

# Abhimanu

Weekly current affairs Series

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**Week: II, September 2018**

**Abhimanu's IAS Study Group**  
Chandigarh

## NATIONAL ECONOMIC AFFAIRS

### e-AarogyaBharati (e-VBAB) Network Project

- Telecommunications Consultants India Ltd. (TCIL) signed an agreement with Ministry of External Affairs (MEA) for the implementation of e-VBAB (e-VidyaBharati and e-AarogyaBharati) Network Project for a total value of Rs. 865 Crores.
- To continue providing Tele Education and Tele Medicine services from elite Indian Universities and Super Specialty Hospitals to African nations using Internet as transmission media, TCIL had already successfully executed Phase-1 of PAeNP from 2008 to 2017.

#### About e- VBAB Network project:

- E-VBAB Network Project is primarily a technological upgrade and extension of the Pan-African e-Network Project (Phase 1) which was implemented in 48 partner countries across Africa from 2009 till 2017. The Phase 1 of the Project successfully imparted tele-education and tele-medicine by linking educational institutions and hospitals in India with those from the participating African countries.
- Over the 5 years project duration, e-VBAB Network Project will provide free tele-education courses in various academic disciplines to 4000 students every year from African countries. The Project will also be utilized for providing free Continuing Medical Education (1000 every year) to African doctors/nurses/para-medical staff. Further, Indian doctors, through this project will provide free medical consultancy to those African doctors who seek such consultancy.
- In order to operationalise the e-VBAB Network Project, a Data Centre and Disaster Recovery Centre will be established in India along with Learning Centres in various African countries which decide to be part of the Project. There will be two separate platforms for e-VidyaBharati (tele-education) and e-AarogyaBharati (tele-medicine) which will link, through a web-based technology, various educational institutions and hospitals in India and the participating African countries.
- The e-VBAB Network Project will be completely funded by the Government of India for its entire duration and will be open for participation to all our partner countries in Africa. The Project will be another important milestone in our development partnership with Africa.

### Pradhan Mantri Mudra Yojana

- Mudra Yojana, the scheme which the central government takes pride in, met with a concern when former RBI governor Raghuram Rajan submitted his report to the MP's panel.
- According to report submitted by former RBI governor, the next crisis in India's banking sector could come from loans given to the unorganised micro and small business, called MUDRA (Micro Units Development and Refinance Agency) loans, and credit extended through the Kisan credit card.
- He also flagged the Credit Guarantee Scheme for MSME's (Micro, Small and Medium Enterprises), run by the SIDBI (Small Industries Development Bank of India) as 'a growing contingent liability', which needs to be examined with urgency.

#### About The Pradhan Mantri Mudra Yojana (Pmmy) Scheme

- The objective of MUDRA scheme is to refine collateral-free loans given by the lenders to small borrowers. It has a corpus of Rs 20,000 crore and has the provision of lending from Rs 50,000 to Rs 10 lakh to small entrepreneurs.
- As per data from the MUDRA website, a total of Rs 6.37 lakh crore has been disbursed under the MUDRA scheme till date by public and private sector banks, regional rural banks, and micro-finance institutions.
- The unique feature of this scheme is that the MUDRA Card permits an access to working capital through ATMs and card machines.

#### **There Are Three Types Of Loans Under Pmmy:**

- Loans up to Rs 50,000 are categorized as SHISHU
- Loans from Rs 50,001 to Rs 5 lakh are categorized as KISHORE
- Loans from Rs 5,00,001 to Rs 10 lakh are categorized as TARUN
- While there is no processing fee for Shishu and Kishore, Tarun loan attracts a fee of 0.5 per cent of the loan amount (plus applicable tax).

#### **Analysis:**

- MUDRA loans are available for non-agricultural activities and activities allied to agriculture such as dairy and poultry. It aims to fund those who have a business plan to generate income from a non-farm activity -- like manufacturing, processing, or trading -- but don't have enough capital to invest.
- PMMY scheme also puts in place MUDRA Bank which monitors the network of microfinance institutions and also helps to register new institutions as well.
- MUDRA scheme aims to reduce the unemployment by providing micro enterprises with credit facility which will not only increase the country's GDP but also create jobs.
- The scheme also aims to boost the financial inclusion by taking the last mile credit delivery to micro businesses. It also works on the entry of the informal economy into the formal sector as most of the time income from the informal sector is not taxed.

