ethanol Blended Petrol (EBP) Programme was launched by the Government in 2003 which has been extended to the Notified 21 States and 4 Union Territories to promote

the use of alternative and environment friendly fuels. This intervention also sought to reduce import dependency for energy requirements.

- However, since 2006, OMCs were not able to receive offers for the required quantity of ethanol against the tenders floated by them due to various constraints like State Specific issues, Supplier related issues including Pricing issues of ethanol.
- In order to augment the supply of ethanol, a need was felt to put in place a new mechanism for pricing of ethanol. Accordingly, the Government in December, 2014 decided that the delivered price of ethanol at OMC depots would be fixed in the range of Rs. 48.50 per litre to 49.50 per litre including Central/State Government taxes and transportation charges.
- The decision has helped in significantly improving the supply of ethanol. Ethanol supplies increased to 67.4 crorelitres in 2014-15 and the projected supplies for ethanol supply year 2015-16 are around 120 crorelitres.

CABINET NOD FOR EXIM BANK'S MOU WITH NEW DEVELOPMENT BANK

The Union Cabinet has given its nod to Exim Bank of India for entering into a Memorandum of Understanding (MoU) on general cooperation with the New Development Bank (NDB), a multilateral development bank established by the BRICS nations.

Key facts:

- This MoU will be signed through the BRICS Interbank Cooperation Mechanism, which was established by five banks from the BRICS nations to enhance trade and economic relations among the BRICS countries and enterprises.
- The MoU is a non-binding umbrella agreement aimed at establishing a cooperation framework in accordance with the national laws and regulations, besides skills transfer and knowledge sharing amongst the signatories.
- The proposal will enhance trade and economic relations among the BRICS countries. There is no

financial implication involved with signing of the MoU. The participating institutions from the BRICS nations will be benefitted by this MoU.

Background:

The establishment of the NDB — in July 2014 — reflects the close relations among the BRICS countries and provides a powerful instrument for increasing their economic cooperation and help India play an enhanced international role.

About EXIM bank:

Export–Import Bank of India was established in 1982 under the Export-Import Bank of India Act 1981. Since its inception, Exim Bank of India has been both a catalyst and a key player in the promotion of cross border trade and investment. Over the period, it has evolved into an institution that plays a major role in partnering Indian industries, particularly the Small and Medium Enterprises, in their globalisation efforts, through a wide range of products and services offered at all stages of the business cycle, starting from import of technology and export product development to export production, export marketing, pre-shipment and post-shipment and overseas investment.

INDIA TO ELIMINATE USE OF HFC-23 BY 2030

Taking the lead on tackling climate change, India has announced that it will eliminate the use of HFC-23, a greenhouse gas that harms the ozone layer, by 2030.

Background:

The announcement came at a meeting of parties to the Montreal Protocol at Kigali in Rwanda where final negotiations are taking place to substantially reduce the use of HFCs (hydrofluorocarbons) by 2030. The Montreal Protocol, which came into force in 1989, is aimed at reducing the production and consumption of ozone depleting substances in order to protect the earth's fragile ozone layer.

Key facts:

- As per Delhi-based think tank Centre for Science and Environment, the move will potentially check

emissions of HFC-23 equivalent to 100 million tonnes of CO₂ over the next 15 years.

- Companies have been asked to internalize the cost of this environmental externality and create sufficient storage facility to take care of down time and run the incinerators to ensure that HFC-23 is not released in the atmosphere.
- With this domestic legislation to control the emissions of HFC-23, India is also sending a strong signal to the world that it is serious about the climate change issue.

ABOUT HFC 23:

HFC-23 is a potent greenhouse gas with global warming potential of 14,800 times more than that of CO₂. It is a by-product of HCFC-22, which is used in industrial refrigeration.

SC SAYS JAILS ARE OVERCROWDED BY 150 %, LAMENTS PLIGHT OF INMATES

The Supreme Court has expressed concern over the pathetic condition of jails in the country. The court has also blamed Delhi and other state governments for paying “little or no attention” to the fundamental rights of under trials and convicts.

Key facts:

- According to official data, two of every three persons incarcerated in India have not yet been convicted of any crime.
- The number of convicts in jails grew by 1.4% from 2012 to 2013, but the number of undertrials shot up by 9.3% during the period.
- Men make up more than 90% of all prison inmates. Nearly 2,000 children of women inmates live behind bars, 80% of those women being undertrials.
- Undertrials are younger than convicts — nearly half are under the age of 30 and over 70% have not completed school.

Important observations made by the court:

- The court, in a judgment on a suomotu Public Interest Litigation (PIL), observed that prisons are crammed with inmates by over one and a half times the permissible limit.
- The judgment also observed that “Fundamental rights and human rights of people, however they may be placed, cannot be ignored only because of their adverse circumstances.”
- The court also said that that it was “unfortunate that in spite of directions by the Court, the prison authorities have not been able to take any effective steps for reducing overcrowding in jails”.

Background:

Authorities have defied repeated orders of the Supreme Court to draw a “viable” plan of action to de-congest jails. Instead, prison authorities have banked on ad hoc proposals like the construction of additional barracks or jails, and these proposals have no time limits for implementation.

The Ministry of Women and Child Development is yet to frame a Manual for Juveniles in Custody under the recently amended Juvenile Justice (Care and Protection of Children) Act, 2015.

WAYAHEAD:

The court has ordered the Ministry of Home Affairs to receive and collate plans of action for de-congesting jails from the various States and Union Territories in the next six months. Moreover, the SC directed the government to prepare a viable Plan of Action within the next six months and hand it over to the apex court by March 31, 2017.

IIM AT JAMMU:

- The Union Cabinet has approved the establishment and operationalisation of Indian Institute of Management (IIM) at Jammu.
- The Cabinet also approved formation of an IIM Jammu Society under the Societies Registration Act, 1860.

- IIM Jammu will be run and managed by the Society with a Board of Governors (BOGs) to be constituted by the Government of India, which will administer the Institute and would be responsible for establishment and operationalisation of the Institute.
- At present, there are nineteen IIMs.

NOBEL PRIZE FOR LITERATURE:

- The American singer songwriter Bob Dylan has won the 2016 Nobel prize for literature.
- He is the first musician to win the award.

CENTRE PLANS TO REVIVE COUNTER-TERROR BODY

The Centre is planning to revive the National Counter Terrorism Centre (NCTC), a project conceived by the UPA government in 2012.

WHAT NEXT?

The government is planning to rework the NCTC proposal to allay the fears of State governments that their intelligence gathering mechanism would be encroached upon by the Centre.

What was proposed?

It was after the 26/11 Mumbai terror attack that the then Home Minister suggested setting up of the National Counter Terrorism Centre (NCTC), on the lines of the one in the United States and the British Joint Terrorism Analysis Centre, for coordinated counter-terror operations. However, concerned that such an agency could well be abused by the Centre for political ends, many Chief Ministers struck down the idea primarily because the unit was to function under the Intelligence Bureau and, unlike the U.S. agency, it would be empowered to conduct searches and arrests under Sections 43 and 43A of the Unlawful Activities Prevention Act.

KEY FACTS:

- It has the power to conduct searches and arrests in any part of India.

- The NCTC, to be located within the Intelligence Bureau, will carry out counter-terror operations and collect, collate and disseminate data on terrorism.
- The agency will also maintain a data base on terrorist and their associates including their families.
- The NCTC will also formulate a response to terror threats. It is meant to serve as a single and effective point of control and coordination of all counter terrorism measures.
- It will also have the mandate to carry out anti-terror operations, if any, through, or in conjunction with, the State police.

INDIA, RUSSIA TO SET UP AGRO IRRADIATION CENTRES

India and Russia have signed a pact to set up 25 integrated infrastructure centers for irradiation treatment of perishable food items to improve shelf life and cut post-harvest losses.

Key facts:

- At least 7 centers will be set up in Maharashtra, with the first centre near Shirdi to be ready next year.
- Perishable items ranging from flowers to fish will be treated there on a commercial scale.
- The agreement was signed between Russia's United Innovation Corporation (UIC) — a subsidiary of Rosatom State Atomic Energy Corporation — and Hindustan Agro Co-op Ltd on the sidelines of the BRICS Business Forum.
- As part of the agreement, a JV will be formed for this purpose.
- These irradiation centres will use the technology and technical solution based on gamma-facility and/or electron accelerator.

Background:

In irradiation, food products are subjected to a low dosage of radiation to treat them for germs and insects, increasing their longevity and shelf life.

Radiation treatment is carried out in dosage recommended by the International Atomic Energy Agency (IAEA) and it neither reduces the nutritional value of food nor spoils their taste and appearance.

How this will help India?

In India, according to estimates, post-harvest losses in food and food grains are around 40-50%, primarily due to insect infestation, microbiological contamination, physiological changes due to sprouting and ripening, and poor shelf life.

- The wastage of fruits and vegetables alone is about Rs. 60,000 crore annually. Including cereals, meat, pulses and flowers, the annual loss is estimated to be Rs. 2,50,000 crores. Besides, there are a few low level irradiation plants in the country, which are not adequate.
- With the proposed centres, it is possible to reduce these losses.

SMALLER PARTIES, INDEPENDENTS IN RAJYA SABHA UNITE FOR MORE TALK TIME

- Vice-President Hamid Ansari has formally recognised a group of 22 MPs belonging to parties with less than four MPs and certain independents as a consolidated block — the United Group.
- This is only the third time in the history of Indian Parliament that this is happening, the first was in 1983, and the second in 1990.

WHAT WAS THE NEED FOR IT?

Hailing from ideologically diverse backgrounds and including nominated MPs, this group of MPs have united to secure more time to speak in House debates, where their solitary or numerically lean status afforded them as little as three minutes of speech time.

SIGNIFICANCE OF THIS MOVE:

Smaller parties and independent MPs who may want to contribute to debates rarely get enough time to put forward a cogent argument. But, with this grouping, now such MPs form the third largest group in the Rajya Sabha,

after the Congress and the BJP. Now, they also will find a place in the Business Advisory Committee (BAC) that decides time allotment.

Time allotted to parties to speak on debates depends entirely on their strength in the House. A grouping of this kind will, therefore, make it possible to speak for.

SELF-POWERED UV PHOTODETECTOR CHARGES ENERGY STORAGE DEVICES

Researchers from the Indian Institute of Science (IISc), Bangalore, have developed a cost-effective, high-performance, self-powered UV photodetector that can use the harvested optical energy for direct self-charging of energy storage devices such as supercapacitor.

How was it developed?

The researchers developed the photodetector by integrating semiconducting vanadium doped zinc oxide (VZnO) nanoflakes with a conducting polymer.

- Zinc oxide (ZnO), the base material for UV detection, can be doped with vanadium to produce photodetectors that are self-powered. When doped with vanadium, the microstructure of ZnO changes from nanorods to closely-packed nanoflakes, causing an increase in the surface area to the volume of the material.
- The nanoflakes are 80% more porous than nanorods. The UV light that gets into the pores undergoes multiple reflections and finally gets absorbed.
- The VZnOnanoflakes are further annealed (heated and allowed to cool slowly) in the presence of hydrogen gas at 350 degree C (hydrogenated) to increase the conductivity and reduce the recombination of photo-generated charge carriers.

Key facts:

- The vanadium-doped zinc oxide nanoflake structure has 98% light-harvesting efficiency, which is much higher than the 84% seen in zinc oxide nanorods.
- The photodetector has superior performance in terms of faster detection of photo signals in the order of milliseconds even when UV light intensity is low.

- It can be used for operating electronic devices in the absence of external power source.

Vice-President Hamid Ansari is visiting Hungary and Algeria:

- The Hungary visit should serve to underline and acknowledge the support and understanding that India has extended to that country over a long time.
- In the case of Algeria, which has rich oil, gas and phosphatic resources, India sees this visit as an opportunity to kindle interest in cooperative ventures. Collaboration in the field of space missions is also on the horizon.
- Hungary is a parliamentary constitutional republic in Central Europe. It is situated in the Carpathian Basin and is bordered by Slovakia to the north, Romania to the east, Serbia to the south, Croatia to the southwest, Slovenia to the west, Austria to the northwest, and Ukraine to the northeast. The country's capital and largest city is Budapest. It is a member of the European Union, NATO, the OECD and the Schengen Area.
- Algeria is a sovereign state in North Africa on the Mediterranean coast. It is the largest country in Africa. Algeria is bordered to the northeast by Tunisia, to the east by Libya, to the west by Morocco, to the southwest by the Western Saharan territory, Mauritania, and Mali, to the southeast by Niger, and to the north by the Mediterranean Sea. The country is a semi-presidential republic.

NEW SECRETARY-GENERAL OF UN:

- The United Nations General Assembly (UNGA) has formally elected **Antonio Guterres** as the new Secretary-General of the United Nations.
- He will serve for five years starting from January 1, 2017.
- The UN Secretary-General is the head of the United Nations Secretariat and is de facto spokesperson and leader of the UN.

