CENTRAL BANK DIGITAL CURRENCY (CBDC)

Which countries have launched their CBDCs?

According to the Atlantic Council's CBDC tracker, nine countries or currency unions have launched their digital currencies, while 15 are in the pilot phase.

Additionally, 16, including India, are in the development stage, and 40 are in the research stage. Seven are inactive and two have cancelled any plans to launch it.

Among the nine that have launched it in the Bahamas, the seven Caribbean nations and Nigeria. Those piloting include South Africa, Saudi Arabia, the UAE, China, Russia, Sweden, Malaysia, Singapore &Thailand.

The Bahamas launched the world's first CBDC in October 2020 called the "Sand Dollar".

What are the glitches being faced?

China introduced the e-CNY, the digital form of the Chinese yuan, at the Winter Olympics in Beijing. It was reportedly being used to make over 2 million yuan of payments per day.

Citing bank officials, Bloomberg reported that the digital version of the East Caribbean dollar — DCash — has been offline for over a month and could take several more days to get restored.

The Central American nation of El Salvador 2021 adopted Bitcoin as a legal tender alongside the US dollar, and in addition to facing technical glitches on its Chivo payment platform that was to be used for making transactions, the country also ran into macroeconomic problems with the volatility of the Bitcoin.

The volatility and the speculative nature of private cryptocurrencies like Bitcoin, Ether, etc is what is pushing many central banks across the world to adopt their own digital currencies.

Where does India's plan stand?

During the Budget Speech, Finance Minister Nirmala Sitharaman announced that RBI would launch the CBDC in the upcoming fiscal.

While the RBI is still working on the finalities, it is understood that the CBDC will be based on Blockchain technology.

Who will launch the CBDC?

The Reserve Bank of India will launch the CBDC in the upcoming financial year.

This follows the government's plans to launch the CBDC that will be backed by blockchain technology.

What is CBDC?

CBDC is a legal tender issued by a central bank in a digital form.

It is similar to a fiat currency issued on paper and is interchangeable with any other fiat currency.

What is the need for CBDC?

The goal is to provide users with convenience and security of digital as well as the regulated, reserve-backed circulation of the traditional banking system.

The RBI has on several occasions flagged concerns of money laundering, terror financing, tax evasion, etc with private cryptocurrencies like Bitcoin, Ether, etc and had planned to announce its own CBDC.

What does this change for citizens?

Prime Minister Narendra Modi has said that with the launch of the revamped digital version of the Indian rupee, people could convert digital currency to physical currency and vice-versa with ease, and this will strengthen India's digital economy and ecosystem.

Digital payments and online transfer of funds will be more secure with the launch of CBDC, he said, adding this will also streamline the global digital payment system.

Forest Fires

Why are fires raging in Himachal forests?

- Himachal has witnessed almost 750 fires in April. These fires have ravaged around 5,662 hectares in the forests of Shimla, Chamba, Bilaspur, Dharamshala, Hamirpur, Kullu Mandi, Rampur, and Nahan and the Great Himalayan National Park at Shamshi in the Kullu region.
- Usually, the forests are humid during April. But in 2022, the last rainfall took place in February. This led to a rain deficiency of 90-94 per cent in April against 84 per cent in the corresponding period last year. The chir pine forests were crackling dry, there is zero humidity – one spark and the entire forest caught fire.
- Human negligence is also contributing to these fires. Even a cigarette butt or the act of setting dry leaves on fire can trigger a massive fire.

What causes forest fires?

- The forest fire season in India lasts from November to June. Several factors like temperatures, precipitation, vegetation, and moisture contribute to the scale and frequency of these fires.
- According to the Forest Survey of India, nearly 36 per cent of India's forests are prone to frequent fires. Most forest fires are man-made due to changes in agriculture and unchecked land-use patterns.
- Higher fire incidents are reported in March, April and May due to ample availability of dry biomass (fuel load) following the end of winter and the ongoing summer season.

How vulnerable are forests in Uttarakhand and Himachal?

- Out of the total forest land in Uttarakhand, 26 per cent consists of pine trees. Dry pine leaves are highly inflammable and significantly increase the fuel load.
- In Himachal, of the 196 forest ranges in Himachal Pradesh, 80 are vulnerable to fires. The chir pine forests which make up 15 per cent of Himachal's forests are most prone to fires. The chirforests are spread over an area of 1258.85 sq km, which is about 3.4 per cent of the total forest area of the state.

How are forest fires classified?

Forest fires are broadly categorised into three categories – ground, surface and crown fire.

- Fires that burn organic material in the soil are called ground fires, and they burn slowly, under vegetation.
- Surface fires are caused largely by the burning of dry leaves, branches and other materials on the ground. Such fires spread swiftly, as in the case of fires in Himachal.
- Crown fires burn quickly, from one tree top to another and have huge flames with intense heat. Such fires are rare in India.