## **Govt announces five measures to stabilize rupee, curb current account deficit**

- Government has announced a series of measures to boost market confidence, curb the widening current account deficit and stabilize the rupee.

#### **Steps to be taken by Government:**

- Mandatory hedging conditions for infrastructure loans through the external commercial borrowing (ECB) route will be reviewed.
- A 20% exposure limit on investments by foreign portfolio investors in debt to a single corporate group will be removed.
- Manufacturing entities will be allowed to access ECB up to \$50 million for maturity of one year.
- Masala bonds will be exempted from withholding tax this financial year and Indian banks will be allowed to become market makers in masala bonds including by underwriting.
- Government will take efforts to reduce non-essential imports.

#### **Why Rupee is falling?**

- The fall in Turkey's current Lira affected most emerging market currencies including the Indian rupee.
- US recent trade policies, including the imposition of import tariffs on some Turkish goods, have had the opposite effect of strengthening the greenback.
- India's merchandise trade deficit widened further in July to scale a 62-month high of \$18 billion riding on the back of an elevated net oil import bill and an almost 41% jump in gold purchases from overseas after a contraction in the previous six months. In June, the trade deficit had hit \$16.6 billion.
- Indian Rupee fall is not on back of any fundamental but foreign investors are hedging Indian assets by purchasing dollar. Investors are buying safe haven currencies Dollar, Yen and Swiss franc and selling off emerging market currencies.
- Foreign institutional investors off-loaded stocks worth Rs 1,100.20 crore from August 1-14. In contrast.

## 48.11 lakh women enrolled under PMMVY

- Pradhan Mantri Matru Vandana Yojana (PMMVY) recently marked the anniversary of the launch of scheme as Matru Vandana Saptah.
- During this week, the States/UTs focused on IEC activities, pendencies under various parameters and escalating daily entry rate of applications. The success of the week was concluded in Dehradun at National Level.
- National level achievement of the scheme post an year's implementation on grounds is 48.11 Lakhs of women enrollment under the scheme till September 13, 2018, out of which 37.30 Lakhs have been paid the maternity benefit which accounts to a total fund disbursement of Rs1168.63 Crores.

### About PMMVY:

- The scheme is a conditional cash transfer scheme for pregnant and lactating women of 19 years of age or above for first two live births.
- It provides partial wage compensation to women for wage-loss during childbirth and childcare and to provide conditions for safe delivery and good nutrition and feeding practices.
- In 2013, the scheme IGMSY was brought under the National Food Security Act, 2013 to implement the provision of cash maternity benefit of ₹6,000 stated in the Act.
- The scheme is a Centrally Sponsored Scheme under which cost sharing ratio between the Centre and the States & UTs with Legislature is 60:40 while for North-Eastern States & three Himalayan States; it is 90:10. It is 100% Central assistance for Union Territories without Legislature.
- The conditional cash transfer needs Aadhaar linkage. It envisages Direct Benefit Transfer of Rs. 5000 in beneficiary's bank/post office account in three installments as follows: a) At the stage of early registration of pregnancy; b) After six months of pregnancy on at least one antenatal checkup and registration of child birth; c) First cycle of immunization of the child.

### Analysis:

- Under-nutrition continues to adversely affect majority of women in India. In India, every third woman is undernourished and every second woman is anaemic. An undernourished mother almost inevitably gives birth to a low birth weight baby. When poor nutrition starts in-utero, it extends throughout the life cycle since the changes are largely irreversible.
- Owing to economic and social distress many women continue to work to earn a living for their family right up to the last days of their pregnancy. Furthermore, they resume working soon after childbirth, even though their bodies might not permit it, thus preventing their bodies from fully recovering on one hand, and also impeding their ability to exclusively breastfeed their young infant in the first six months.

## NATIONAL POLITY

### HIV/AIDS Act, 2017

- The Ministry of Health and Family Welfare has issued a notification for bringing the Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (Prevention and Control) Act, 2017 in force from 10th September, 2018.

- The Act, safeguards the rights of people living with HIV and affected by HIV. The provisions of the Act address HIV-related discrimination, strengthen the existing programme by bringing in legal accountability, and establish formal mechanisms for inquiring into complaints and redressing grievances.