REPORT ON PALAEO CHANNEL OF NORTH WEST INDIA

The government has released a Report on Palaeo Channel of North West India.

What are Palaeochannels?

They are remnant of once active rivers/streams or in other words, are paths abandoned by rivers when they change their course either due to movement of tectonic plates or severe floods and cut new ones. Some of the palaeochannels lie buried under younger sediments.

Key facts:

- The report has been prepared by an expert committee headed by Prof. K.S. Valdiya, eminent Geologist.
- This report is based on the study of the land texture of states of North-West India including- Rajasthan, Haryana and Punjab.
- The committee has taken account of the geological changes that had occurred in the past while preparing the report.
- During its six-month research period, the committee studied piles of sediments, their shapes and features which appeared to have been brought by a “big river” and are reminiscent to ones found in present-day Ghaggar, Ganga and Yamuna.

SIGNIFICANCE OF THIS REPORT:

The report is an assertion of the assumption that River Saraswati originated from Adibadri in Himalaya to culminate in the Arabian Sea through the Runn of Kutch. This river was once upon a time the lifeline of the north-western states of India and a vibrant series of civilizations from Mahabharat period to Harappa had flourished on the banks of this river.

IMPORTANT OBSERVATIONS MADE BY THE REPORT:

- Saraswati river passed through Haryana, Rajasthan and North Gujarat. It also passed through Pakistan before meeting Western Sea through Rann of Kutch and was approximately 4,000 km in length.

- One-third of the river stretch fell in present-day Pakistan. The longer, two-third stretch measuring nearly 3000 km in length fell in India.
- The river had two branches: western and eastern. The Himalayan-born Satluj “of the PAST”, which flowed through the channels of present-day Ghaggar-Patialwali rivulets, represents the western branch of the ancient river.
- On the other hand, Markanda and Sarsuti represented the western branch of Saraswati, known as Tons-Yamuna.
- The confluence of the branches was near Shatrana, 25 km south of Patiala. And suddenly, it flows crossing the dessert (Rann of Kutch) and meet gulf of western sea.

SUGGESTIONS MADE BY THE COMMITTEE:

- The committee has recommended that the government legislate a law to regulate extraction of water from palaeochannels in view of low rainfall in dry stretches and “reckless” exploitation of freshwater for irrigation and other purposes.
- The panel suggested that it develop systematic database of all surface maps of palaeochannels and sub-surface stratigraphic data including geophysical surveys, borehole data, chemical quality and isotopic composition of groundwater in and around palaeochannel.
- It also proposed launching of a mission to facilitate accurate estimation of groundwater reserves.
- Among other, the committee has urged the government to make recharging as many “well-identified” palaeochannels as possible its “top priority”.

Way ahead:

The report will be studied by the Central Ground Water Board as well as the Experts in various ministries for its optimum use. Then, the report will be submitted before the Cabinet for further action.

MINING SURVEILLANCE SYSTEM

The government has launched the Mining Surveillance System (MSS). It uses space technology for curbing illegal mining activity in the country.

What is it?

MSS is a satellite-based monitoring system which aims to establish a regime of responsive mineral administration, through public participation, by curbing instances of illegal mining activity through automatic remote sensing detection technology.

Who developed it?

Ministry of Mines, through Indian Bureau of Mines (IBM), has developed the MSS, in coordination with Bhaskaracharya Institute for Space Applications and Geo-informatics (BISAG), Gandhinagar and Ministry of Electronics and Information Technology (MEITY).

Significance of MSS:

Developed under the Digital India Programme, MSS is one of the first such surveillance systems developed in the world using space technology. The current system of monitoring of illegal mining activity is based on local complaints and unconfirmed information. There is no robust mechanism to monitor the action taken on such complaints.

How it operates?

In the MSS the maps of the mining leases have been geo-referenced. The geo-referenced mining leases are superimposed on the latest satellite remote sensing scenes obtained from CARTOSAT & USGS.

- The system checks a region of 500 meters around the existing mining lease boundary to search for any unusual activity which is likely to be illegal mining. Any discrepancy if found is flagged-off as a trigger.
- Automatic software leveraging image processing technology will generate automatic triggers of unauthorized activities. These triggers will be studied at a Remote Sensing Control Centre of IBM and then transmitted to the district level mining officials

for field verification. A check for illegality in operation is conducted and reported back using a mobile app.

- A user-friendly mobile app has been created which can be used by these officials to submit compliance reports of their inspections. The mobile app also aims to establish a participative monitoring system where the citizens also can use this app and report unusual mining activity.

NATIONAL SUMMIT ON FORTIFICATION OF FOOD

The **National Summit on Fortification of Food** to address interventions in combating micronutrient malnutrition in the country was recently inaugurated.

Key facts:

- Food Safety and Standards Authority of India (FSSAI) is co-hosting the two day Summit in partnership with related central ministries / departments and development partners.
- The Summit will bring together experts from the nutrition and development communities as well as representatives from state governments, academics, technical supporters and donors to beneficiaries past and present.
- It provides a platform to discuss and debate – presenting in-depth analysis and impact assessments, important and case study examples of food fortification programs as well as learnings and challenges to build on so effective food fortification efforts can carry on delivering in the future.
- There will be a number of themes including the roles of industry, government, academia and civil society; improving compliance and measurement; cost-benefit analysis; modelling potential for impact and the required investments.

Background:

Food fortification or enrichment is the process of adding micronutrients (essential trace elements and vitamins) to food. Food fortification is a proven and effective strategy to meet the nutritional needs of a large number of people across various sections of the society, including the poor

and underprivileged as well as the vulnerable, such as pregnant women and young children.

Fortification requires neither changes in existing food patterns, habits nor individual compliance. It is socio-culturally acceptable and does not alter the characteristics of the food. It can be introduced quickly and can produce nutritional benefits for populations in a short period of time. It is safe and cost effective, especially if advantage is taken of the existing technology and delivery platforms.

Food fortification reinforces and supports existing nutrition improvement programmes and is part of a broader, integrated approach to prevent micronutrient deficiencies, thereby complementing other approaches to improve health and nutrition.

Food fortification in India:

Food Safety and Standards Authority of India (FSSAI) has formulated a comprehensive regulation on fortification of foods namely 'Food Safety and Standards (Fortification of Foods) Regulations, 2016'. These regulations set the standards for food fortification and encourage the production, manufacture, distribution, sale and consumption of fortified foods. The regulations also provide for specific role of FSSAI in promotion for food fortification and to make fortification mandatory. This sets the premise for the national summit on fortification of food.

Kigali makes history with HFC freeze

197 countries have struck a new landmark deal at Kigali in Rwanda to reduce the emissions of greenhouse gases, hydrofluorocarbons (HFCs), which could prevent up to 0.5 degrees Celsius of global warming by year 2100.

Highlights:

- The announcement came at Kigali where 197 countries that are party to the **Montreal Protocol** were trying to negotiate a deal to substantially reduce the use of HFCs by 2030.
- The **Kigali Amendment to the Montreal Protocol is legally binding.**

- The agreement at Kigali came after seven years of negotiations under which the 197 Montreal Protocol parties reached a compromise wherein developed countries will start to phase down HFCs by 2019.
- Developing countries will follow with a freeze of HFCs consumption levels in 2024, with some countries freezing consumption in 2028. By the late 2040s, all countries are expected to consume no more than 15-20% of their respective baselines. Overall, the agreement is expected to reduce HFC use by 85% by 2045.
- As per the agreement, China, which is the largest producer of HFCs in the world, will reduce HFC use by 80% by 2045 over the 2020-22 baseline. India will reduce the use of HFCs by 85% over the 2024-26 baseline.
- The countries negotiating at Kigali also agreed to provide adequate financing for HFCs reduction—which runs in billions of dollars globally. The exact amount of additional funding will be agreed at the next meeting of the Parties in Montreal, in 2017.
- The amendment will enter into force on 1 January, 2019, provided that at least 20 instruments of ratification, acceptance or approval of the Amendment have been deposited by states or regional economic integration organisations that are parties to the Montreal Protocol on substances that Deplete the Ozone Layer.

WHAT IS THE MONTREAL PROTOCOL?

The Montreal Protocol on Substances that deplete the Ozone Layer is a landmark international agreement designed to protect the stratospheric ozone layer. The treaty was originally signed in 1987 and substantially amended in 1990 and 1992.

The Montreal Protocol, which came into force in 1989, is aimed at reducing the production and consumption of ozone depleting substances in order to protect the earth's fragile ozone layer.

Background:

Commonly used in refrigeration and air conditioning as substitutes for ozone-depleting substances, HFCs are currently the world's fastest growing greenhouse gases, their emissions increasing by up to 10% each year. They are also one of the most powerful, trapping thousands of times more heat in the Earth's atmosphere than carbon dioxide (CO₂).

Growth of HFCs has mainly been driven by a growing demand for cooling, particularly in developing countries with a fast-expanding middle class and hot climates.

BRICS MEET DECLARATION PLEDGES TO FIGHT TERROR

The 8th BRICS summit has ended with the adoption of the **Goa Declaration**.

The **theme for the summit was "Building Responsive, Inclusive and Collective Solutions"**.

Key highlights of the Goa declaration:

- The Declaration urged the dismantling of terror bases and said nations should adopt a comprehensive approach that includes tackling radicalisation, recruitment, cutting off terror funding systems and address terrorism on the internet and social media. The declaration mention ISIS, Al Qaeda and JubhatulNusra.
- The declaration calls for a "holistic approach" and says all counter-terrorism measures should "uphold international law and respect human rights".
- The declaration also emphasized the need for adaptation of Comprehensive Convention on International Terrorism (CCIT) in the UN General Assembly and the urgent need to reform the United Nations, including UN Security Council, to increase representation of developing countries.
- It also expressed its confidence in resolving international problems that require collective efforts for peaceful settlement of disputes through political and diplomatic means.

- The declaration also condemned unilateral military interventions and economic sanctions in violation of international law and universally recognised norms of international relations.
- Concerns about the situation in the Middle East and North Africa were also expressed. BRICS countries have expressed their support for finding ways to the settlement of the crises in accordance with international law and in conformity with the principles of independence, territorial integrity and sovereignty of the countries of the region.

BRICS U-17:

- Brazil has lifted the 1st BRICS U-17 Football Tournament 2016. In the Finals they defeated South Africa 5-1.
- India hosted the first BRICS U-17 Football Tournament. It was held in Goa.
- The tournament was played among the 'BRICS' countries Brazil, Russia, India, China and South Africa.

S-400 MISSILE SYSTEMS:

- India and Russia have signed a deal on S-400 missile systems, a game-changer in countering airborne threats.
- Designed by the Almaz-Antey Central Design Bureau, the S-400 Triumf, referred to as SA-21 Growler by NATO, is considered one of the most advanced long-range defence systems in the world.
- It can tackle all airborne targets at a range of up to 400 km. The system has 8 launchers, a control centre, a powerful radar and 16 missiles that are available for reload.
- The system is capable of firing three types of missiles, hence creating a layered defence for any country that owns it.
- The S-400 would help check short and medium range ballistic missile threats.
- India is the second purchaser of this system after China, which had struck a deal with Russia for S-

400 last year.

Kamov:

- India and Russia have signed a deal to jointly produce 200 Kamov Ka-226T helicopters, at the India Russia Summit in Goa. The helicopters are believed to boost the capabilities of the armed forces.
- Kamov 226T will replace the ageing Cheetah and Chetak choppers.
- Kamov is a small, twin engine Russian utility helicopter. It is manufactured by Russian Helicopters.
- This light multipurpose helicopter has a maximum takeoff weight of 3.6 tons. It can carry up to one ton payload. It has a maximum speed 220 Km/hr.
- The machine has excellent maneuverability and handling, easy maintenance.

Manned mission by China:

- China has successfully launched longest-ever manned mission by taking two astronauts into the orbit. They were launched on board of Shenzhou-11 spacecraft.
- The spacecraft was put into orbit by a Long March-2F carrier rocket.
- Both astronauts will spend a month aboard an experimental space laboratory Tiangong-2.
- During the mission, they will conduct aerospace medical experiments, space science experiments and in-orbit maintenance with human participation. They will also undertake ultrasound tests during space travel for the first time and cultivate plants in space.

SAGARMALA FUNDS FLAGSHIP PROJECT OF RO PAX FERRY SERVICE IN GULF OF CAMBAY, GUJARAT

As part of promoting coastal shipping in the country under Sagarmalaprogramme, the Ministry of Shipping has sanctioned the Capital Dredging Project for Ro Pax Ferry Services between Gogha&Dahej, in Gulf of Cambay in Gujarat.

- The Ministry has released Rs 58.50 Crore as first installment of grant-in-aid to Gujarat Maritime Board (GMB). The total project cost is estimated to be Rs 234 Crore and of which 50% will be funded by Centre Government under the Sagarmalaprogramme.