How have other places prone to forest fires fared so far?

- Apart from Himachal and Uttarakhand, Assam, Madhya Pradesh, Maharashtra, Tripura, Mizoram and Odisha report frequent forest fires annually.
- Incidentally, Madhya Pradesh, Uttarakhand, Odisha — along with Chhattisgarh and Maharashtra — have been the top five states reporting a high number of large forest fires ranging between 143 to 441 between November 2021 and April 2022.

How can these fires be prevented and doused?

- The Ministry of Environment, Forest and Climate Change lists few methods to prevent and control a forest fire:
  - construction of watch towers for early detection
  - deployment of fire watchers
  - creation and maintenance of fire lines
  - involvement of local communities
- Most of the fires are being brought under control manually with the help of forest guards, labourers and volunteers.

Digital Nomads Visa

Countries that provide nomad visas

- Italy in March 2022, released a new permit for non-EU nationals, or digital nomads, who can stay in the country for up to 90 days without a visa.
- Antigua and Barbuda offer a digital nomad visa for two years where the travellers will be required to maintain their health insurance.
- Barbados offers a year-long remote working visa which can be extended further.
- Other countries offering nomad visas are Croatia, Costa Rica, Georgia, Hungary, Iceland, Mauritius, Norway, and Spain among many others.

Who are digital nomads?

- Digital Nomads are people who work remotely while travelling to different places and spending their earned income in the country they are travelling to.
- As the pandemic took place most of the workspaces were shifted online, while some offices have begun to open, and most organisations have declared remote work.
- Now as the world has moved towards getting vaccinated and international borders have opened up, people can continue doing their regular jobs remotely from anywhere in the world.

How does a digital nomad visa function?

- Each country issuing digital nomad visas has its cities and regulations. Some allow eligible citizens to apply online. Others require applying in person to the embassy or consulate.
- As a general rule, the requester needs:
  - A valid passport that meets the requirements
  - Proof of regular income abroad
- Not everyone is eligible for a digital nomad visa, even if the person can prove they are working remotely. Eligibility depends on several other factors, including
  - The nationality of the applicant
  - History of applicants' visa applications
  - If the applicant is considered to be a threat to the safety or health of the country of destination

About these visas

- Indonesia has announced "Digital Nomad Visas" for travellers, to attract more foreign tourists.
  - The Digital Nomad Visa would allow remote workers to stay in Indonesia, including Bali, tax-free.
  - The visa will be applicable for five years. This would make Indonesia's visa one of the longest digital nomad visas compared to other countries.
  - Indonesia aims to bring in over 3.6 million overseas travellers into the country over the next year to explore spiritual retreats as well as the eco-tourism of Indonesia.
- While Bali is one of the most famous locations in the country for beaches and bars, Indonesia is looking to promote another element through these visas — the spiritual element.

Nairobi Flies

What are Nairobi flies?

- Nairobi flies, also called Kenyan flies or dragon bugs, are small, beetle-like insects that belong to two species, PaederuEximiusus and Paederussabaeus.
- They are orange and black, and thrive in areas with high rainfall, as has been witnessed in Sikkim in the past few weeks.
- Like most insects, the beetles are attracted by bright light.

How are humans affected by them?

- The insects attack pests that consume crops and are beneficial for humans — but at times, they come in contact with humans directly are cause harm.
- These flies do not bite, but if disturbed while sitting on anyone's skin, they release a potent acidic substance that causes burns.
  - This substance is called pederin and can irritate if it comes in contact with the skin, leading to lesions or unusual marks or colouring on the skin.
  - The skin begins to heal in a week or two, but some secondary infections can occur, especially if the victim scratches the irritated skin.

Outbreaks of the disease

- Major outbreaks have happened in Kenya and other parts of eastern Africa. In 1998, unusually heavy rain caused a large number of insects to come into the region, reported the Associated Press.
- Outside Africa, outbreaks have happened in India, Japan, Israel, and Paraguay in the past.

Ways to protect oneself against Nairobi flies

- Sleeping under mosquito nets can help.
- If a fly lands on a person, it should be gently brushed off, and should not be disturbed or touched to reduce the chances of isitleasingpederin.
- The area where the flies sits should be washed with soap and water.
- If they are squelched and end up leaving toxic fluids on the skin, care should be taken that unwashed hands do not touch any other part of the body, particularly the eyes.

Prevention of Money Laundering Act (PMLA)

What is the PMLA?

The Act was enacted in 2002 in response to India's global commitment (including the Vienna Convention) to combat the menace of money laundering.