#### **Highlights of the Act:**

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

## **Historians oppose Monuments Bill**

- Historians have vociferously opposed changes to the Ancient Monuments and Archaeological Sites and Remains Act, 1958. If the Act comes into force, they say it could have disastrous consequences for historical monuments, they fear.

#### **The Ancient Monuments and Archaeological Sites and Remains (Amendment) Bill, 2017:**

- The Act defines a ‘prohibited area’ as an area of 100 meters around a protected monument or area. The central government can extend the prohibited area beyond 100 meters. The Act does not permit construction in such prohibited areas, except under certain conditions. The Act also prohibits construction in ‘prohibited areas’ even if it is for public purposes. The Bill amends this provision to permit construction of public works in ‘prohibited areas’ for public purposes.
- The Bill introduces a definition for ‘public works’, which includes the construction of any infrastructure that is financed and carried out by the central government for public purposes. This infrastructure must be necessary for public safety and security and must be based on a specific instance of danger to public safety. Also, there should be no reasonable alternative to carrying out construction in the prohibited area.
- As per the Bill, the relevant central government department, that seeks to carry out construction for public purposes in a prohibited area, should make an application to the competent authority. If there is any question related to whether a construction project qualifies as ‘public works’, it will be referred to the National Monuments Authority. This Authority, will make its recommendations, with written reasons, to the central government. The decision of the central government will be final.
- The Bill empowers the National Monuments Authority to consider an impact assessment of the proposed public works in a prohibited area, including its (i) archaeological impact; (ii) visual impact; and (iii) heritage impact. The Authority will make a recommendation, for construction of public works to the central government, only if it is satisfied that there is no reasonable possibility of moving the construction outside the prohibited area.

#### **Analysis:**

- Historians have opposed changes to the Ancient Monuments and Archaeological Sites and Remains Act, 1958, which proposes to allow the construction of Centre-approved public infrastructure within a 100 metre radius. This could open the way for denigration of ancient monuments in the name of development.
- ASI is already not able to manage protected monuments and such laws will open the flood gates to more such issues.
- A 2013 report by CAG said that about 1/3rd of the National Monuments of the country have been encroached upon and a majority of them were poorly guarded due to the lack of manpower.
- The monuments which are already deteriorating due to pollution, human interference and development activities around are further put under direct threat with the proposed changes.
- Public works by central government are executed more often than other small infrastructure projects which may even cause disturbance to tourism. The construction methods and tools may cause great loss to some architecturally and structurally weak monuments, viz. vibrations, particulate pollutants. It will give people the wrong message of govt. giving priority to development over environment, deterring the public from being conscious about the environment.

## Report on HIV Cases

- According to National AIDS Control Organisation report, New HIV infections have been reported in Assam, Meghalaya, Arunachal Pradesh and Mizoram in 2017, in spite of an overall decline in HIV infection in the country.

### Highlights:

- The report states that Assam, Meghalaya and Mizoram have a high rate of annual new HIV infection trend states (between 2010-17) each reported an increase of 37, 10 and 18 per cent respectively. Women constituted a significant proportion both in terms of AIDS-related deaths and new HIV infections.
- Mizoram, Manipur and Nagaland were accounted as states with adult (15-49 years) HIV prevalence above the national average. Mizoram, Manipur and Nagaland each reported 2.04, 1.43 and 1.15 per cent respectively.
- The increase is mostly attributed to the fact that more people are coming forward for screening and testing.
- Assam reported 1,387 new HIV infections in 2017 with a staggering 37 per cent increase, accounting for 41 per cent of new HIV infections among women.
- The state reported 266 AIDS-related deaths in 2017 which is a 26 per cent increase, with women accounting for 38 per cent.
- Assam is a gateway to the Northeast. It is a melting point of migrant labourers with truckers included. There is the factor of mobility where people go outside the state or within the districts or within the Northeast for work. People are vulnerable to sexual contact.
- Meghalaya state reported 191 new HIV infections in 2017 with a 10 per cent increase and 42 per cent new HIV infections among women. There were 23 AIDS-related deaths, registering a 41 per cent decline but accounting for a 30 per cent AIDS-related deaths among women.
- The HIV/AIDS scenario varies from place to place. For example, Jaintia Hills districts have slighter more HIV infections as compared to East Khasi Hills district. It could be so because of migrant flow or truckers.