Significance of this project:

- The project would result in reduction in motorable distance of 231 kms between Gogha&Dahej to mere 31 kms and reduce the travel time from 7 hours to 1 hour only by crossing the Gulf in Cambay in 17 Nautical Miles.
- The initiative would not only reduce the travel time but also result in savings in fuel, reduction in CO2 emission and reduction in road congestion.
- The project is first of its kinds in India as it will be executed in the area of world's 2nd highest tidal range.
- The project would open up new avenues in coastal shipping & tourism and help in socio-economic development of proximate areas. It would also help in utilisation of inland waterways through River Narmada for shipping goods from industries located upstream.

Sagarmala Initiative:

- The Sagarmala project seeks to develop a string of ports around India's coast. The objective of this initiative is to promote "Port-led development" along India's 7500 km long coastline.
- It aims to develop access to new development regions with intermodal solutions and promotion of the optimum modal split, enhanced connectivity with main economic centres and beyond through expansion of rail, inland water, coastal and road services.
- The Union Ministry of Shipping has been appointed as the nodal ministry for this initiative.
- The Sagarmala initiative will address challenges by focusing on three pillars of development, namely:

- Supporting and enabling Port-led Development through appropriate policy and institutional interventions and providing for an institutional framework for ensuring inter-agency and ministries/ departments/states' collaboration for integrated development.
- Port Infrastructure Enhancement, including modernization and setting up of new ports.
- Efficient Evacuation to and from hinterland.

BIMSTEC WAXES AS SAARC WANES

India has declared its commitment to play an asymmetric role in energising BIMSTEC. Meanwhile, the BIMSTEC countries, endorsing the Indian stand without naming Pakistan, have slammed states which “support and finance terrorism, provide sanctuary to terrorists and terror groups” in BIMSTEC Leaders’ Retreat 2016 Outcome Document issued recently.

Background:

The leaders of seven-member BIMSTEC (The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) recently met in Goa for an outreach meeting with BRICS (Brazil, Russia, India, China and South Africa).

Highlights:

- The BIMSTEC also said “there should be no glorification of terrorists as martyrs” — a clear reference to Hizbul militant BurhanWani who was killed by security forces in Kashmir in July and later hailed as a “martyr” by Pakistan.
- The BIMSTEC document also strongly condemned the “recent barbaric terror attacks in the region” — a reference to attacks in Uri and Dhaka.
- BIMSTEC countries have also agreed reiterated their strong commitment to combat terrorism in all its forms and manifestations, and stress that there can be no justification for acts of terror on any grounds whatsoever.
- Additionally, BIMSTEC leaders have expressed their commitment to expedite the signing of the

BIMSTEC Convention on Mutual Assistance in Criminal Matters, and early ratification of the BIMSTEC Convention on Cooperation in Combating International Terrorism, Transnational Organised Crime and Illicit Drug Trafficking.

ABOUT BIMSTEC:

- The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organization involving a group of countries in South Asia and South East Asia.
- The BIMSTEC comprises of seven countries, Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand.
- The main objective of BIMSTEC is technological and economical cooperation among South Asian and South East Asian countries along the coast of the Bay of Bengal.
- The headquarters of BIMSTEC is in Dhaka.

WHAT THIS GROUPING MEANS IN NUMBERS

The BIMSTEC region is home to around 1.5 billion people which constitute around 22% of the global population. The region has a combined gross domestic product (GDP) of \$2.7 trillion. In the last five years, BIMSTEC member states have been able to sustain an average 6.5% economic growth trajectory despite global financial meltdown.

WHAT IS INDIA’S INTEREST IN THE GROUPING?

The BIMSTEC is a bridge between South Asia and Southeast Asia. The two Southeast Asian countries in the grouping, Myanmar and Thailand, have a crucial place for India’s ambitious connectivity plans for northeastern region. Myanmar is only Southeast Asian country India has a land boundary with. An India-Myanmar-Thailand highway is one of the key projects that figures in a big way in the government’s Act East (earlier Look East) policy. With the India-Pakistan bickering coming in way of a smooth functioning of the Saarc, groupings such as BIMSTEC can take forward the concept of regional cooperation in a different manner.

Now, India has a nuclear triad

- India has quietly completed its nuclear triad by inducting the indigenously built strategic nuclear submarine INS Arihant into service.
- With this India joins the select group of countries which have a nuclear triad, i.e. capable of delivering nuclear weapons by aircraft, ballistic missiles and submarine launched missiles.

Key facts:

- Arihant is capable of carrying nuclear tipped ballistic missiles, the class referred to as Ship Submersible Ballistic Nuclear (SSBN). SSBNs are designed to prowl the deep ocean waters carrying nuclear weapons and provide a nation with an assured second strike capability — the capability to strike back after being hit by nuclear weapons first.
- The vessel weighing 6000 tonnes is powered by a 83 MW pressurised light water nuclear reactor.
- It will be armed with the K-15 Sagarika missiles with a range of 750 km and eventually with the much longer range K-4 missiles being developed by the Defence Research and Development Organisation.

WHAT DOES THIS MEAN FOR THE WORLD?

India's deployment of a nuclear-armed submarine could put the nation into a naval arms race with regional powers, potentially prompting China to assist its nuclear-armed allies Pakistan and North Korea in developing similar technologies.

Both India and China subscribe to a No First-Use policy on nuclear weapons. They regard nuclear-armed submarines as a deterrence aimed at preventing the outbreak of war.

The Arihant is harder to detect than India's nuclear weapons platforms on land and in the air, giving it a "second-strike" capability. This would allow India to retaliate against an enemy who managed to destroy the rest of its nuclear arsenal in a first-strike.

WHICH OTHER COUNTRIES HAVE NUCLEAR-ARMED SUBMARINES?

The UK, USA, France, Russia and China already have nuclear-armed submarines.

India, Algeria mull fertilizer JV

India is keen to join hands with Algeria to explore the possibilities of setting up a multi-billion dollar fertilizer project, bearing in mind the phosphatic reserve available in this North African country which is estimated to be more than 5 billion tonnes. A meeting in this regard was also recently held between the two countries.

Background:

The estimated phosphate reserve in Algeria is estimated to be more than 5 billion tonnes and possible Indian investment in the sector is expected to be \$5 to 7 billion.

Implications of this move:

Around 90 to 95% phosphate being used by Indian fertilizer companies is imported and the production cost is also very high. The price of fertilizer in India is expected to come down along with the subsidy burden if the talks between the two countries lead to setting up of a joint venture mega fertilizer company in Algiers.

India currently imports raw phosphate resources from a number of African countries including Tunisia, Jordan, Egypt and Syria, as also from Russia, Canada and Israel among others.

Key facts:

- Indian fertilizer industry is producing about 12.28 million tonnes of nitrogen and 4.37 million tonnes of phosphatic nutrient production.
- India ranks second in the production of nitrogenous fertilizers and third in phosphatic fertilizers.
- According to a report of department of fertilizers, by 2016-17, fertilizer demand in the country is projected to increase to about 336.77 lakh tonnes of urea, 124.13 lakh tonnes of DAP, 59.48 lakh tonnes of SSP and 47.93 lakh tonnes of MOP.

KWDT-II VERDICT DISAPPOINTS AP, TS

The Krishna Water Disputes Tribunal II headed by Justice Brijesh Kumar has decided to confine the reallocation of Krishna water between Andhra Pradesh and Telangana.

Key facts:

- In its recent verdict delivered, the KWDT-II decided to maintain status quo on the allocation made to upper riparian States Maharashtra and Karnataka and take up further action on distribution of water to Telangana and Andhra Pradesh out of the allocation made to the erstwhile united State.
- The verdict would mean that the project specific allocations and other operational protocols would be confined to the two States much against their demand that allocations be made afresh among the four riparian States.

Background:

- Andhra Pradesh and Telangana had submitted pleas on the need to reallocate water among the four States consequent on the bifurcation of the erstwhile AP.
- They contended that the allocation in 2013 was made before the enactment of the AP Reorganisation Act and that even Parliament had given its endorsement for reconsideration of the allocations made before bifurcation.
- The two States had argued that Section 89 in the AP Reorganisation Act 2014 was implicitly incorporated to ensure reallocation among all the riparian States.

KRISHNA WATER DISPUTES TRIBUNAL (KWDT):

Krishna Water Disputes Tribunal (KWDT) was set up under Inter-State River Water Disputes Act, 1956 to adjudicate upon the water dispute regarding the Inter-State river Krishna and the river valley thereof.

The tribunal gave its award in 1973. While the Tribunal had in its earlier report detailed two schemes, Scheme A

and Scheme B, the final award only included Scheme A and Scheme B was left out. Scheme A pertained to the division of the available waters based on 75% dependability, while Scheme B recommended ways to share the surplus waters.

The KWDT in its award outlined the exact share of each state. The award contended based on 75% dependability that the total quantum of water available for distribution was 2060TMC. This was divided between the three states in the following manner.

- Maharashtra 560 TMC.
- Karnataka 700 TMC.
- Andhra Pradesh 800 TMC.

REVIEW OF THE AWARD:

The tribunal in its first award provided for a review of its award after 31 May 2000. However no such review was taken up for more than 3 years after that.

- In April 2004, the second KWDT, was constituted by the Government of India following requests by all three states.
- The second Krishna Water Dispute Tribunal gave its draft verdict on 31 December 2010. The allocation of available water was done according to 65% dependability, considering the records of flow of water for past 47 years.
- According to KWDT II, Andhra Pradesh got 1001 TMC of water, Karnataka 907 TMC and Maharashtra 666 TMC. Next review of water allocations will be after the year 2050.

GREEN TRAIN CORRIDORS

The Indian Railways has declared the Okha-Kanalus (141 Kms) and Porbandar-Wansjaliya (34 Kms) sections of Gujarat in Western Railway as the Green Train Corridors.

What are Green train corridors?

Green Train Corridors are sections of the railways which will be free of human waste on the tracks.

HOW IS THIS BEING ACHIEVED?

This is being achieved by the installation of bio-toilets in all coaches of Indian Railways.

Background:

Railways have taken up a mammoth task of providing human discharge free bio-toilets in all its coaches to make the entire railway track a green corridor by 2020. Railways have already provided around 48,000 bio-toilets in about 14,000 passenger coaches.

The 114-km stretch in Tamil Nadu between Rameswaram and Manamadurai had been identified as a Human Waste Discharge Free Train Corridor and was formally inaugurated as the first green corridor in July this year. Accordingly, ten passenger trains consisting of 286 coaches moving over this section have been provided with bio-toilets.

Bio-toilets:

The technology of environment-friendly bio-toilets has been developed jointly by the Indian Railways and the Defence Research & Development Organisation (DRDO) through an MoU.

These toilets function in a manner that the human waste is collected in tanks below the toilets and the same is decomposed by the use of various bacteria.

International Conference on Voter Education:

- The first ever Global Conference on Voter Education titled 'Voter Education for Inclusive, Informed and Ethical Participation' is being held in New Delhi.
- It is being organized by the Election Commission of India (ECI) in association with UNDP.
- Motto – “No Voter to be Left Behind”.
- This Conference represents nearly 40% of the world's population under a single roof, bears the testimony to the importance of the Conference on the world stage.
- People are at the center of focus of this conference and deliberations would be held in great detail so as to adopt best practices across the world to ensure

Voter Education and maximum Electoral Participation of the People.

- Participants are also planning to establish a Global Knowledge Network on Voter Education, VoICE.NET, which will be an innovative wide platform to share knowledge resources, interact on discussion board, sharing platform for events and practices in various countries and also extend knowledge and resource support to all stakeholders.

2ND JOINT TACTICAL EXERCISE BY INDIA AND CHINA:

- As part of the ongoing initiative to enhance interaction and cooperation between India and China, under the provisions of Border Defense Cooperation Agreement, 2013, the Indian and Chinese armies recently held Second Joint Exercise “Sino India Cooperation 2016”. It was held in Ladakh.
- During the day long exercise on Humanitarian Aid and Disaster Relief (HADR) a fictitious situation of earthquake striking an Indian Border village was painted. Thereafter joint teams carried out rescue operations, evacuation and rendering of medical assistance.
- The exercise is aimed at increasing the level of trust and cooperation between the two border guarding forces along the LAC in Eastern Ladakh.
- The joint exercise, compliments the Hand in Hand series of the India -China joint exercises and the effort of both the nations to enhance cooperation and maintain peace and tranquility along the border areas of India and China.

INS Tihayu:

- The Indian Navy has commissioned the highly manoeuvrable fast attack craft INS Tihayu at the Eastern Naval Command.
- INS Tihayu is the second ship of the four follow-on Water Jet Fast Attack Craft (FO-WJFAC), being built by M/s Garden Reach Shipbuilders and Engineers Ltd (GRSE).