The statement of objects and reasons of the PMLA Bill of 1999 refers to various international conventions and instruments dealing primarily with money laundering related to drug and narcotics crimes.

It includes conventions like the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988; the Basle Statement of Principles, 1989; the Forty Recommendations of the Financial Action Task Force on Money Laundering, 1990; the Political Declaration and Global Program of Action adopted by the United Nations General Assembly in 1990; the Resolution passed at the UN Special Session on countering World Drug Problem Together, etc.

What is the offence of money laundering?

A person is guilty of money-laundering if he or she "directly or indirectly attempts to indulge or knowingly assists" in any activity connected with the "proceeds of crime", including its concealment, possession, or acquisition or use, projecting or claiming it as untainted property.

It has been clarified that the activity connected with proceeds of crime continues till a person is directly or indirectly enjoying them by concealment, possession, acquisition, use or projecting or claiming them as untainted property.

What is the provision of bail under the act?

According to PMLA Section 45, there are two conditions that must be satisfied for a court to grant bail.

First, the public prosecutor must be heard

Second, the court must be satisfied that there are reasonable grounds that the accused is not guilty of alleged offence.

The law has faced several criticisms, which include non-reporting of grounds for arrest, arrest of persons without ECIR copy, strict bail conditions etc.

What are the norms for arrest?

According to the act, senior officials, authorised by the central government, may arrest a person if they have, on the basis of material in their possession, "reason to believe" (to be recorded in writing) that he or she has been guilty of an offence punishable under PMLA.

The senior officials of the ranks of director, deputy director, assistant director or any other will have to forward a copy of the order along with the material in their possession to the Adjudicating Authority in a sealed envelope immediately after the arrest.

Also, every person arrested will have to be taken to a Special Court or Judicial Magistrate or a Metropolitan Magistrate, depending on the jurisdiction, within 24 hours (excluding the time necessary for the journey from the place of arrest to the court).

What is the punishment for money laundering?

According to the PLMA Act, the guilty "shall be punishable with rigorous imprisonment for a term which shall not be less than three years but which may extend to seven years", besides a fine.

INDIA-NATO

About NATO

- The North Atlantic Treaty Organisation, or NATO, is a political and military alliance of 28 European countries and two countries in North America (the United States and Canada).
- It was set up in 1949 by the US, Canada, and several western European nations to ensure their collective security against the Soviet Union. It was the US's first peacetime military alliance outside the western hemisphere.
- Thirty countries are currently members of NATO, which is headquartered in Brussels, Belgium. The headquarters of the Allied Command Operations is near Mons, also in Belgium.

NATO's collective defence

- Members of NATO are committed to mutual defence in response to an attack by any external party.
- Collective defence lies at the very heart of NATO, "a unique and enduring principle that binds its members together, committing them to protect each other and setting a spirit of solidarity within the Alliance".

Issues

- From NATO's perspective, it was not China, but Russia whose aggressive actions continued to be the main threat to Euro-Atlantic security, and NATO had faced difficulties to convene meetings of the NATO-Russia Council due to Russian refusal to place issues such as Ukraine and Intermediate-Range Nuclear Forces Treaty on the agenda.
- Given the divergence among NATO countries, its view on China was seen as mixed; while it did deliberate on China's rise, the conclusion was that China presented both a challenge and an opportunity.
- In Afghanistan, NATO saw the Taliban as a political entity, which was not in line with India's stance. This was almost two years before the Taliban announced an interim government in Afghanistan in September 2021.

India's engagement in the past

- The first round of dialogue was finalised for December 12, 2019, by the Indian mission in Brussels after it received a draft agenda for the meeting from NATO.
- Upon receipt of the draft agenda, an inter-ministerial meeting was convened with representatives from the External Affairs and Defence ministries, and the National Security Council Secretariat.
- The government was of the view that engaging NATO in a political dialogue would provide India with an opportunity to bring about a balance in NATO's perceptions about the situation in regions and issues of concern to India.

Significance of India's talks with NATO

- India's talks with NATO hold significance given that the North Atlantic alliance has been engaging both China and Pakistan in bilateral dialogue.
- Until December 2019, NATO had held nine rounds of talks with Beijing, and the Chinese Ambassador in Brussels and NATO's Deputy Secretary General engaged with each other every quarter.
- NATO had also been in political dialogue and military cooperation with Pakistan; it opened selective training for Pakistani officers and its military delegation visited Pakistan in November 2019 for military staff talks.
- There was a view here that given the role of Beijing and Islamabad in New Delhi's strategic imperatives, reaching out to NATO would add a key dimension to India's growing engagement with the US and Europe.

Lumpy Skin Disease (LSD)

Why in news?