### About National AIDS Control Organization (NACO)

- It is a division of the Ministry of Health and Family Welfare that provides leadership to HIV/AIDS control programme in India through 35 HIV/AIDS Prevention and Control Societies.
- In 1986, following the detection of the first AIDS case in the country, the National AIDS Committee was constituted in the Ministry of Health and Family Welfare.
- As the epidemic spread, need was felt for a nationwide programme and an organization to steer the programme. In 1992 India's first National AIDS Control Programme (1992-1999) was launched, and National AIDS Control Organization (NACO) was constituted to implement the programme.

### COMCASA is signed

- India and the U.S. have signed the foundational or enabling agreement COMCASA on the side-lines of the inaugural 2+2 dialogue.

#### What is COMCASA?

- COMCASA stands for Communications Compatibility and Security Agreement and is one of the four foundational agreements that the U.S. signs with allies and close partners to facilitate interoperability between militaries and sale of high end technology.
- COMCASA is an India-specific version of the Communication and Information on Security Memorandum of Agreement (CISMOA). It comes into force immediately, and is valid for a period 10 years.
- COMCASA allows India to procure transfer specialised equipment for encrypted communications for US origin military platforms like the C-17, C-130 and P-8Is. Currently, these platforms use commercially available communication systems.
- COMCASA is a “technology enabler” to help transfer high-tech avionics, encrypted communication and electronic systems to India as well as ensure secrecy of its C4ISR (command, control, communications, computers, intelligence, surveillance and reconnaissance) systems from leaking to other countries like Russia. This agreement would allow the interoperability of India and United States equipments.

#### Analysis:

- The Comcasa provides the legal framework for the US to part with its sensitive communication equipment and codes to enable transfer of realtime operational information. This equipment is largely used for ground-to-air communication, on installed US-origin military aircraft, to enable best battle situation awareness.
- The US data link is considered the most secure communication platform, which will also allow India access to big data base of American intelligence, including real-time imagery.
- The Comcasa will allow both sides to operate on the same communication systems, enabling an “interoperable” environment for militaries.
- Without this agreement, the US cannot part with highly coded communication equipment with the military platforms they sell to India. India has to depend on commercially available less secure systems on, otherwise, high-end platforms like C-130Js and the P8I maritime surveillance aircraft, among others. COMCASA will change that. Now the US government will be able to give the go-ahead to install the best communication equipment on relevant platforms such as aircraft being sold to India.
- COMCASA will effectively mean India sharing the real-time American intelligence on military deployments by China and Pakistan.
- COMCASA will also help India obtain the armed version of the Sea Guardian drones. The US could not part with the weapon systems on the drone without COMCASA which will now allow installation of data and communication systems.
- India has already signed the Logistics Exchange Memorandum of Agreement (LEMOA) with the US. With the signing of COMCASA, India has gone one more step ahead in strengthening India-US military ties. LEMOA, COMCASA and BECA, or Basic Exchange and Cooperation Agreement for Geo-spatial Cooperation, are the three foundational defence pacts that a country needs to sign to obtain cutting-edge weapons and communications systems from the US. India hopes to move ahead on BECA too in near future.

### Europe law proposes to protect copyright

- European Parliament approved a new copyright legislation that increases the responsibilities of technology platforms and the rights of content producers.
- The law needs to go through further steps before it is implemented, but the news signals a government pushback against technology companies and their continued effort to remain passive conduits of information.



## Important highlights of laws:

- It is commonly known as the EU Copyright Directive, or the Directive on Copyright in the Digital Single Market.
- It proposes to make it necessary for online content providers to get authorisation from the content creators, without which the provider will have to prevent availability of that content.
- This would give publishers extended rights over online use of their content. Lawmakers have championed the need to balance profits for the creators and profits for platforms that make the content publicly available.
- These platforms are online service providers that aim to make profits from organising, promoting, or categorising copyright-protected content uploaded by users. These include Google, Facebook, Wikipedia, Reddit and YouTube.
- Article 11 allows publishers to gain copyright protection on their content that is being used by online content providers. The article still allows for the “legitimate private and non-commercial use of press publications by individual users” and “mere hyperlinks which are accompanied by individual words”.
- Article 13 has a more controversial stipulation, making online content platforms liable to take “effective and proportionate measures” on copyright violations. This shifts the burden from the copyright holder to the platforms, mandating them to remove violations “expeditiously” and demonstrate “best efforts... to prevent future availability.”
- Another key provision is one that exempts scientific researchers using text and data mining technologies, and educational purposes. The law also gives small enterprises more leeway in removal of unauthorised content.