- Conceived, designed and built indigenously, the commissioning of this ship completes the addition of another chapter to the nation's 'Make in India' initiative and indigenisation efforts in the field of warship design and construction.
- Named after Tihayu island (presently known as Katchaliland) in the Nicobar group, the 320-tonne INS Tihayu, measuring 49 meters can achieve speeds in excess of 35 knots.
- The ship is capable of operating in shallow waters at high speeds and is equipped with enhanced fire power. Built for extended coastal and offshore surveillance and patrol the warship is fitted with advanced MTU engines, water jet propulsion and the latest communication equipment.

SMARTER RAILWAY STATIONS:

- A Memorandum of Understanding (MoU) has been signed between the Urban Development Ministry and the Railways to redevelop railway stations and surrounding areas under the Smart City plan.
- To begin with, 100 railway stations and an adjoining area of 300-800 acres would be redeveloped in the Smart Cities and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) Cities plans.
- At present, railway stations in 10 cities could be taken up for the redevelopment with the involvement of the National Buildings Construction Corporation (NBCC). They are Varanasi, Sarai Rohilla (Delhi), Bhubaneswar, Lucknow, Varanasi, Jaipur, Kota, Thane, Margao (Goa), Tirupati and Puducherry.
- Countries like Germany, France, Japan, South Korea, the U.K. and Belgium have shown interest in the redevelopment of railway stations.
- The scope of the MoU will be extended to over 500 cities in time. The cost of redeveloping about 500 acres in the Smart City Plans of 60 approved cities is approximately Rs. 1,500 crore.
- The validity of the MoU is five years and can be extended with the consent of both the ministries.

PAKISTAN WARNS INDIA AGAINST BREACHING INDUS WATER TREATY

Amid reports that India might revisit the key Indus Water Treaty, Pakistan has warned "appropriate action" if India violated the Treaty and said it was closely monitoring the situation.

About the treaty:

The Indus river basin spans parts of 4 countries (Afghanistan, Pakistan, India and China) in an area that is more than 30% arid.

- Beas, Ravi, Sutlej, Indus, Chenab and Jhelum from the Indus water system that flows from India to Pakistan.
- Signed in 1960 by then Prime Minister Jawaharlal Nehru and then Pakistan President Ayub Khan, the treaty allocates 80% of water from the six-river Indus water system to Pakistan.
- Under the treaty, control over six north Indian rivers were divided between the two countries. India got control over the rivers Beas, Ravi and Sutlej whereas Pakistan got control over Indus, Chenab and Jhelum.
- It was brokered by the World Bank. The Treaty also provides arbitration mechanism to solve disputes amicably.
- A Permanent Indus Commission was set up as a bilateral commission to implement and manage the Treaty. The Commission solves disputes arising over water sharing.

TRIPLE TALAQ A HIGHLY MISUSED CUSTOM: NCW

Asking the government to scrap the triple talaq system to protect the rights of Muslim women, the National Commission of Women (NCW) has observed that the system was a "highly misused" custom.

- The commission also observed that this issue cannot be linked to the Uniform Civil Code.
- The commission has received several representations from Muslim women who said they felt

“disempowered” because of the practice of triple talaq.

WHAT IS TRIPLE TALAQ?

‘Triple Talaq’ is a procedure of divorce under the Sharia Law which is a body of the Islamic law. Under this, a husband can divorce his wife by pronouncing ‘Talaq’ thrice.

Why triple talaq should be abolished?

- According to a study, 92% of Muslim women in India want oral triple talaq to go. Because there are several instances where ‘triple talaq’ has enabled husbands to divorce their wives arbitrarily, devoid of any substantiation.
- Oral talaq or ‘triple talaq’ delivered through new media platforms like Skype, text messages, email and WhatsApp have become an increasing cause of worry for the community.
- The ‘triple talaq’ has been abolished in 21 countries including Pakistan, but is still prevalent in India.
- These practices are also against constitutional principles such as gender equality, secularism, international laws etc.
- The government also argues that when these practices are banned in Islamic theocratic countries, the practices could have absolutely no base in religion and are only prevalent to permit the dominance of men over women.

ABOUT NCW:

The National Commission for Women (NCW) is a statutory body of the Government of India, generally concerned with advising the government on all policy matters affecting women.

- It was established in January 1992 under the provisions of the Indian Constitution, as defined in the 1990 National Commission for Women Act.
- The objective of the NCW is to represent the rights of women in India and to provide a voice for their issues and concerns.

- The commission regularly publishes a monthly newsletter, RashtraMahila in both Hindi and English.

HDFC RAISES RS 500 CRORE VIA MASALA BONDS

Mortgage lender HDFC has raised Rs 500 crore through the sale of Masala Bonds. HDFC has raised a total of Rs 5,000 crore through issuance of rupee-denominated bonds in four tranches.

What are Masala Bonds?

The rupee-denominated bonds or masala bonds are instruments through which Indian entities can raise funds by accessing overseas capital markets, while the bond investors hold the currency risk.

Why is it important?

Masala bonds, if they take off, can be quite a significant plus for the Indian economy. They are issued to foreign investors and settled in US dollars. Hence the currency risk lies with the investor and not the issuer, unlike external commercial borrowings (ECBs), where Indian companies raise money in foreign currency loans.

While ECBs help companies take advantage of the lower interest rates in international markets, the cost of hedging the currency risk can be significant. If unhedged, adverse exchange rate movements can come back to bite the borrower. But in the case of Masala bonds, the cost of borrowing can work out much lower.

World’s largest outdoor air purifier:

- China is all set to deploy the world’s largest outdoor air purifier.
- It is designed by a Dutch engineer.
- It will be deployed in its smog-hit capital Beijing.
- The 7 metre tall tower can capture about 75% of PM 2.5 and PM 10 tiny particles in its vicinity and then release purified air to create a “bubble” of fresh air around it.
- The tower can clean 30,000 cubic metres of air per hour through its patented ozone-free ion technology.

KASHMIR'S RED STAG CRITICALLY ENDANGERED:

- In order to get more attention and protection to Kashmir's Red stag, the International Union for Conservation of Nature (IUCN) has decided to put Red Stag on the critically endangered species list.
- The organisation is also aiming to enhance the conservation efforts to increase its declining population.
- It is listed under Schedule-I of the Indian Wildlife (Protection) Act, 1972 and J&K Wildlife (Protection) Act, 1978 and has also been listed among the top 15 species of high conservation priority by the Government of India.
- The cited reasons for the decline in its population are said to be habitat destruction, over-grazing by domestic livestock, and poaching.

CENTRAL ASSISTANCE FOR 99 PRIORITIZED IRRIGATION PROJECTS UNDER AIBP

The government has released the first installment of Rs. 1500 crore to the states as central assistance for 99 prioritized irrigation projects under Accelerated Irrigation Benefits Program (AIBP).

- This amount has been released for 50 projects in the states of Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Odisha, Punjab, Rajasthan and Telangana.

Background:

Total funds required for completion of all the 99 identified projects have been estimated at Rs.77595 crore. These projects will cover all most all drought prone districts of 18 States of country and will also go a long way to contain the incident of suicide by farmers.

ABOUT AIBP:

Central Government launched the AIBP in the year 1996-97 to provide Central Assistance to major/medium irrigation projects in the country, with the objective to accelerate implementation of such projects which were

beyond resource capability of the States or were in advanced stage of completion.

- Priority was given to those projects which were started in Pre-Fifth and Fifth Plan period and also to those which were benefiting Tribal and Drought Prone Areas. From the year 1999-2000 onwards, Central Loan Assistance under AIBP was also extended to minor surface irrigation projects (SMI) of special category States.
- Later, during 2015-16, PMKSY was conceived amalgamating ongoing schemes viz. Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD&GR), Integrated Watershed Management Programme (IWMP) of Department of Land Resources (DoLR) and the On Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC).
- The scheme will be implemented by Ministries of Agriculture, Water Resources and Rural Development.

The major objective of PMKSY is to achieve convergence of investments in irrigation at the field level, expand cultivable area under assured irrigation, improve on-farm water use efficiency to reduce wastage of water and enhance the adoption of precision-irrigation and other water saving technologies (More crop per drop).

WESTERN ZONAL COUNCIL MEETING HELD IN MUMBAI

The 22nd meeting of the Western Zonal Council consisting of the States of Maharashtra, Gujarat, Goa and Union Territories of Daman & Diu and Dadra & Nagar Haveli was recently held at Mumbai under the chairmanship of ShriRajnath Singh, Union Home Minister.

Key facts:

- The meeting was attended by the Chief Ministers and Ministers of these States and Administrators of Union Territories as well as senior officers of Central and State Governments.

- The Council reviewed issues which relate to coastal security, internal security, issuance of bio-metric identity cards to fishermen & issue of card readers, formulation of plans for countering terrorism, modernization of police force etc.
- Other important issues discussed were PradhanMantriAwasYojna (Urban) Mission, surplus lands of Central Government for 'Housing for All: 2022' and providing shelters to the urban homeless.
- Issues relating to checking pollution in Daman Ganga and Kolakriver due to discharge of untreated effluents from Vapi industrial area were also deliberated in detail.

Background:

- Five Zonal Councils (Northern, Western, Eastern, Central and Southern) were set up under the States Reorganization Act, 1956 to foster Inter-State co-operation and co-ordination among the States.
- The Zonal Councils are mandated to discuss and make recommendations on any matter of common interest in the field of economic and social planning, border disputes, linguistic minorities or inter-State transport etc.
- They are regional fora of cooperative endeavor for States linked with each other economically, politically and culturally.
- Being compact high level bodies, specially meant for looking after the interests of respective Zones, they are capable of focusing attention on specific issues taking into account regional factors, while keeping the national perspective in view.

India Signs Guarantee Agreement with the World Bank

A Guarantee Agreement for World Bank (IBRD) lending of US\$ 650 million to the Dedicated Freight Corridor Corporation of India Ltd. (DFCCIL) for Eastern Dedicated Freight Corridor-III (EDFC-III) Project has been signed between the Government of India and the World Bank.

ABOUT EASTERN DEDICATED FREIGHT CORRIDOR-III PROJECT:

The objective of the EDFC-III Project is to augment rail transport capacity, improve service quality and enhance freight carriage throughput on the 401 km Ludhiana-Khurja section of the Eastern Dedicated Freight Corridor.

- It also aims to develop institutional capacity of DFCCIL to build, maintain and operate the entire DFC network.
- This project is in continuation of Phase-I and II of the EDFC Projects being implemented by the DFCCIL with the World Bank loan of US\$ 975 million and US\$ 1100 million respectively on the Dadri-Khurja-Kanpur and Kanpur-Mughal Sarai stretches of the Eastern Rail Corridor (Ludhiana-Delhi-Kolkata).

Significance of this project:

The project will directly benefit the power and heavy manufacturing industries of Northern and Eastern India, which rely on railway network for transportation of their material inputs and also for the distribution of bulk processed and semi-processed commodities and consumer goods. Railway passengers will also be benefitted through decongestion of the existing passenger lines.

LOAN TO NATIONAL WATER DEVELOPMENT AGENCY (NWDA)

NABARD has sanctioned loan worth Rs. 19,702 crore to National Water Development Agency (NWDA) for 50 irrigation projects from 11 States under Long Term Irrigation Fund (LTIF). It is part of the government's vision to double the farmers' income by 2022.

- This loan is part of the Central share of assistance to State Governments and will ensure front loading of resources so that the identified incomplete irrigation projects under PradhanMandtriKrishiSinchaiYojna (PMKSY) are executed in time.
- This would help complete not only the irrigation projects but also the Command Area Development

works which are central to ensure full utilisation of irrigation potential so created.

- Long Term Irrigation Fund (LTIF) was set up by NABARD.

ABOUT NABARD:

- It is an apex development and specialized bank established in July 1982 by an act by the parliament of India.
- Its main focus is to uplift rural India by increasing the credit flow for elevation of agriculture & rural non farm sector.
- It was established based on the recommendations of the Committee set up by the Reserve Bank of India (RBI) under the chairmanship of Shri B. Shivaraman.
- It replaced the Agricultural Credit Department (ACD) and Rural Planning and Credit Cell (RPCC) of Reserve Bank of India, and Agricultural Refinance and Development Corporation (ARDC).
- It has been accredited with “matters concerning policy, planning and operations in the field of credit for agriculture and other economic activities in rural areas in India”.
- NABARD is active in developing financial inclusion policy and is a member of the Alliance for Financial Inclusion.
- It also looks after the development of the cottage industry, small industry and village industry, and other rural industries.

CIVIL AVIATION MINISTRY’S REGIONAL CONNECTIVITY SCHEME “UDAN” LAUNCHED

The Centre has unveiled a regional connectivity scheme, known as UDAN (UdeDeshkaAamNagrik), with flights priced at Rs.2,500 for one hour of flying time to and from regional airports.

About the scheme:

A “first of its kind” in the world, UDAN (UdeDeshKaAamNaagrik) will be based on market mechanism as well as bidding for a minimum of 50% seats in the participating airline’s flight and the rest would be market-based pricing.

