



WEEKLY CURRENT AFFAIRS

NOVEMBER, 2023

Week-2

8-14 Nov., 2023

★★ Useful for ★★

**CSE, ESE, PSUs, State Services Exams,
SSC and Banking Exams**

8th NOVEMBER, 2023

Wolbachia Method

- **Context:** Researchers in Indonesia have found a way to fight disease-bearing mosquitoes, by breeding a species of mosquito which carries a certain kind of bacteria that prevents viruses like dengue from growing inside them.

Key Highlights:

- Wolbachia is a common bacteria that occurs naturally in 60% of insect species, including some mosquitoes, fruit flies, moths, dragonflies and butterflies.
- Wolbachia is usually not found in the *Aedes aegypti* mosquito (the primary species responsible for transmitting human viruses such as Zika, dengue, chikungunya and yellow fever).
- Wolbachia is safe for humans, animals and the environment.
- In the Wolbachia method, *Aedes aegypti* mosquitoes are introduced with the bacterium in the lab and then researchers release them into the wild.
- Now, the Wolbachia-infected mosquitoes breed with their wild counterparts which result in a growing percentage of the bacterium in those mosquitoes.
- This makes it harder for viruses to reproduce inside the mosquitoes. And the mosquitoes are much less likely to spread viruses from person to person.
- Researchers found that using the Wolbachia method reduced the occurrence of dengue in the treated population by 77%.
- However Researchers have not understood why the Wolbachia bacterium interferes with the transmission of dengue. One theory is that the bacterium prevents dengue viruses from replicating in mosquito cells.

Appointment of Chief Information Commissioner

- **Context:** Shri Heeralal Samariya has been appointed as the Chief Information Commissioner in the Central Information Commission.

Key Highlights:

- The Central Information Commission was constituted in 2005 under the Right to Information Act, 2005.
- The jurisdiction of the Commission extends over all Central Public Authorities.
- The Commission has certain powers and functions mentioned in the RTI Act, 2005. These broadly relate to adjudication in second appeal for giving information; direction for record keeping, suo motu disclosures receiving and enquiring into a complaint on inability to file RTI etc; imposition of penalties and Monitoring and Reporting including preparation of an Annual Report.
- The decisions of the Commission are final and binding.
- The Commission is headed by the Chief Information Commissioner and can have a maximum of 10 Information Commissioners.
- The CIC is appointed by the President, on the recommendation of a committee including the prime minister, leader of opposition in the Lok Sabha, and a Union cabinet minister nominated by the prime minister.
- Information Commissioner shall be a person of eminence in public life with wide knowledge and experience in law, science and technology, social service, management, journalism, mass-media or administration and governance.
- Information Commissioner shall not be a Member of Parliament or Member of the Legislature of any State or Union Territory as the case may be, or hold any other office of profit or connected with any political party or carrying on any business or pursuing any profession.
- He/She shall hold office for a period of three years from the date on which he enters upon his office
- He/She shall be removed from his office only by order of the President on the ground of proved misbehavior or incapacity.

Deep Fake

- **Context:** The recent controversy pertaining to the viral deepfake video of an actor has triggered concerns about online safety, particularly of women.

Key Highlights:

- Deepfakes use a form of artificial intelligence called deep learning to make images of fake event.
- Deepfake technology utilises advanced machine learning algorithms to create or manipulate video content, thereby making it appear as if individuals are saying or doing things they never actually did.
- Most of the deepfake videos have been pornographic in nature. But during elections time, digitally altered clips of politicians are also circulated to falsely attribute a statement or promise to them.

9th NOVEMBER, 2023

Eastern Maritime Corridor (EMC)

- **Context:** As part of the Eastern Maritime Corridor (EMC), a trial run of a ship was conducted between Chennai port in India and Vladivostok in Russia.

Key Highlights:

- Eastern Maritime Corridor (EMC) is a proposed sea route between Chennai, India, and Vladivostok, Russia.
- Passes through Sea of Japan, East and the South China Sea through Malacca Strait to reach the Bay of Bengal and then cut across through the Andaman and Nicobar archipelago to reach Chennai.
- This route is advantageous as: Distance is reduced by 40% from 9,450 nautical miles to 5,647 nautical miles and shortens the transportation time by up to 16 days.
- Vladivostok Port provides access to resource-rich regions, offering opportunities in sectors like energy, mining, and technology for Indian businesses.
- India is building nuclear power plants with Russia's collaboration in Kudankulam on the sea coast in

Tamil Nadu's Tirunelveli district. The opening of a sea route is likely to help in the project.