- Nearly 3,000 cattle have died in Rajasthan and Gujarat due to a viral infection called the Lumpy Skin Disease (LSD) that has spread across the states.
- In view of the increasing number of cases related to lumpy skin disease (LSD), Uttar Pradesh Chief Minister Yogi Adityanath has ordered the suspension of all cattle fairs in the state, till the situation returns to normal.

What is the Lumpy Skin Disease?

- According to a report by GAVI, the Global Alliance for Vaccines and Immunisation, the Lumpy Skin Disease (LSD) disease is caused by a virus called the Capri poxvirus and is "an emerging threat to livestock worldwide".
- It is genetically related to the goat pox and sheep pox virus family.

Outbreak of LSD

- The disease has been endemic in most African countries, and since 2012 it has spread rapidly through the Middle East, Southeast Europe and West and Central Asia.
- Since 2019, several outbreaks of LSD have been reported in Asia. In May'22, Pakistan's Punjab also reported the deaths of over 300 cows due to LSD.
- In September 2020, a strain of the virus was discovered in Maharashtra. Gujarat too has reported cases over the last few years sporadically, but currently, the point of concern is the number of deaths being reported, and whether vaccination catches up to the rate at which the disease is spreading.
- According to the World Organisation for Animal Health (WOAH), of which India is a member, mortality rates of 1 to 5 per cent are considered usual.
- The disease is not zoonotic, meaning it does not spread from animals to humans, and humans cannot get infected with it.

Infection of disease

- LSD infects cattle and water buffalo mainly through vectors such as blood-feeding insects. Signs of infection include the appearance of circular, firm nodes on the animal's hide or skin that look similar to lumps.
- Infected animals immediately start losing weight and may have fever and lesions in the mouth, along with a reduced milk yield.
- Other symptoms include excessive nasal and salivary secretion. Pregnant cows and buffaloes often suffer miscarriage and, in some cases, diseased animals can die due to it as well.

Its Prevention

- Successful control and eradication of LSD relies on "early detection...followed by a rapid and widespread vaccination campaign", as per the WOAH.
- Once an animal has recovered, it is well protected and cannot be the source of infection for other animals.
- In measures to prevent against the viral infection is to sanitise cattle-sheds by eliminating vectors through application of insecticides and spraying disinfectant chemicals.
- Isolate the infected cattle immediately from the healthy stock and contact the nearest veterinarian for treatment of the infected animal. This is necessary as otherwise the virus may prove fatal.
- The cattle with healthy immune systems will recover from the disease in some days.

Marburg Virus Disease (MVD)

What is the Marburg Virus Disease

- Marburg virus disease (MVD), earlier known as Marburg haemorrhagic fever, is a severe, often fatal hemorrhagic fever, according to the WHO.
- Marburg, like Ebola, is a filovirus; and both diseases are clinically similar.
- Rousettus fruit bats are considered the natural hosts for the Marburg virus. However, African green monkeys imported from Uganda were the source of the first human infection.
- It was first detected in 1967 after simultaneous outbreaks in Marburg and Frankfurt in Germany; and in Belgrade, Serbia.
- The disease has an average fatality rate of around 50%. However, it can be as low as 24% or as high as 88% depending on virus strain and case management.

What are the symptoms of Marburg virus disease?

- After the onset of symptoms, which can begin anytime between 2 to 21 days, MVD can manifest itself in the form of high fever, muscle aches and severe headache.
- Around the third day, patients report abdominal pain, vomiting, severe watery diarrhoea and cramping.
- Between days 5 and 7, patients report bleeding from the nose, gums and blood appearing in vomits and faeces.
- Severe blood loss leads to death, often between 8 to 9 days after symptoms begin.

How can Marburg virus disease be diagnosed and treated?

- It is difficult to clinically distinguish MVD from diseases such as malaria, typhoid fever and other viral haemorrhagic fevers.
- However, it is confirmed by lab testing of samples, which like Coronavirus and Ebola are extreme biohazard risks.
- There is no approved antiviral treatment or vaccine for MVD as of now. It can be managed with supportive care.
- According to the WHO, rehydration with oral or intravenous fluids, and treatment of specific symptoms can help prevent death.

MVD in India

- Biologists have found that bats and humans in northeast India carry antibodies to deadly viruses such as Ebola and Marburg.
- An international research team, including scientists from the National Centre for Biological Sciences in Bangalore and Sastra University in Tamil Nadu, India, tested blood samples from hunted bat species and humans who hunt bats in Nagaland.
- No traces of viral genetic material were detected in the bat blood or tissues. However, the researchers found virus-specific antibodies in 5.9 per cent of the human samples, 6.2 per cent of the E. spelaea samples and 13.3 per cent of the R. leschenaultii samples.