The scheme UDAN envisages providing connectivity to un-served and under-served airports of the country through revival of existing air-strips and airports. The scheme would be in operation for a period of 10 years.

Key features of the scheme:

- The UDAN scheme will be applicable on flights which cover between 200 km and 800 km with no lower limit set for hilly, remote, islands and regions which are security sensitive.
- Under the UDAN scheme, the flights are bound to connect at least one RCS airport (underserved and unserved airports).
- The RCS caps fares and also offers a ceiling for the VGF available for each route. Which means the airlines cannot charge beyond the caps specified from passengers.
- For the shortest route under the scheme fare has been capped at Rs 1,420. For longest route, fare has been capped at Rs 3,500.
- The Centre has also decided to provide concessions such as 2% excise on Value Added Tax (VAT) and service tax at 1/10th.
- State government are bound to provide free security and fire service, utilities at concessional rates and reduce VAT on ATF to 1%.
- There will be no landing charges, parking charges and Terminal Navigation Landing Charges will be imposed for RCS flights.

RULES FOR RS. 40,000 CR. FOREST FUND TO BE READY IN A MONTH

The Environment Ministry will shortly frame rules to help States use a Rs. 40,000 crore corpus earmarked to restore forests. Making these rules are a follow-up to the Compensatory Afforestation Fund Bill passed by Parliament in the monsoon session.

Key features of the Bill:

- The Bill establishes the National Compensatory Afforestation Fund under the Public Account of India, and a State Compensatory Afforestation Fund under the Public Account of each state.
- These Funds will receive payments for: (i) compensatory afforestation, (ii) net present value of forest (NPV), and (iii) other project specific payments. The National Fund will receive 10% of these funds, and the State Funds will receive the remaining 90%.
- These Funds will be primarily spent on afforestation to compensate for loss of forest cover, regeneration of forest ecosystem, wildlife protection and infrastructure development.
- The Bill also establishes the National and State Compensatory Afforestation Fund Management and Planning Authorities to manage the National and State Funds.

Significance of this bill:

- With this, most Indian States stand to receive funds worth Rs. 6,000 crore per annum for conservation, protection, improvement and expansion of forest and wildlife resources.
- This will also help create more than 15-crore man days of direct employment. Many of these jobs will be in tribal and backward areas.
- Apart from creation of direct employment, utilisation of these amounts will result in increased availability of timber and various other non-timber forest products, and will thus help in improvement of the overall living standards of the forest dependent communities.

- The Indian Coast Guard Ships ‘Aryaman’ and ‘Atulya’, the eighteenth and nineteenth in the series of twenty Fast Patrol Vessels (FPVs), designed and built by Cochin Shipyard Limited, were recently commissioned at Kochi. Equipped with state-of-the-art weaponry, advanced communication and navigational equipment, the ships are ideal platform for undertaking multifarious close-coast missions such as surveillance, search and rescue and interdiction. The special features of the ships include an Integrated Bridge Management System (IBMS) and Integrated Machinery Control System (IMCS).

- Uttar Pradesh had the highest number of cases of human rights violation lodged by the National Human Rights Commission (NHRC) in the past year, with 44% of the total number of cases registered with the NHRC pertaining to the State. UP is followed by Odisha, Haryana, Delhi, Bihar and Rajasthan. U.P. also had the most number of deaths in judicial custody — 401 out of a total of 1,757. It is also the State with the highest number of deaths in police custody — 27 of the total 192 cases. It had the highest number of cases of child labour and bonded labour (11 and 122 respectively) as well.

MONITORING COMMITTEE TO OVERSEE OUTBREAK OF H5 AVIAN INFLUENZA

Acting swiftly on the reports of mortality among the birds in National Zoological Park, Delhi NCR and other parts of the country due to H5 Avian Influenza Virus, the centre has constituted a monitoring committee for overseeing outbreak of H5 Avian Influenza in the country.

- The committee will oversee the daily incidences of H5 Avian Influenza in National Zoological Park and other Zoos of the country and submit a daily report to the Environment Minister.
- To control the disease actions including active surveillance and bio-security measures are being taken up.

AVIAN INFLUENZA OR BIRD FLU:

Avian influenza, commonly called bird flu, is an infectious viral disease of birds with a tendency of causing large-scale outbreaks of serious disease. Although most influenza viruses do not infect humans, A(H5N1) and A(H7N9) have caused serious infections in people.

Bird flu symptoms:

- Fever, cough, sore throat, muscle, body aches, nausea can lead to severe breathing problems, pneumonia, and acute respiratory distress syndrome.

Treatment:

- Human infections with bird flu viruses usually can be treated with the same prescription drugs that are used to treat human seasonal flu viruses.

Risk factors involved:

According to WHO, a few A(H5N1) human cases have been linked to consumption of dishes made of raw, contaminated poultry blood. However, slaughter, handling carcasses of the infected poultry, and preparing poultry for daily consumption in households are likely to be risk factors.

‘One India’ push for ease of business

The Centre is working with State governments to introduce a ‘One India’ concept, the most ambitious ‘ease of doing business’ initiative so far.

What is it all about?

The ‘one-form-one-portal’ model is aimed at attracting huge investments. Under this model, the processes will be simplified to an extent where investors will need to fill only a single e-form for investing and doing business anywhere in India.

- The proposed concept will make it easy for investors to even change plans midway and shift projects to different locations in India where it is easier to do business.

WHY SUCH A REFORM IS NECESSARY?

Currently, firms are mandated to complete multiple forms at the Central and State-levels, and it gets more complicated as each State has different requirements and regulations.

Background:

The reform plan is among steps aimed at helping raise India’s global ranking on the World Bank Group’s ‘Doing Business’ index — from 130 in 2016 — to the top 50 among the 189 economies featured on the list.

Way ahead:

The centre has begun talks with the states, and will soon hold discussions with the private sector and users of government services in this regard. As an initial measure, a draft ‘Common Application Form’ is being circulated among states for their feedback.

FULL CONVERTIBILITY ON CAPITAL ACCOUNT UNLIKELY FOR FEW YEARS

The government has clarified that it is not looking at full capital account convertibility for the next few years.

Background:

RaghuramRajan, the previous Reserve Bank of India governor, had said that the central bank was looking at bringing in capital account convertibility in a few years. However, the debate has acquired a new dimension with the International Monetary Fund (IMF) recently becoming more cautious about its benefits for developing economies

What are capital controls?

Capital controls are used by the state to protect the economy from potential shocks caused by unpredictable capital flows.

What does capital account convertibility mean?

Essentially, it means freedom to convert local financial assets into foreign ones at market-determined exchange rates.

What can it do?

It can lead to free exchange of currency at lower rates. Also, it can result in unrestricted mobility of capital.

How does it benefit a nation?

It can trigger stepped up inflow of foreign investment. Transactions also can become much easier, and occur at a faster pace.

What are the negatives?

It could destabilise an economy especially if there is massive capital flows in and out of the country. Currency appreciation/depreciation could affect the balance of trade.

Where does India stand now?

India currently has full convertibility of the rupee in current accounts such as for exports and imports. However, India's capital account convertibility is not full. There are ceilings on government and corporate debt, external commercial borrowings and equity.

CENTRE PLANS TO LINK VARSITY AUTONOMY TO PERFORMANCE

The Human Resource Development (HRD) Ministry is considering linking the autonomy of higher education institutions to their performance as measured by the National Institutional Ranking Framework (NIRF). Greater autonomy could imply a number of things, including the complete freedom to have their own syllabi and curricula.

The government is thinking of dividing universities into three categories — A, B and C — on the basis of their NIRF rankings.

1. The A category will comprise institutions with high NIRF rank and these will be highest on the autonomy scale
2. The B category will comprise middle-ranking institutions with part autonomy but also government regulation.
3. Category C will mean institutions with low ranking that will require greater regulation and hand-holding for improvement.

Background:

As per the 2016 rankings, IIT Madras topped among engineering colleges, followed by IITs at Mumbai, Kharagpur, Delhi, Kanpur and Roorkee. IIT Madras had a score of 89.41.

Among universities, the Indian Institute of Science, Bengaluru, topped, followed by the Institute of Chemical Technology in Mumbai, Jawaharlal Nehru University in Delhi, Hyderabad University and Tezpur University. Among management schools, IIM Bengaluru was ranked first with a score of 93.04, followed by the IIMs at Ahmedabad, Kolkata, Lucknow, Udaipur and Kozhikode.

The next round of NIRF rankings will be published on the first Monday of April 2017.

WHAT IS NIRF?

The National Institutional Ranking Framework (NIRF) has been approved by the MHRD and was launched in September, 2015. This framework outlines a methodology to rank institutions across the country. The methodology draws from the overall recommendations and broad understanding arrived at by a Core Committee set up by MHRD, to identify the broad parameters for ranking various universities and institutions.

- The parameters broadly cover “Teaching, Learning and Resources”, “Research and Professional Practices”, “Graduation Outcomes”, “Outreach and Inclusivity” and “Perception”.
- NIRF has been given the responsibility of ranking institutions that have applied and submitted their data. The ranking of the Institutions will be done based on the parameters proposed by NIRF for different disciplines.

INDIA FALLS SHORT IN FEMALE LITERACY

Data from new research on female literacy show that India's school education system is under-performing in terms of quality when compared to its neighbours, Pakistan, Bangladesh and Nepal.

- The research was carried out by New York-based International Commission on Financing Global

Education Opportunity. The research studies changes in female literacy over a number of schooling years.

Highlights:

- The proportion of women who completed five years of primary schooling in India and were literate was 48%, much less than 92% in Nepal, 74% in Pakistan and 54% in Bangladesh.
- Female literacy rates went up by one to 15% after completing two years of schooling. Corresponding numbers for Pakistan and Nepal were 3 to 31% and 11 to 47% respectively. This implies that schooling is roughly twice as productive at generating literacy for women during the early grades in Pakistan when compared to India.
- India ranks low in global indices of female literacy as well. If countries are ranked by the earliest grade at which at least half of the women are literate — a proxy for quality of learning — India ranks 38th among the 51 developing countries for which comparable data is available. Indonesia, Rwanda, Ethiopia and Tanzania — all rank higher than India.

Background:

For this research, the authors devised a way to measure the quality of education around the world, with a specific focus on girls, using data from nationally representative Demographic and Health Surveys (DHS) — one of the most comparable data sources on living standards in the developing world.

NCB to seize 500 Bitcoins used in drug trafficking

After cracking down on drug trafficking being conducted through the ‘darknet’ recently, the Narcotics Control Bureau (NCB) is set to freeze about 500 Bitcoins in the accounts of traffickers, the first ever seizure of the virtual, unregulated currency in a criminal probe in the country.

- NCB has interdicted and begun investigation against three syndicates in the country till now and in one case detected in western India, it is moving to seize Bitcoins.

Background:

The Narcotics Control Bureau (NCB) is working on the legal aspects of the case to seize about 400-500 Bitcoins as part of its criminal investigation under the Narcotic Drugs and Psychotropic Substances Act (NDPS) besides a few other laws.

While criminal probe agencies have seized a variety of assets like cash and immovable assets in their respective investigations all these years, Bitcoins have never been frozen as part of the tainted assets seizure. Bitcoin is equivalent to about Rs. 1 crore in the Indian currency.

What is bitcoin?

It is an attempt, using blockchain technology, to create a set of shares in a trading entity that had an initial set value and fixed number (much like the face value and number of shares offered in an initial public offering), in the hope that these shares would become the medium of exchange through which people trade goods and services.

Since the number of shares is fixed, demand for them goes up over a period of time as more and more people use the shares to settle their transactions; so, the bet is that each bitcoin’s value goes up stratospherically since there will never ever be any more bitcoins issued.

- India has won the 2016 Kabaddi World Cup by defeating Iran. It was India’s **third** consecutive Kabaddi World Cup in the Standard Style version of Kabaddi. Earlier India had won in 2004 and 2007.

‘MOBILE AIR DISPENSARY’ FOR REMOTE AREAS OF THE NORTH-EAST

Union Minister of State for Development of North Eastern Region (DoNER), DrJitendra Singh has proposed “Mobile Air Dispensary” service for remote and far-flung areas of Northeast.

Key facts:

- The initiative involves a mobile dispensary in a Helicopter with a doctor, necessary equipment and medicines that can fly to remote and far-flung on regular basis and also, as and when required.

- The idea takes its inspiration from “Royal Flying Service of Australia”, popularly known as “Flying Doctors”, which is meant to provide aid and primary health care service in rural and remote areas.

SIGNIFICANCE OF THIS PROJECT:

This initiative is helpful particularly in areas from where patients find it difficult to reach a dispensary. With this, a doctor with dispensary can reach them.

ISRO starts landing tests for Chandrayaan-2 mission

The Indian Space Research Organisation has started a series of ground and aerial tests linked to the critical Moon landing of Chandrayaan-2 in Karnataka.