Bharat Atta: wheat flour scheme

- **Context:** The Government of India has launched a new wheat flour scheme called "Bharat Atta."

Key Highlights:

- Bharat Atta is a fortified wheat flour that is made with a blend of wheat, rice, and pulses. It is a good source of protein, iron, and other essential nutrients.
- To provide affordable wheat flour to the poor and vulnerable sections of the society.
- Under this scheme, Bharat Atta will be available at a subsidized rate. The atta will be made available through outlets such as Kendriya Bhandar, National Agricultural Cooperative Marketing Federation (NAFED) and National Cooperative Consumers' Federation (NCCF).
- These agencies will utilize their extensive network of 800 mobile vans and 2,000-odd outlets spread across the country to effectively distribute the subsidized wheat flour.
- This scheme will help in moderating the prices of essential food items which will in turn ease the financial burden on consumers.

Krishi 24/7: The first-ever AI-powered solution

- **Context:** Department of Agriculture and Farmers Welfare (DA&FW) has launched Krishi 24/7, first-ever AI-powered solution for automated agricultural news monitoring and analysis

Key Highlights:

- It is an AI powered tool designed to automatically monitor and analyze agricultural news.
- Department of Agriculture and Farmers Welfare (DA&FW) in partnership with Wadhvani Institute for Artificial Intelligence (Wadhvani AI)
- It scans news articles in multiple languages and translates them into English.

- Extracts essential information from news articles including headline, crop name, event type, date, location, severity, summary and source link to ensure the government receives timely updates.
- Krishi 24/7 is an efficient mechanism for the government to identify and handle important agricultural news for quick decision-making.

10th NOVEMBER, 2023

Environmental DNA

- **Context:** Researchers at the Laboratory for the Conservation of Endangered Species (LaCONES) have developed a method for detecting all life forms in an ecosystem using environmental DNA (eDNA).

Key Highlights:

- Environmental DNA (eDNA) refers to genetic material that organisms shed into their environment. It can be found in various environmental sources such as soil, water or air.
- This genetic material is derived from shed skin cells, mucus, urine, feces, hair or any organic material released by organisms into their surroundings.
- eDNA is a powerful tool used in environmental monitoring and biodiversity studies. It allows scientists to detect the presence of organisms without directly observing them.
- Researcher have developed a method to detect all life forms within an ecosystem using environmental DNA (eDNA).
- This method involves collecting water, soil or air samples and then sequencing the DNA fragments to evaluate the total biodiversity in the ecosystem.
- It can detect a broad spectrum of organisms, encompassing viruses, bacteria, archaea, fungi, plants, insects, birds, fish, and various animals.
- The technique is non-invasive, cost-effective, rapid, and scalable. It offers an effective means for monitoring and conserving biodiversity in both freshwater and marine ecosystems.

About Laboratory for the Conservation of Endangered Species (LaCONES):

- LaCONES is a dedicated Laboratory of CSIR's Centre for Cellular and Molecular Biology (CCMB) established in 1998
- It is India's only research facility engaged in conservation and preservation of wildlife and its resources.
- India's first genetic bank for wildlife conservation, the National wildlife genetic resource bank (NWGRB) was established at LaCONES in 2018.

Women for Water, Water for Women Campaign

- **Context:** The Ministry of Housing and Urban Affairs (MoHUA) has launched the "Women for Water, Water for Women Campaign"

Key Highlights:

- It was launched by Ministry of Housing and Urban Affairs (MoHUA) under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) in partnership with the National Urban Livelihood Mission (NULM)
- To provide a platform for inclusion of women in water governance.
- To instill a sense of ownership and belonging among women towards water infrastructure.
- Focus Areas of the campaign is to familiarizing the women with functioning of Water Treatment Plants & water testing facilities, to promote inclusivity & involvement through souvenirs & articles created by Women SHGs and familiarizing & educating the women about AMRUT scheme & its impact on water infrastructure.
- Phase 1 of the campaign will witness participation from all States and Union Territories except states under Model code of Conduct (Telangana, Rajasthan, Chhattisgarh, MP and Mizoram)

11th NOVEMBER, 2023

National Coal Index

- **Context:** The National Coal Index (NCI) has increased first time since April 2023.