## Analysis:

- Many publishers, music labels and the like argue that giants such as Facebook and Google make a lot of money from content that is made by others whose share is shrinking.
- On the other hand, technology platforms, academics, industry pioneers, and other rights organisations caution against threats to freedom of expression and to “open online sharing”. Especially frightening, they say, is the “upload filter” of Article 13, which would encourage companies to deploy algorithms that play it safe and over-restrict content.
- Campaigners have also highlighted that the resulting “censorship machines” will not be able to discern parodies, satire, and memes. “This would effectively turn the internet into a place where everything uploaded to the web must be cleared by lawyers before it can find an audience,” according to Google’s blog. Wikipedia even shut down some of its pages in protest.
- In 2013, Germany introduced a law that allowed publishers to stop search engines from using their news content beyond the headlines. The law was later watered down to allow for snippets of the content.
- In 2014, Spain passed a similar law giving publishers the right to levy licensing fees on online content aggregators. In response, Google News closed operations in Spain and removed Spanish media outlets from the platform. Both these laws have been dubbed the “Google tax”.

## Comprehensive Nuclear Test Ban Treaty

- UN chief Antonio Guterres reiterated his appeal to eight nations, including India and the US, to ratify the Comprehensive Nuclear-Test-Ban Treaty, saying the failure to bring it into force undermines global efforts to ensure a world free of atomic weapons.
- Although more than 180 countries have signed the CTBT, and mostly ratified it, the treaty can only enter into force after it is ratified by eight countries with nuclear technology capacity, namely China, Egypt, India, Iran, Israel, North Korea, Pakistan and the United States.

## About CTBT:

- CTBTO (comprehensive nuclear test ban treaty organisation) evolved as a multilateral verification system which includes a network of 300 stations in 89 countries to monitor the signs of nuclear explosion round the clock around the globe. It provides engagement with world scientific community to use the information gathered by the IMS and scientific applications.



- The International Monitoring System (IMS) traces the radioactivity by monitoring the earth's crust, atmosphere and oceans. This monitoring system also provides data that have many applications in the scientific community and also used in mitigating the dangers of disaster, climate change etc. The IMS provides a platform for data exchange and further boost the technological advancements to study the infrasound data, noble gas monitoring.