Key facts:

- The tests are being conducted at ISRO’s science city located in Karnataka.
- ISRO Satellite Centre or ISAC, the lead centre for the second Moon mission, has artificially created close to ten craters to simulate the lunar terrain and test the Lander’s sensors.
- A small ISRO aircraft has been carrying equipment with sensors over these craters to plan the tasks ahead.
- In the coming months, ISAC would conduct many tests: on avionics and electronics; testing the Lander’s legs, followed by a combined full test.

ABOUT CHANDRAYAAN-2:

- Chandrayaan-2 is tentatively set for late 2017 or early 2018 and includes soft-landing on Moon and moving a rover on its surface.
- It is an advanced version of the previous Chandrayaan-1 mission. It consists of an orbiter, lander and rover configuration.
- The Orbiter spacecraft when launched from Sriharikota will travel to the Moon and release the Lander, which will in turn deploy a tiny Rover to roam the lunar surface — all three sending data and pictures to Earth.

- It is planned to be launched as a composite stack into the earth parking orbit (EPO) of 170 X 18,500 km by GSLV-Mk II.

ONLY A FEW DEBIT CARDS WERE MISUSED, SAYS RBI

The Reserve Bank of India has clarified that the number of debit cards misused in the recent revelation of fraud was ‘few’.

Background:

Recently, India’s largest bank, State Bank of India, said it had blocked close to 6 lakh debit cards following a malware-related security breach in a non-SBI ATM network. Several other banks, such as Axis Bank, HDFC Bank and ICICI Bank, too have admitted being hit by similar cyber attacks — forcing Indian banks to either replace or request users to change the security codes of as many as 3.2 million debit cards over the last two months.

The issue is currently being investigated by an approved forensic auditor, under PCI-DSS (Payment Card Industry-Data Security Standard) framework.

WHAT IS PCI DSS?

The Payment Card Industry Data Security Standard (PCI DSS) is a widely accepted set of policies and procedures intended to optimize the security of credit, debit and cash card transactions and protect cardholders against misuse of their personal information. The PCI DSS was created jointly in 2004 by four major credit-card companies: Visa, MasterCard, Discover and American Express.

The PCI DSS specifies and elaborates on six major objectives. These include:

- A secure network must be maintained in which transactions can be conducted. This requirement involves the use of firewalls that are robust enough to be effective without causing undue inconvenience to cardholders or vendors. In addition, authentication data such as personal identification numbers (PINs) and passwords must not involve defaults supplied by the vendors. Customers should be able to conveniently and frequently change such data.

- Cardholder information must be protected wherever it is stored. Repositories with vital data such as dates of birth, mothers' maiden names, Social Security numbers, phone numbers and mailing addresses should be secure against hacking. When cardholder data is transmitted through public networks, that data must be encrypted in an effective way.
- Systems should be protected against the activities of malicious hackers by using frequently updated anti-virus software, anti-spyware programs, and other anti-malware solutions. All applications should be free of bugs and vulnerabilities that might open the door to exploits in which cardholder data could be stolen or altered. Patches offered by software and operating system (OS) vendors should be regularly installed to ensure the highest possible level of vulnerability management.
- Access to system information and operations should be restricted and controlled. Cardholders should not have to provide information to businesses unless those businesses must know that information to protect themselves and effectively carry out a transaction. Every person who uses a computer in the system must be assigned a unique and confidential identification name or number. Cardholder data should be protected physically as well as electronically.
- Networks must be constantly monitored and regularly tested to ensure that all security measures and processes are in place, are functioning properly, and are kept up-to-date.
- A formal information security policy must be defined, maintained, and followed at all times and by all participating entities. Enforcement measures such as audits and penalties for non-compliance may be necessary.

URJA GANGA

PM Modi recently launched Urja Ganga, the highly ambitious gas pipeline project in Varanasi.

Key facts:

- The gas pipeline project aims to provide piped cooking gas to residents of Varanasi within two years and, in another year after that, cater to millions of people in states like Bihar, Jharkhand, West Bengal and Odisha.
- From Varanasi's perspective, an 800-km long MDPI pipeline will be laid and 50,000 households and 20,000 vehicles will get PNG and CNG gas respectively. The government estimates that around 5 lakh gas cylinders will be sent at rural areas annually.
- According to GAIL, with the Urja Ganga project, 20 lakh households will get PNG connections. The project is said to be a major step towards collective growth and development of the Eastern region of India.
- GAIL has built a network of trunk pipelines covering the length of around 11,000 km. With Urja Ganga project, this number will further increase by 2540 km. Work on the 2540-km long Jagdishpur-Haldia and Bokaro-Dhamra Natural Gas pipeline project will begin and will be completed between 2018 and 2020.
- The total cost of project is 12,940 crores of which the union government has sanctioned a grant of Rs 5,176 crores.

Era of e-postal ballots dawns, courtesy EC's new initiative

The government has amended rule 23 of the Conduct of Elections Rules, 1961 enabling service voters, including armed forces personnel, to cast their vote in elections through e-postal ballot.

- Through this move, the government has accepted a long-pending demand which will save valuable time.

How it will work?

Under the new rules, service voters, including personnel from armed forces, can now download the blank post ballot sent to them electronically, mark their preference

and post the filled-up ballot back to their respective returning officers.

On a pilot basis, e-postal ballot system has been introduced for service voters consisting of armed police forces of the central government, other forces subject to the provisions of the Army Act, armed forces of a state serving outside that state, and those employed under the government of India in a post outside India.

Implications of this move:

- This would cut short the delay experienced in the present system of two-way transmission of ballot paper by the postal services.
- The armed forces personnel serving in remote and border areas would be greatly benefited since the present system of two-way transmission of ballot paper by the postal services has not been able to meet the expectations of the service voters.

Background:

The government had approached the Election Commission to help mitigate the difficulties faced by service voters while exercising their franchise. The issue had also come up before the Supreme Court where it was pleaded that an effective mechanism be created for armed forces personnel and their families to exercise their right to vote easily and effectively.

T.N. OPPOSES CENTRE'S STAND ON TRIBUNAL

Tamil Nadu has opposed the Centre's view on the role of tribunal in inter-state river water disputes.

What has the Tamil Nadu said?

According to the Tamil Nadu state government, the position taken by the Centre that the Supreme Court has no power to judicially review the Cauvery tribunal's 2007 award is tantamount to giving the tribunal "absolute, uncontrolled, uncanalised and unguided judicial power which negates the rule of law."

Background:

The Centre had opposed the Supreme Court hearing appeals filed by Tamil Nadu, Karnataka and Kerala

against the tribunal decision. According to the Centre, the Supreme Court was barred under Article 262 (3) and provisions of the Inter-State Water Disputes Act, 1956 from entertaining appeals under Article 136 against the Cauvery tribunal's award.

What the law says?

Article 262, dealing with the adjudication of disputes relating to waters of inter-state rivers or river valleys, says:

- Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter-state river or river valley.
- Notwithstanding anything in this constitution, parliament may by law provide that neither the Supreme Court nor any other court shall exercise jurisdiction in respect of any such dispute or complaint as is referred to in clause (1).

Pursuant to the power conferred by the Constitution (article 262), Parliament has enacted the Inter-State Water Disputes Act, 1956. Key features include:

- A State Government which has a water dispute with another State Government may request the Central Government to refer the dispute to a tribunal for adjudication.
- The Central Government, if it is of opinion that the dispute cannot be settled by negotiation, shall refer the dispute to a Tribunal.
- The Tribunal's composition is laid down in the Act. It consists of a Chairman and two other members, nominated by the Chief Justice of India from among persons who, at the time of such nomination, are Judges of the Supreme Court.
- The Tribunal can appoint assessors to advise it in the proceedings before it.
- On the reference being made by the Central Government, the Tribunal investigates the matter and makes its report, embodying its decision. The

decision is to be published and is to be final and binding on the parties.

- Jurisdiction of the Supreme Court and other courts in respect of the dispute referred to the Tribunal is barred.
- The Central Government may frame a scheme, providing for all matters necessary to give effect to the decision of the Tribunal. The scheme may, inter alia, provide for establishing an authority for implementing (section 6A).
- Article 136: Special Leave Petitions are heard by the Supreme Court under Article 136(1) of the constitution. This provision enables the Supreme Court to grant “special leave to appeal from any judgment, decree, determination, sentence or order in any cause or matter passed or made by any court or tribunal in the territory of India”.

NATIONAL TRIBAL CARNIVAL

The first National Tribal Carnival was recently inaugurated in New Delhi. The carnival seeks to promote a sense of inclusiveness among the tribals.

Key facts:

- Main purpose of the carnival is to promote a sense of inclusiveness among the tribals.
- About 1,600 tribal artists and around 8,000 tribal delegates from across the country took part in the carnival.
- Besides, eminent tribal personalities who have excelled in various fields like sports, arts and culture, literature, academics and medicine were also invited.
- The underlying idea is to preserve and promote various facets of the tribal life relating to culture, tradition, customs and their skills, and to expose it to the general public with a view to utilise the potential for overall holistic development of the Scheduled Tribes.
- Activities like displaying documents on traditional socio-culture aspects, exhibition of art/artifacts, cultural performances, demonstration of skills like

sports, paintings, traditional healing practices, etc. were part of the event.

- There were workshops on issues like implementation of Panchayats (Extension to the Scheduled Areas) Act, 1996 (PESA), its benefit to tribal community and its drawbacks, implication and reservation of Forest Rights Act (FRA), 2006, in politics and recruitment.

INDIA MOVES UP ONE PLACE ON EASE OF DOING BUSINESS RANKINGS

India has moved one rank up to the 130th position in the World Bank’s ‘ease of doing business’ ranking for 2017. The index was released as part of the World Bank’s annual report Doing Business 2017: Equal Opportunity for All.

- World Bank Doing Business reports, introduced in 2004, review business regulations and their enforcement across countries — 190 this year. The latest edition takes into account developments in one year up until June 1, 2016.

Key facts:

- New Zealand has replaced Singapore as the easiest place for doing business.
- New Zealand is followed by Singapore, Denmark, Hong Kong, South Korea and Norway.
- Performance of BRICS nations: Brazil-123, Russia-40, South Africa-74 and China-78.

INDIA’S PERFORMANCE:

While the government’s focus on improving India’s ranking and an overhaul of the Companies Act came in for praise in the report, labour laws were flagged for creating economic distortions. India’s overall score improved marginally to 55.27 as it climbed up the rankings for providing electricity connections, enforcing contracts through commercial divisions in Bombay and Delhi high courts, easier rules for trading across borders and making Employee’s Social Insurance Corporation payments.

WORKPLACE GENDER GAPS PERSIST: WEF CLUB DES CHEFS DES CHEFS:

The World Economic Forum (WEF) has placed India at 87 in 2016 Global Gender Gap Report. The report measured gender parity through four indices: health, education, economy and politics.

Highlights of the report:

- The 11th edition of the WEF's report said the global gender gap is widening and it will take at least 170 years for women to earn as much as men and for them participate equally in the workforce.
- WEF has called for urgent action, saying that progress on the gender equality front was actually slowing down and even reversing in some countries – last year it had predicted these changes would take 118 years.
- While differences in access to education are reducing, researchers found that the gap in income and employment has widened over the past four years – it currently stands at 59%.
- According to the report, the average pay gap for women around the world is nearly half of what men earn, and most of them work longer hours when unpaid labour is factored in. Moreover, women are less likely to be given senior roles in organisations or be retained in the workforce after having children.
- The best performing countries on the list were Iceland, Finland, Norway, Sweden and Rwanda. The poorest were Yemen, Syria, Saudi Arabia and Iran. The United States stood at 73rd while the United Kingdom was ranked 20th.

Performance of India:

- India is ranked 142 on the “health and survival” parameter in the survey of the differences between the genders in 144 countries.
- India is ranked a dismal 136th on economic participation and opportunity, and 113th on educational attainment.
- The only index on which India fared well was political participation – it came in at 9th in the world.

- It is the most exclusive group of chefs from around the world. The group recently paid a visit to PM Modi. The group that is in India, consists of chefs to heads of 16 countries.

- The group calls itself Club Des Chefs Des Chefs which translates to Club of the presidential chefs across the globe. The club is having its annual general assembly in India.

- The group of chefs head the most exclusive kitchens from around the world such as those in the White House and Buckingham Palace. The Chefs feed the world's most powerful and influential people in the world.

- It's an exclusive club because one can be part of it only if one is a chef to a head of state.

MITRA SHAKTI 2016:

- It is the fourth edition of the India-Sri Lanka Joint Military Exercise.

- It is being conducted at Sinha Regimental Centre in Ambepussa, Sri Lanka.

- The main focus of this edition of the joint exercise is to enhance inter-operability while carrying out Counter Insurgency (CI)/Counter Terrorism (CT) operations under the United Nations Mandate.