Key Highlights:

- It was started in 4th June 2020 by Ministry of Coal
- The concept and design of the Index have been developed by the Indian Statistical Institute, Kolkata.
- It is a price index (released monthly) which reflects the change of price level of coal in a particular month relative to the fixed base year.
- The base year for the NCI is Financial Year 2017-18
- The Coal Index is the base indicator for the purpose of taxation.
- This Index will be helpful for future calculation of upfront amount and intrinsic value of mine.
- This index can be basis for calculation of annual escalation (monthly payment).
- The upward movement of the National Coal index indicates rising demand of coal because of upcoming festive season and winter in the country. It will encourage coal producer to take maximum benefit by further scaling-up domestic coal production to meet the growing energy demands.

India - U.S. Defense Acceleration Ecosystem (INDUS-X)

- **Context:** Innovations for Defence Excellence (iDEX) has organized the first INDUS-X Investors Meet at New Delhi.

Key Highlights:

- It was launched in June 2023 and led by India's Innovations for Defense Excellence (iDEX) and the Office of the Secretary of Defense (OSD)
- To expand strategic technology partnership and defense industrial cooperation between governments,

businesses and academic institutions of India and US

- NDUS-X will organize several initiatives such as joint prize challenges for start-ups, roundtable events, mentor-protege initiatives between major primes and startups, formation of a Senior Advisory Group among others.
- This initiative builds on a commitment by the U.S. and Indian National Security Advisors in January 2023 and committed to launch an "Innovation Bridge" to connect U.S. and Indian defence start-ups as part of the U.S.-India initiative on Critical and Emerging Technology (iCET)

UNEP Production Gap Report 2023

- **Context:** The UN Environment Programme (UNEP) has published the Production Gap Report 2023.

Key Highlights:

- It was prepared by UNEP, Stockholm Environment Institute (SEI), Climate Analytics, E3G and International Institute for Sustainable Development.
- To track the discrepancy between governments' planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C
- The report analyzes emissions trends for 20 major fossil-fuel-producing countries. One among them is India.
- Under the Paris Agreement, countries have committed to a long-term goal of limiting average global temperature to less than two degrees Celsius above pre-industrial levels and even try to limit them further to 1.5 degrees Celsius. However, the report analyzed the 20 major fossil fuel producing countries.
- It found that these countries plan to produce more than double the amount of fossil fuels in 2030 than would be consistent with limiting warming to 1.5°C and 69% more than that would be consistent with 2 degrees Celsius.

- Recommendations given by the Production Gap Report 2023 is to Increase transparency in the plans, projections and support for fossil fuel production and aim for a near total phase-out of coal production and use by 2040 and a combined reduction in oil and gas production and use by three-quarters by 2050 from 2020 levels.

12th NOVEMBER, 2023

Subansiri Lower Hydroelectric Project

- **Context:** The Subansiri Lower Hydroelectric Project has experienced a setback due to a landslide that blocked the only operational diversion tunnel. This obstruction halted the flow of water downstream, impacting the Subansiri River.

Key Highlights:

- Subansiri Lower Hydroelectric Project is an under construction gravity dam on the Subansiri River in Arunachal Pradesh and Assam
- A gravity dam is a dam constructed from concrete or stone-masonry. It is designed to hold back water by using only the weight of the material to resist the horizontal pressure of water pushing against it.
- It is executed by National Hydroelectric Power Corporation (NHPC)
- Once completed, it will be the largest hydroelectric project in India

Surety Bond: NHA Accepts First Insurance Surety Bond

- **Context:** National Highways Authority of India (NHA) has accepted Insurance Surety Bond for the monetization program of the upcoming bid of Toll Operate Transfer (TOT) bundle.

Key Highlights:

- Surety Bonds are a type of insurance policy protecting parties involved in a transaction or contract from potential financial losses due to a breach of contract or other types of non-performance.

- Will assist in developing an alternative to bank guarantees
- Helps address the large liquidity and funding requirements of the infrastructure sector.

Parties Involved:

1. **Principal:** The party that purchases the bond and undertakes an obligation to perform an act as promised.
2. **Surety:** The insurance company or surety company that guarantees the obligation will be performed. If the principal fails to perform the act as promised, the surety is contractually liable for losses sustained.
3. **Obligee:** The party who requires, and often receives the benefit of the surety bond. For most surety bonds, the obligee is a local, state or federal government organization.

Digital Advertisement Policy, 2023

- **Context:** The Ministry of Information and Broadcasting approved "Digital Advertisement Policy, 2023 to enable and empower the Central Bureau of Communication (CBC) to undertake campaigns in the Digital Media Space.