#### **Analysis:**

- Since its inception, India has had a number of reservations about the CTBT. While it has stood by its demand for a nuclear weapons-free world, various principled, procedural, political, and security concerns have stood in the way of its support for the CTBT. For these reasons, India is unlikely to be willing to participate in the Treaty in the event of a UNSC resolution.
- India's relationship with the CTBT has undergone distinct changes. In 1954, Indian Prime Minister Jawaharlal Nehru championed the cause of a nuclear test ban by calling for a "standstill" agreement. In 1993, India was among those that co-sponsored the call for a test ban treaty. However, in 1996, India's reservations about the Treaty blocked its adoption by the Conference on Disarmament (CD).
- India's principled opposition drew from its emphasis on universal and complete nuclear disarmament in a time-bound manner. India has traditionally believed this to be the end goal with the test ban just being a path to get there. But it did not insist on a complete disarmament clause in 1994, acknowledging that it was a "complex issue."
- The turning of the tides came with the indefinite extension of the NPT in 1995, which did not result in a firm commitment to nuclear disarmament by the P5 as sought by the 'have nots.' After the NPT extension, India felt that apart from the Fissile Material Cut-Off Treaty (FMCT), the only way to hold the P5 to a time-bound elimination of nuclear weapons clause was through the CTBT. While some of these concerns were incorporated into the CTBT text, the 'time bound' aspect was not. India saw the attempt at a test ban becoming an end in itself, while exacerbating technology differences between the 'haves' and 'have nots.' For instance, one of India's concerns was the possibility of those already possessing nuclear weapons upgrading their arsenals through sub-critical and laboratory simulated testing.
- Another major concern was Article XIV, the entry-into-force (EIF) clause, which India considered a violation of its right to voluntarily withhold participation in an international treaty. The treaty initially made ratification by states that were to be a part of the the CTBT's International Monitoring System (IMS) mandatory for the treaty's EIF. Because of this, India withdrew its participation from the IMS.
- On the security front, India thought that it faced uncertain dangers from Pakistan, and China, which had conducted nuclear tests even while the CTBT was being negotiated. As party to the CTBT, India would be waiving the possibility of testing and developing its own nuclear weapons whereas China would be able to retain its arsenal as per the the NPT. This was compounded by the fear of nuclear collusion between China and Pakistan.
- The 1998 nuclear test changed the nature of India's opposition to the CTBT. As a nuclear-armed state, its disarmament pledge was on weaker ground and its arguments against the CTBT now also applied to it. Although some in India continue to favour this as grounds for objection, it does not have the same conviction as it did pre-1998. A flipside to this is that signing the CTBT despite India's denunciation of it over the years would negatively affect India's traditional disarmament advocacy image. In this event, how plausible would the introduction of a step-by-step, time bound disarmament clause into the Treaty be?
- There are also those, particularly from India's scientific and security bureaucracies, who continue to believe that accepting the CTBT would hinder India's strategic nuclear program development and the option to test must be kept open. Others consider the hold up of CTBT ratification by the United States Congress and by China as diplomatically convenient for India in that this precludes an official Indian stand on the matter.

## **UN sees 70% chance of El Nino event this year**

- The World Meteorological Organization forecast "a 70% chance of an El Nino developing by the end of this year,".

- WMO does not expect the anticipated El Niño to be as powerful as the 2015-2016 event, but it will still have considerable impacts.
- The organization sees increased odds of higher surface temperatures in most of Asia-Pacific, Europe, North America, Africa and along much of South America's coastline.
- Interior parts of South America, Greenland, many south Pacific islands and some in the Caribbean were identified as possible exceptions.

## WHAT ARE EL NIÑO AND LA NIÑA?

- El Niño and La Niña are complex weather patterns characterized by changing ocean temperatures around the equator in the Pacific Ocean.
- Specifically, El Niño and La Niña are the opposite phases of the El Niño-Southern Oscillation cycle. In the area around the equator, normal weather patterns mean that winds carry warm water in the Pacific Ocean from the coasts of North and South America westward.
- But during El Niño, those winds weaken, and the east-west travel of warm water stops. When that happens, the winds reverse, and carry the warm water back towards the eastern Pacific, warming the ocean temperatures.
- El Niño is often followed by La Niña, an intensification of normal weather patterns, that causes a cooling of ocean temperatures, as the winds strengthen and blow all the warm water towards the west.

## Analysis:

- This warming and cooling of surface water temperatures not only impacts the oceans, but also how much it rains on land, causing either droughts or flooding.
- El Niño and its warm waters are frequently associated with drought, while La Niña is usually linked to increased flooding — but because the global weather system is very complex, this is not always the case.
- El Niño and La Niña most strongly affect countries around the equator such as those in Central and South America, the Caribbean, Southeast Asia, and East and Southern Africa. While unpredictable weather cause problems for everyone, it most severely affects people who live in regions that rely heavily on agriculture, as too much or too little rain can be devastating for crops.
- While drought can cause large crop failures, so can flooding. Flooding washes away seeds, and saturates soil with water so that crops cannot grow. If heavy rains follow periods of drought, precious topsoil can be washed away, too.
- In many of the world's poorest areas, people rely almost exclusively on rain-fed agriculture in order to feed their families. Concern works with many of these communities, and they're the ones that El Niño and La Niña hit hardest.
- Many of these communities are already working land that is poor or doesn't receive a lot of rain. Each season, they can only harvest enough food to last them until the following season, leaving them few or no reserves to fall back on. A single drought or flood can therefore have devastating effects on these vulnerable communities. One failed harvest can mean families run out of food within weeks and will have nothing to eat until the next harvest many months away. Widespread droughts, like those we've been seeing with this year's El Niño, can leave millions without food.