- The previous exercise with the Sri Lankan Army was successfully conducted in the month of September 2015 at Pune in India.

Man Booker Prize 2016:

- Paul Beatty has become the first US author to win the Man Booker Prize for his novel “The Sellout”.

- The Man Booker Prize is the world's most prestigious English-language literary award.

- It was launched in 1969 and presented by the Man Group.

- The winner of the Man Booker receives £52,500, (\$64,100, 59,000 euros).

- It was only opened to non-Commonwealth authors from 2013 — a decision that was highly controversial in Britain.

NSG: NEW ZEALAND TO PLAY ‘CONSTRUCTIVE’ ROLE

New Zealand PM John Key is on his visit to India. Recently, a meeting was arranged between New Zealand PM and Indian PM to discuss on India becoming a member of the Nuclear Suppliers Group. During this meeting, New Zealand has indicated that it will continue to contribute constructively in India’s bid.

Significance of this move:

This indicates that New Zealand is yet to change its hard-line position on only admitting signatories to the Non-Proliferation Treaty into the NSG, a group which works by consensus.

Also, this move comes in the run-up to a crucial NSG Consultative Group (CG) meeting to be held in Vienna specifically to consider whether countries that haven’t signed on to the NPT can be considered for membership.

Background:

New Zealand is part of a group called the **New Agenda for Coalition** which promotes the NPT and pushes for nuclear disarmament worldwide. Hence, New Zealand has failed to give an outright statement of support for India’s bid to become a member of the Nuclear Suppliers Group.

What is New Agenda for Coalition?

The New Agenda Coalition (NAC) is a geographically dispersed group of middle power countries seeking to build an international consensus to make progress on nuclear disarmament, as legally called for in the nuclear NPT. It was formed in 1998.

Composition:

It is composed of Brazil, Egypt, Ireland, Mexico, New Zealand and South Africa. All current members of the New Agenda Coalition have joined the Humanitarian Initiative, which was founded in 2013 also in the context of the NPT.

Its significance:

The group was formed in response to the North-South divide that stymied talks on nuclear disarmament and non-proliferation within the framework of the NPT. Non-nuclear weapon states believed that not enough progress was being made on disarmament to have warranted the Indefinite Extension of the treaty in 1995, and that the nuclear weapons states were not fulfilling their legal responsibilities towards disarmament, as outlined by Article VI of the NPT.

DISTRIBUTORS CAUTION ON HASTE IN LPG ROLLOUT

LPG distributors have raised serious concerns regarding the government’s haste in implementing the targets set under the PradhanMantriUjjwalaYojana (PMUY) which is aimed at providing poor households with LPG connections, saying that rushed implementation could compromise the safety of the recipients.

Background:

The Ministry of Petroleum and Natural Gas had recently issued a statement highlighting the steps it had been taking to ensure the safety of the LPG cylinder recipients, saying that it has been providing safety handouts, safety briefings at the time of installation and has been organising safety melas and clinics to increase awareness.

Following this, oil marketing companies had sent letters to distributors exhorting them to meet the PMUY target of 3,000 registrations by September 30, 2016 “without fail” or face the consequences, pressure that the distributors say only adds to the safety hazard.

ABOUT THE PRADHAN MANTRI UJJWALA YOJANA:

Under the PradhanMantriUjjwalaYojana, Rs.8,000 crore has been earmarked for providing 50 million LPG (liquefied petroleum gas) connections to poor households.

- Each beneficiary will get financial support of Rs.1,600 for securing an LPG connection.
- Eligible households will be identified in consultation with state governments and Union territories.

- The scheme will be implemented over the next three years.
- The scheme is being implemented by the Ministry of Petroleum and Natural Gas.

REVISED DOUBLE-TAX PACT WITH KOREA NOTIFIED

India has notified the revised double tax avoidance agreement with South Korea under which capital gains tax will be levied at the source with effect from April 1, 2017.

Key facts

- The revised DTAA aims to avoid the burden of double taxation for taxpayers of two countries in order to promote and stimulate flow of investment, technology and services between India and Korea.
- In order to promote cross-border flow of investments and technology, the revised DTAA provides for reduction in withholding tax rates to 10% on royalties or fees for technical services from 15% and to 10% on interest income from 15%.
- The revised DTAA provides for source-based taxation of capital gains arising from alienation of shares comprising more than 5% of share capital.
- The treaty also allows investors to invoke Mutual Agreement Procedure (MAP) in transfer pricing disputes as well as apply for bilateral Advance Pricing Agreements (APAs). It provides for exchange of information, including by financial institutions.
- The reworked DTAA inserts new Article for assistance in collection of taxes between tax authorities. It also inserts new Limitation of Benefits Article i.e. anti-abuse provisions to ensure the benefits of the agreement are availed only by the genuine residents of both the countries.

Background:

The existing Double Taxation Avoidance Convention, which has been in vogue for three decades, provides for residence-based taxation of capital gains on shares,

which means taxes were to be paid where the investor was a resident.

BIOTECH- KISAN

Biotech-KISAN was recently launched by the government. It is a new programme that empowers farmers, especially women farmers. It is a Farmer centric scheme launched by of the Department of Biotechnology.

Key facts:

- The Scheme is for farmers, developed by and with farmers, it empowers women, impacts locally, connects globally, is Pan-India, has a hub-and spoke model and stimulates entrepreneurship and innovation in farmers.
- Biotech-KISAN aims to link farmers, scientists and science institutions across the country in a network that identifies and helps solve their problems in a cooperative manner.
- The scheme includes the Mahila Biotech- KISAN fellowships, for training and education in farm practices, for women farmers. The Scheme also aims to support the women farmers/ entrepreneur in their small enterprises, making her a grass root innovator.
- Biotech-KISAN will connect farmers to best global practices; training workshops will be held in India and other countries. Farmers and Scientists will partner across the globe.
- The scheme is targeted towards the least educated marginalised farmer; Scientists will spend time on farms and link communication tools to soil, water seed and market. The aim is to understand individual problems of the smallholding farmers and provide ready solutions.
- Biotech KISAN will connect farmers with science in the 15 agro-climatic zones of the country in a manner, which constantly links problems with available solutions. In each of these 15 regions, a Farmer organisation will be the hub connected to different science labs, Krishi Vigyan Kendra and State Agriculture Universities co-located in the region. The hub will reach out to the farmers in the region and connect them to scientists and institutions.

- The hub will have tinkering lab, communication cell and will run year-long training, awareness, workshops and which will act as education demonstration units to encourage grass root innovation in the young as well as women farmers.
- There will be a communication set-up to make radio and TV programmes for local stations, as well as daily connectivity through social media.

WORKSHOP ON “FOREST RIGHTS ACT, 2006 HELD

A Workshop on “Forest Rights Act, 2006 – its Implementation, benefits to tribal and other traditional forest dwelling communities and its challenges” was recently held in New Delhi as part of National Tribal Carnival – 2016.

- The Workshop was attended by approximately 250 delegates including Ministers from the States, Members of Parliament, Members of State Legislatures and other dignitaries.

ABOUT FOREST RIGHTS ACT (FRA):

The legislation, which was passed in December 2006, concerns the rights of forest-dwelling communities to land and other resources, denied to them over decades as a result of the continuance of colonial forest laws in India.

- The Act grants legal recognition to the rights of traditional forest dwelling communities, partially correcting the injustice caused by the forest laws.

Rights under the Act:

- Title rights – i.e. ownership to land that is being farmed by tribals or forest dwellers subject to a maximum of 4 hectares; ownership is only for land that is actually being cultivated by the concerned family, meaning that no new lands are granted.
- Use rights – to minor forest produce (also including ownership), to grazing areas, to pastoralist routes, etc.
- Relief and development rights – to rehabilitation in case of illegal eviction or forced displacement; and

to basic amenities, subject to restrictions for forest protection.

- Forest management rights – to protect forests and wildlife.
- Eligibility: Eligibility to get rights under the Act is confined to those who “primarily reside in forests” and who depend on forests and forest land for a livelihood. Further, either the claimant must be a member of the Scheduled Tribes scheduled in that area or must have been residing in the forest for 75 years.

PROCESS OF RECOGNITION OF RIGHTS:

The Act provides that the gram sabha, or village assembly, will initially pass a resolution recommending whose rights to which resources should be recognised. This resolution is then screened and approved at the level of the sub-division (or taluka) and subsequently at the district level. The screening committees consist of three government officials (Forest, Revenue and Tribal Welfare departments) and three elected members of the local body at that level. These committees also hear appeals.

EPFO JOINS NETWORK OF COMMON SERVICES CENTERS

To expand the reach of convenience offered to EPF members, Employees Provident Fund Organisation (EPFO) has joined the network of Common Services Centers (CSC). In this regard, a Memorandum of Understanding (MoU) has been signed between EPFO and CSC e-Governance Services India Limited (CSC SPV). The MoU is initially for a period of five years.

How it works?

To start with, the pensioners of Employees Pension Scheme of EPFO can submit their digital life certificates via JeevanPramaanPatraprogramme through a large number of points of Presence (PoP) of CSC networking in addition to those available at EPFO offices.

How it helps?

With this, the pensioners living in remote areas can avoid cost and inconvenience of travelling down to the EPF offices or their banks for filing paper based life certificate.

WHAT ARE CSCS?

Common Services Centers (CSC) network is one of the largest government approved online service delivery channel in the world. CSC are broadband enabled rural service delivery points established by District e Governance Societies (DeGSs), selected by the State Governments, for aggregating content and offering relevant Government to Customers (G2C), Business to Customers (B2C), Business to Business (B2B) and other services.

CSCs enable the three vision areas of the Digital India programme:

- Digital infrastructure as a core utility to every citizen.
- Governance and services on demand.
- Digital empowerment of citizens.

CABINET APPROVES ESTABLISHMENT OF NATIONAL ACADEMIC DEPOSITORY

The Union Cabinet has accorded its approval for establishment and operationalisation of a National Academic Depository (NAD). The decision aims at bringing another dimension and enhancement of the vision of Digital India.

Key facts:

- The NAD would be established and operationalised within the next three months and would be rolled out throughout the country in 2017-18.
- The NAD would be operationalised by NSDL Database Management Limited (NDML) and CDSL Ventures, Limited (CVL) – two of the wholly owned subsidiaries of the Depositories registered under Securities Exchange Board of India (SEBI) Act, 1992.
- Academic institutions would be responsible for the authenticity of data digitally uploaded by them into the system. The depositories will ensure the integrity of the data in the NAD. The NAD will register educational institutions/boards/eligibility assessment bodies, students and other users/verifying entities

like banks, employer companies, government agencies and academic institutions.

- It will provide digital or a printed copy of the academic award with security features to the students or other authorized users. NAD will verify academic awards online on the same day of request initiated by any authorized user.
- Requests for access to academic awards, for example, from potential employers, and academic institutions would be only on the basis of consent of the student.
- NAD shall maintain the authenticity, integrity and confidentiality of its database. It will also train and facilitate academic institutions/boards/eligibility assessment bodies to efficiently lodge academic awards in the database.

Background:

The Finance Minister's Budget Speech of 2016-17, in February this year, incorporated this commitment to establish a Digital Depository for school learning certificates, degrees and other academic awards of Higher Education Institutions, on the pattern of a Securities Depository.

CABINET APPROVES AGREEMENT BETWEEN INDIA AND ESTONIA ON THE TRANSFER OF SENTENCED PERSONS

The Union Cabinet has given its approval for signing and ratification of an Agreement between India and Estonia on the transfer of sentenced persons.

- Signing the Agreement facilitates the Indian prisoners imprisoned in Estonia or vice-versa to be near to their families, for serving remaining part of their sentence and shall facilitate their social rehabilitation.
- The transfer of such prisoners to their own native countries shall also facilitate their social rehabilitation.

Background:

Prior to 2004, there was no domestic Legislation under which foreign prisoners could be transferred to the country of their origin to serve the remaining part of their

sentence, nor was there a provision for the transfer of prisoners of Indian origin convicted by a foreign court to serve their sentence in India.

- Hence, the Repatriation of Prisoners Act, 2003 was enacted. For achieving the objectives of the Act, a Treaty/Agreement is required to be signed with countries having mutual interest with India and later to be notified in the Official Gazette.
- The Government of India has so far signed bilateral Agreements on Transfer of Sentenced Persons with countries including United Kingdom, Mauritius, Bulgaria, France, Egypt, Sri Lanka, Cambodia, South Korea, Saudi Arabia and Bangladesh. So far total 65 prisoners have been exchanged, out of which 55 were Indians.

CBDT SIGNS 5 UNILATERAL APAS

The Central Board of Direct Taxes (CBDT), Department of Revenue, Ministry of Finance has entered into five (5) Unilateral Advance Pricing Agreements (APAs) with Indian taxpayers.