Key Highlights:

- It has been formulated after wide ranging discussions with multiple stakeholders and outlines the roadmap of enhancing the Digital Outreach of the Government of India and improving information dissemination to the Citizens.
- It introduces competitive bidding for rate discovery, ensuring transparency and efficiency. Rates discovered through this process will remain valid for three years and will be applicable to all eligible agencies.
- It marks a pivotal moment in CBC's mission to disseminate information and create awareness regarding various schemes, programs, and policies of the Government of India in response to the evolving media landscape and the increased digitalization of media consumption.

- The Policy also recognizes the dynamic nature of the digital landscape and empowers CBC to on board New and Innovative Communication Platforms in the Digital Space with the approval of a duly constituted committee.
- The Policy will enable CBC to empanel agencies and organisations in the OTT and Video on Demand Space.
- CBC will also be able to leverage the growing number of listeners to Podcasts and Digital Audio platforms through empanelment of Digital Audio platforms.
- Apart from rationalising its process of empanelling Internet Websites, CBC now for the first time will be able to channelize its public service campaign messages through Mobile Applications too.
- The policy also empowers CBC to empanel Digital Media Agencies to enhance its outreach through the various platforms.

13th NOVEMBER, 2023

Operation 'Nanhe Faristey'

- **Context:** Railway Protection Force reunited over 601 children with their families under Operation 'Nanhe Faristey'.

Key Highlights:

- This initiative was introduced on the Indian Railways platform.
- It aims to rescue and safeguard children in need of care and protection who encountered by the railway system.
- Trained personnel rescue the children who have come to railway stations without informing their parents, because of some family issues or in search of a better life.
- Under this program, these children were promptly rescued and transferred to the relevant authorities before being reunited with their families.

Auroras: Ladakh observatories spot red aurora

- **Context:** The Hanle and Merak observatories in Ladakh have captured images of an intense red aurora.

Key Highlights:

- Auroras are patterns of bright lights in the sky. They are seen when particles ejected by the Sun interact with the magnetic field around the Earth. The phenomenon is usually visible closer to the poles.
- The colours of auroras are produced by the type of gas molecules in the Earth's atmosphere that the charged particles interact with. Common colours include green, pink, purple and red.
- Auroras are not just something that happens on Earth. If a planet has an atmosphere and magnetic field, they probably have auroras.
- Geomagnetic storms, triggered by solar events like coronal mass ejections (CMEs) and solar flares, enhance auroral activity.
- Scientists study auroras to gain insights into the Earth's magnetosphere, the solar-terrestrial relationship, and the behaviour of charged particles in the atmosphere. They also use them as indicators of solar activity.

14th NOVEMBER, 2023

Asia-Pacific Economic Cooperation (APEC)

- **Context:** The Asia-Pacific Economic Cooperation (APEC) grouping is meeting in San Francisco in the United States.

Key Highlights:

- APEC was established in 1989 as a regional economic forum
- Its aim is to leverage the growing interdependence of the Asia-Pacific and create greater prosperity for the people of the region through regional economic integration

- Seoul Declaration (1991): As per this, APEC member economies proclaimed the creation of a liberalized free trade area around the Pacific Rim as the principle objective.
- Its members are: Australia, Brunei, New Zealand, Papua New Guinea, Hong Kong (as part of China), the Philippines, Indonesia, Malaysia, Vietnam, Singapore, Thailand, Chinese Taipei (Taiwan), China, Japan, South Korea, Russia, Canada, the United States, Mexico, Peru and Chile.
- India is not a member of the group (India has expressed interest in joining APEC and made a formal request in 1991)
- APEC economies make up roughly 60% of global GDP. As of 2018, they represented 48 percent of global trade.

Exercise BONGOSAGAR

- **Context:** The 4th edition of Exercise BONGOSAGAR was conducted in the Northern Bay of Bengal.

Key Highlights:

- India and Bangladesh conducted Naval Exercise 'BONGOSAGAR'
- To develop a high degree of interoperability and joint operational skills through the conduct of a wide spectrum of maritime exercises and operations between the two navies
- Indian Navy Ships Kuthar, Kiltan and Maritime Patrol Aircraft (MPA) Dornier participated in the exercise.
- Other exercises between India and Bangladesh is Exercise SAMPRITI: It is an annual joint military exercise between India and Bangladesh