## 4th World Summit on Accreditation (WOSA-2018)

- 4th World Summit on Accreditation (WOSA-2018) was held in New Delhi.
- World Summit on Accreditation (WOSA) is a biennial Summit organised by NBA, which provides platform to stakeholders to share their knowledge and information on accreditation.

## Themes:

- Sub-Theme 1: Achieving Excellence through Learning Outcomes.
- Sub-Theme 2: Role of Industry in Technical Education.

- Sub-Theme 3: Ranking and Rating of Higher Education Institutions – Do they Have a Role in Quality Improvement?
- Sub-Theme 4: Linking Government Funding with Quality.
- Sub-Theme 5: Use of ICT in Accreditation in Large Jurisdictions.

#### **About National Board of Accreditation:**

- The National Board of Accreditation (NBA) is an autonomous organisation under Ministry of Human Resource Development engaged in quality assurance of the programs offered by the professional and technical institutions in India through accreditation.
- NBA has been accorded Permanent Signatory Status of Washington Accord since June, 2014.
- It has adopted internationally implemented outcome based assessment and accreditation, to ensure that the graduates of the NBA accredited programs are globally competent and relevant.

#### **Analysis**

- WOSA 2018 is an opportunity for academia and the industry to explore avenues for future partnerships and to create an environment for open dialogue to facilitate mobility of students and professionals world-wide to gain international experience. The participants will gain a greater understanding of prevailing global accreditation practices.
- The educational institutions will have an opportunity to interact with industry, policy makers and accreditation agencies from the globe and learn about their perspectives. It will also be a unique chance for the educational institutions to develop and fortify ties with the industry.
- Industry would be able to interact with educational institutions and accrediting agencies for exchanging views on their requirements of quality manpower and accreditation parameters.
- Accreditation agencies from across the world will have a common platform to share best practices, insights and to enhance their understanding of accreditation. The policy makers and regulatory bodies will have an in-depth appreciation of education systems operating in different countries and their strengths and weaknesses.

## **SCIENCE AFFAIRS**

### **Kepler space telescope**

- NASA's planet hunting Kepler space telescope — which has led to the discovery of over 2,300 planets so far — has woken up from sleep mode and has restarted its scientific operations. NASA has been closely monitoring the probe since it is expected to run out of fuel soon.
- The Kepler team is planning to collect as much science data as possible in its remaining time and beam it back to Earth before the loss of the fuel-powered thrusters that would make it difficult to aim the spacecraft for data transfer.

#### **About Kepler Space Telescope:**

- NASA's Kepler Space Telescope is an observatory in space dedicated to finding planets outside our solar system, particularly alien planets that are around the same size as Earth in the "habitable" regions of their parent star.
- In March 2018, NASA announced that Kepler is running low on fuel and is expected to cease operations within several months.
- Since the launch of the observatory in 2009, astronomers have discovered thousands of extra-solar planets, or exoplanets, through this telescope alone.

- Most of them are planets that are ranging between the size of Earth and Neptune (which itself is four times the size of Earth).
- Most of these planets were discovered in a small region of the constellation Cygnus, at which Kepler was pointed for the first four years of its mission.
- As of March 2018, Kepler had found 2,342 confirmed planets; add potential planets, and its find of exoworlds stands at 4,587.
- The mission continues to operate well beyond its scheduled end date, although problems with pointing in 2013 forced mission managers to create a K2 mission in which Kepler swings its view to different spots of the sky.
- In the early years of exoplanet hunting, astronomers were best able to find huge gas giants — Jupiter's size and larger — that were lurking close to their parent star.
- The addition of Kepler (as well as more sophisticated planet-hunting from the ground) means that more "super-Earths" have been found, or planets that are just slightly larger than Earth but have a rocky surface.
- Kepler's finds also allow astronomers to begin grouping exoplanets into types, which helps with understanding their origins.

## Eight Avian Species Declared “Extinct”

- Scientists have declared eight species of birds to be extinct in what are being seen as the first avian extinctions of the 21st century.