Key facts:

- The Agreements cover a range of international transactions, including sale of finished goods, purchase of raw materials, software development services, IT enabled services, exports and interest payment.
- The Agreements provide certainty to the taxpayers for 5 years with regard to the covered international transactions.
- With this, the total number of APAs signed so far has reached 108. These include 4 bilateral APAs and 104 unilateral APAs since 2013-14. Of these, 44 APAs have been concluded in 7 months of the current Financial Year itself.

Background:

The APA Scheme was introduced in the Income-tax Act in 2012 and the Rollback provisions were introduced in 2014. The Scheme endeavours to provide certainty to taxpayers in the domain of transfer pricing by specifying the methods of pricing and determining the arm's length

price of international transactions in advance for a maximum period of five future years. Further, the taxpayer has the option to roll-back the APA for four preceding years. Since its inception, the APA scheme has attracted tremendous interest among Multinational Enterprises (MNEs) and more than 700 applications (both unilateral and bilateral) have been filed in just four years.

RUSSIA TO DESTROY ALL OF ITS CHEMICAL WEAPONS BY END OF 2017

Russia has indicated that it will destroy all of its chemical weapons by the end of next year – a year earlier than previously announced.

Background:

Russia had to build several plants in the past two decades to dispose of the world's largest chemical weapons arsenal. As a signatory of the international Chemical Weapons Convention, Russia already has destroyed about 93% of its chemical weapons.

In 1993, when Russia signed the CWC, the country declared that it possessed 40,000 tons of toxic chemicals.

ABOUT THE INTERNATIONAL CHEMICAL WEAPONS CONVENTION:

The Chemical Weapons Convention (CWC) is a multilateral treaty that bans chemical weapons and requires their destruction within a specified period of time.

- CWC negotiations started in 1980 in the UN Conference on Disarmament. The convention opened for signature on January 13, 1993, and entered into force on April 29, 1997.
- The CWC is implemented by the Organization for the Prohibition of Chemical Weapons (OPCW), which is headquartered in The Hague.
- The OPCW receives states-parties' declarations detailing chemical weapons-related activities or materials and relevant industrial activities. After receiving declarations, the OPCW inspects and monitors states-parties' facilities and activities that are relevant to the convention, to ensure compliance.

- The CWC is open to all nations and currently has 192 states-parties. Israel has signed but has yet to ratify the convention. A key non-signatory includes North Korea.

THE CHEMICAL WEAPONS CONVENTION PROHIBITS:

- Developing, producing, acquiring, stockpiling, or retaining chemical weapons.
- The direct or indirect transfer of chemical weapons.
- Chemical weapons use or military preparation for use.
- Assisting, encouraging, or inducing other states to engage in CWC-prohibited activity.
- The use of riot control agents “as a method of warfare.”

INTER-STATE COUNCIL RECONSTITUTED WITH PM AS HEAD

The Inter-State Council, a constitutional body to facilitate coordination between states and the centre, has been reconstituted with Prime Minister Narendra Modi as the head.

Key facts:

- Besides chief ministers of all states and Union Territories, the Council has six Union Ministers as its members including Home Minister Rajnath Singh, Defence Minister Manohar Parrikar and External Affairs Minister Sushma Swaraj.
- Few Ministers have been appointed as permanent invitees.
- Administrators of Union Territories which do not have legislative Assembly will also be on the Council.

WHAT IS THE INTER-STATE COUNCIL?

The Council is a recommendatory body to investigate and discuss subjects, in which some or all of the states or the union government have a common interest.

Key facts:

- Article 263 of the Constitution of India provides for the establishment of an Inter-State Council.
- It considers recommendations for the better coordination of policy and action, and also matters of general interest to the states.
- The inter-state council is not a permanent constitutional body for coordination between the states and union government. It can be established ‘at any time’ if it appears to the President that the public interests would be served by the establishment of such a council.

WHAT IS THE COMPOSITION OF THE INTER-STATE COUNCIL?

The inter-state council was established under Article 263 of the Constitution of India through a Presidential Order dated 28 May 1990. The Council shall consist of prime minister who is the chairman, chief ministers of all states who are members, chief ministers of union territories and administrators of UTs as members, and six union ministers of cabinet rank in the union council of ministers nominated by the prime minister are also members.

RANGE OF BRAHMOS TO BE DOUBLED

India and Russia have agreed to double the range of the BrahMos supersonic cruise missile that the two produce together. This follows India’s recent accession to the Missile Technology Control Regime (MTCR).

Background:

Earlier, India was denied access to the missile technology with range over 300 km as it was not a member state.

Significance of this move:

Extending the range will significantly enhance the stand-off capability and the operational radius in striking targets. Combined with its speed and accuracy it will be a major force multiplier.

Brahmos:

- It is a two stage missile, jointly developed by India and Russia.
- The missile can fly at a supersonic speed of 2.8 Mach and at a height of ten metres during the final stages of its flight.
- It carries conventional warheads.
- It can be launched from ships, land and submarines.

ABOUT MTCR:

The Missile Technology Control Regime is an informal understanding between member countries to limit the proliferation of missiles, rocket systems, unmanned air vehicles and related technology for systems that can carry a 500 kilogramme payload for at least 300 kilometres, as well as those systems intended for the delivery of weapons of mass destruction (WMD).

- It was established in April 1987 by the G-7 countries (Canada, France, Germany, Italy, Japan, the UK, and the United States).
- It is not an official treaty with legally binding obligations. It is only an informal political understanding.
- The items included under MTCR guidelines are divided into Category I (complete rocket and unmanned aerial vehicle systems) and Category II (dual use missile related components and systems).
- India became the 35th country to join the regime.

ARREST OF STAFFER VIOLATES VIENNA CONVENTION, SAYS PAKISTAN

Pakistan has accused India of violating the international convention for protection of diplomats after New Delhi briefly detained a staffer of the Pakistan High Commission.

Background:

Indian security agencies recently arrested a Pakistani High Commission staffer on allegations of espionage. The charges are that he was found to be in possession of

defence-related documents. Soon after the arrest, however, he was released, declared persona non grata, and informed that he must leave India within 48 hours.

What is the Vienna Convention?

It's a treaty that came into force in 1964, which lays out the rules and regulations for diplomatic relations between countries as well as the various privileges that diplomats and diplomatic missions enjoy. One of these privileges is legal immunity for diplomats so that they don't have to face prosecution as per their host country's laws.

- The State of Himachal Pradesh has been declared Open Defecation Free (ODF). HP is the second State in the country (after Sikkim) to achieve the feat. With this, Himachal Pradesh has successfully achieved a total rural sanitation coverage of 100% in the State, with all 12 out of 12 districts in the State being both, declared as well as verified, as ODF.

- Twenty-four nations and the European Union have agreed unanimously to declare the Ross Sea in Antarctica an official Marine Protected Area after negotiations brokered by the UN's Commission for the Conservation of Antarctic Marine Living Resources. With this, some 1.57m sq km (600,000 sq miles) of the Southern Ocean will gain protection from commercial fishing for 35 years. The Ross Sea is one of the last intact marine ecosystems in the world, home to penguins, seals, Antarctic toothfish, and whales. It is seen as critical for scientists to study how marine ecosystems function and to understand the impacts of climate change on the ocean.

THREE ASTRONAUTS RETURN FROM ISS

Three astronauts recently landed safely in Kazakhstan following a 115-day mission aboard the International Space Station.

Key facts:

- The team included U.S. astronaut **Kate Rubins**, the **first person to sequence DNA in space**. Ms. Rubins' participation in the mission generated particular excitement after NASA announced plans

for the career scientist to sequence DNA aboard the ISS in a world first.

- Rubin's participation was aimed at identifying potentially dangerous microbes aboard the ISS and diagnose illnesses in space.
- This journey marks the **first complete mission to and from the orbital lab for a new generation of Soyuz spacecraft** with upgraded features

ABOUT THE INTERNATIONAL SPACE STATION (ISS):

The International Space Station (ISS) is a space station, or a habitable artificial satellite, in low Earth orbit. The ISS is now the largest artificial body in orbit.

- The ISS consists of pressurised modules, external trusses, solar arrays and other components. ISS components have been launched by Russian Proton and Soyuz rockets as well as American Space Shuttles.
- The ISS serves as a microgravity and space environment research laboratory in which crew members conduct experiments in biology, human biology, physics, astronomy, meteorology and other fields.
- The station is suited for the testing of spacecraft systems and equipment required for missions to the Moon and Mars.
- The ISS maintains an orbit with an altitude of between 330 and 435 km by means of reboost manoeuvres using the engines of the Zvezda module or visiting spacecraft. It completes 15.54 orbits per day.
- ISS is the ninth space station to be inhabited by crews, following the Soviet and later Russian Salyut, Almaz, and Mir stations as well as Skylab from the US.
- The ISS programme is a joint project among five participating space agencies: NASA, Roscosmos, JAXA, ESA, and CSA.

- The ownership and use of the space station is established by intergovernmental treaties and agreements. The station is divided into two sections, the Russian Orbital Segment (ROS) and the United States Orbital Segment (USOS), which is shared by many nations.

ANDAMAN GETS TRAINING IN SEAWEED FARMING

The emerging seaweed farming industry in the country will get a major boost with the Central Marine Fisheries Research Institute (CMFRI) recently transferring seaweed cultivation technology to the Andaman administration.

- The CMFRI has provided scientific inputs on methods of seaweed farming suitable for the islands as part of the institute's initiative to intensify its consultancy services.

WHY ANDAMAN WAS SELECTED?

A feasibility study conducted in the seawater-inundated areas in south Andamans by a team of CMFRI scientists revealed that these regions had good prospects for seaweed farming. Also, aimed at avoiding environmental disruptions, the CMFRI selected the coastal areas devoid of coral reefs.

Background:

Seaweed cultivation is perceived as one of the most environmentally benign types of mariculture. Seaweeds are of immense industrial, human and agricultural value. They gained prominence during 13th century, after the discovery of agar-agar in Japan and Alginic Acid in European continent.

What is seaweed cultivation?

Seaweed farming is the practice of cultivating and harvesting seaweed. In its simplest form, it consists of the management of naturally found batches. In its most advanced form, it consists of fully controlling the life cycle of the algae.

SEAWEED CULTIVATION IN INDIA:

In India, agar-agar gained importance as seaweed chemicals during the Second World War. After the advent of Central Salt and Marine Chemical Research Institute (CSMCRI), commercial technologies for agar-agar, alginic acid, Carrageenan and LSF, the importance of seaweed wealth on Indian coast especially South Indian coast has been greatly realised. Consequently, a systematic study on seaweed resources assessment in South Indian coast has been carried out jointly by Central Salt and Marine Chemicals Research Institute and Central Marine Fisheries Institute and the Department of Fisheries, Government of Tamil Nadu.

The surveys conducted in this connection revealed the vast hidden wealth of seaweeds from this region which has a great bearing on the future of seaweed based industries in India.

EMPLOYEES ONLINE (EO) MOBILE APP OF DOPT LAUNCHED

The government has launched the Employees Online (EO) App. EO App is a mobile application of the Department of Personnel & Training (DoPT), Ministry of Personnel, Public Grievances and Pensions.

Key facts:

- The application would enable its users, which may include officers, media persons and all stakeholders to stay updated on real time basis with appointments and postings approved by the Appointments Committee of the Cabinet (ACC) and vacancies at senior level in the Government of India.
- By eliminating the information asymmetry in this regard, the EO App will reduce speculations regarding transfers and postings in the Government of India and will make the system completely transparent as all the relevant orders and notifications will now be instantly available in the public domain.
- This is an effective management tool which also empowers the IAS officers on Pan India basis and officers serving under Central Staffing Scheme by providing their personal records like Annual Performance Appraisal Report (APAR), Immovable

Property Return (IPR), Executive Record (ER) sheet through secured NIC login Id and Password.

RUSSIA OUSTED FROM UN HUMAN RIGHTS COUNCIL IN HISTORIC VOTE

Russia has lost its bid to retain a seat on the UN Human Rights Council. The General Assembly recently elected 14 countries to the 47-member council. With 112 votes, Russia lost to Hungary and Croatia.

- This is the first time Russia has not been part of the UNHRC since the council's inception in 2006.
- 80 different human rights organizations had signed a petition asking Russia be removed from UNHRC after Russia's involvement in Syria's civil war caused many to believe Russia is guilty of war crimes.

UNHRC:

It is an inter-governmental body within the United Nations system responsible for strengthening the promotion and protection of human rights around the globe and for addressing situations of human rights violations and make recommendations on them.

- It meets at the UN Office at Geneva.
- The Council is made up of 47 United Nations Member States which are elected by the UN General Assembly.
- The term of each seat is three years, and no member may occupy a seat for more than two consecutive terms.
- The council works closely with the Office of the High Commissioner for Human Rights and engages the United Nations' special procedures.
- The General Assembly can suspend the rights and privileges of any Council member that it decides has persistently committed gross and systematic violations of human rights during its term of membership. The suspension process requires a two-thirds majority vote by the General Assembly.