### Important points:

- These include Spix’s macaw, the Alagoas foliage-gleaner, the cryptic treehunter, the Pernambuco pygmy-owl, the poo-uli, or black-faced honeycreeper and the glaucous macaw.
- Five of these new extinctions have occurred in South America and have been attributed by scientists to deforestation.
- The study was conducted by non-profit “BirdLife International” and was published in the journal Biological Conservation.
- It assessed 51 species judged “critically endangered” on the International Union for the Conservation of Nature’s (IUCN) “Red List” by using a new statistical method.
- Four out of the eight species declared extinct belong to Brazil. The Spix’s macaw, a type of parrot, was last sighted in the wild in 2000. The Alagoas foliage-gleaner, a small forest bird, became extinct in 201
- The cryptic treehunter has not been seen in the wild since 2007, when its forest home in Murici in north-eastern Brazil was destroyed and replaced with sugar cane plantations and pasture.
- The fourth Brazilian species to go extinct is the Pernambuco pygmy-owl, a 15cm-tall owl that eats insects and hasn’t been seen in the Brazilian state of Pernambuco since 2002.
- The fifth South American species on the list is the glaucous macaw, once found in Argentina, Uruguay and Brazil before its palm grove habitat was destroyed to make space for farming.
- Another non-South American species on the list is the poo-uli, or black-faced honeycreeper, which was found on the island of Maui in Hawaii but was last sighted in 2004.

### About Birdlife International:

- BirdLife International (formerly the International Council for Bird Preservation) is a global partnership of conservation organisations that strives to conserve birds, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources. It is the world’s largest partnership of conservation organisations, with over 120 partner organisations.
- BirdLife International publishes a quarterly magazine, World Birdwatch, which contains recent news and authoritative articles about birds, their habitats, and their conservation around the world.
- BirdLife International is the official Red List authority for birds, for the International Union for Conservation of Nature.

## Apsara – U Reactor

- THE BHABHA Atomic Research Centre has recommissioned an upgraded version of ‘Apsara’, the country’s oldest research reactor that was decommissioned almost a decade ago.

### About Apsara Reactor:

- Apsara was first made operational on August 4, 1956, becoming Asia’s first research reactor at the time. The design of the pool-type reactor using enriched uranium fuel was conceptualised in 1955 by Dr Homi Bhabha himself.
- The name Apsara was coined by then Prime Minister Jawaharlal Nehru. Later, BARC set up two other research reactors Cirus and Dhruva. However, after having been in service for over five decades, the reactor was shut down in 2009 and decommissioned.

### Upgraded Version:

- The upgraded version, like its ancestor, is indigenously made and uses plate-type dispersion fuel elements made of low enriched uranium.
- By virtue of higher neutron flux, this reactor will increase indigenous production of radio-isotopes for medical application by about 50 per cent and would also be exclusively used for research in nuclear physics, material science and radiation shielding.
- The country began production of radioisotopes with the commissioning of Apsara in 1956. Today, radioisotopes are used in the field of medicine for diagnosis and therapy, food preservation, agriculture, and other industries.

## Man Portable Anti-Tank Guided Missile (MPATGM)

- India’s Defense Research and Development Organization (DRDO) conducted the first successful test firing of a new indigenously designed and developed man portable anti-tank guided missile (MPATGM) at the Ahmednagar test range in the western Indian state of Maharashtra.

### About MPATGM:

- The MPATGM is a third-generation anti-tank guided missile (ATGM), which has been under development by DRDO in partnership with Indian defense contractor VEM Technologies Ltd. since 2015.
- Fitted with a high-explosive anti-tank (HEAT) warhead, the MPATGM reportedly boasts a top attack capability and has a maximum engagement range of about 2.5 kilometers.
- DRDO has promised the Indian Army to hand over the first MPATGM prototype by the end of 2018 for user trials. Mass production of the missile is expected to begin in 2021.
- The Indian government scrapped a \$500 million deal with Rafael for 321 Spike ATGM systems and 8,356 missiles in favor of the MPATGM system in December 2017.
- The service is also concerned about delays in the induction of the new weapon system. Consequently, the Indian Army has been pushing for the acquisition of man portable ATGMs from abroad, despite heavy opposition from the DRDO. As I explained earlier this year:
- The Indian Army claims that it lacks 68,000 ATGMs of various types and around 850 launchers and is 60 percent short of its authorized holdings. Furthermore, its existing stockpile largely consists of obsolete second-generation Milan-2T and Konkurs anti-tank missiles.