MADE EASY

WEEKLY CURRENT AFFAIRS

OCTOBER, 2023

Week-1

1-7 Oct., 2023

Useful for

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

1st OCTOBER, 2023

Protection of Children from Sexual Offences (POCSO) Act

- **Context:** The Law Commission has recommended the government to retain the existing age of consent under the Protection of Children from Sexual Offences (POCSO) Act.

Key Highlights:

- The Law Commission has recommended the government to retain the existing age of consent under the Protection of Children from Sexual Offences (POCSO) Act.The current age of consent in India is 18 years.
- It said that reducing the age of consent would have a direct and negative bearing on the fight against child marriage and child trafficking.
- The Law panel suggested amendments in the POCSO Act, 2012 for cases where children aged 16 to 18 give tacit approval, not legal consent.
- The panel also advised the courts to tread with caution even in cases related to adolescent love, where criminal intention may be missing. This will ensure that the law is balanced, thus safeguarding the best interests of the child.

About Protection of Children from Sexual Offences (POCSO) Act:

- The Protection of Children from Sexual Offences Act (POCSO Act) enacted in 2012. The Act was formulated to effectively address sexual abuse and sexual exploitation of children and pornography.
- In 2019, The Act has been amended. The amendment contains provisions for enhancement of punishments for various offences, provides security and dignified childhood for a child.

'Ek Tareekh Ek Ghanta Ek Saath' Initiative

- **Context:** The Government of India has launched 'Ek Tareekh Ek Ghanta Ek Saath' Initiative.

Key Highlights:

- It is an initiative focused on hardcore cleanliness activities, specifically shramdaan (voluntary labor) for the purpose of promoting cleanliness and sanitation in India.
- The goal is to mobilize citizens to come together for one hour at 10 am on 1st October and work towards cleaning various public places.
- This effort is meant to pay tribute to Mahatma Gandhi, whose Jayanti (birthday) falls on October 2nd, and to honor his vision of a clean and hygienic India.
- This initiative will help in visible cleanliness and promote a cleaner and more hygienic environment across the country.

Intelligent Grievance Monitoring System (IGMS) 2.0

- **Context:** The Union Minister of State for Personnel has launched the Intelligent Grievance Monitoring System (IGMS) 2.0 public grievance portal.

Key Highlights:

- IGMS is an artificial intelligence(AI) driven Grievance Monitoring System. It aims to enhance the efficiency of the public grievance redressal process.
- Developed by the Department of Administrative Reforms and Public Grievances (DARPG) in collaboration with IIT Kanpur.
- The system provides real-time analysis of grievances received and resolved, as well as state-wise and district-wise data. It also helps identify the root cause of grievances, allowing for targeted interventions.
- In India, the common man raises around 20 lakh grievances annually on the CPGRAMS portal. However, manually classifying and monitoring these grievances is a challenging and time-consuming task.
- Therefore, the launch of the IGMS 2.0 Dashboard will significantly expedite the grievance redressal process, enabling the concerned ministries and departments to respond more effectively.

2nd OCTOBER, 2023

Geospatial Intelligence

- **Context:** Geospatial intelligence has offered valuable insights to help governments and organizations to protect communities from natural disasters.

Key Highlights:

- Geospatial intelligence is the collection and integration of data from a network of technologies, including satellites, mobile sensors, ground-control stations and aerial images.
- The data is then used to produce real-time maps and simulations to help identify when, where and to what extent a threat is likely to emerge.
- Government officials, individuals or both can use this information to make informed decisions.
- The geospatial intelligence industry is projected to grow from a US$61 billion enterprise in 2020 to more than $209 billion in 2030.
- Geospatial intelligence aids in monitoring and responding to disasters, like tropical cyclones, by providing information on their location and strength.
- It supports search-and-rescue efforts, assesses damage, and helps in resource allocation during emergencies.
- Geospatial intelligence monitors environmental factors like temperature, precipitation, and polar ice to anticipate disturbances.
- This data is crucial for preparing for events like heatwaves, which can impact human safety and security.
- Geospatial intelligence contributes to security by tracking and reporting on events like the Russian-Ukraine war through satellite imagery.
- Commercial satellite companies now provide vital public information, extending the role of geospatial intelligence in transparency.
- Geospatial intelligence enhances transportation, logistics, and global supply chains by utilizing GPS data.
- It provides real-time information on ship and cargo locations, improving efficiency and reliability.
- High-resolution imagery aids in the development of autonomous vehicles and smarter urban planning.
- It helps detect features on the ground, such as bicycle lanes and traffic direction, for safer and more efficient communities.
- Digital twins are virtual representations of real systems – buildings or cities, for example – that mimic the systems' characteristics and can be updated in real time to reflect changing conditions in the systems.
- Digital twins are being used in many civilian and military settings to improve decision making. They are useful for modeling changes and predicting outcomes.
- Digital twins have been highly effective in conflict settings by simulating weather and terrain to help militaries and peacekeepers develop and enact strategies.

Toto Language: A dictionary to save a language from extinction

- **Context:** A dictionary titled "Toto Shabda Sangraha" is set to be released with the aim of preserving the Toto language.

Key Highlights:

- Toto is a Sino-Tibetan language. It is primarily spoken orally and is currently written in the Bengali script.
- It is spoken by barely 1,600 people living in parts of West Bengal bordering Bhutan.
- It is listed as a critically endangered language by UNESCO.
- Toto Shabda Sangraha is a dictionary developed with the aim of preserving the Toto language.
- The dictionary has been compiled by Bhakta Toto, a bank employee-cum-poet, and published jointly by the trust and Bhasha Sansad.

3rd OCTOBER, 2023

Project Udbhav

- **Context:** The Indian Army in collaboration with the United Service Institution of India (USI), has recently concluded a hybrid-panel discussion as part of Project Udbhav

Key Highlights:

- In 2021Indian Army in collaboration with the United Service Institution of India, a defence think-tank started Project Udbhav
- To rediscover the profound Indic heritage of statecraft and strategic thoughts derived from ancient Indian texts of statecraft, warcraft, diplomacy and grand strategy.
- The project focuses on various aspects such as Indigenous Military Systems, Historical Texts, Regional Texts and Kingdoms, Thematic Studies and intricate Kautilya Studies.
- Project Udbhav seeks to bridge the historical and the contemporary. Its ultimate goal is to understand the profound depths of indigenous military systems, their evolution, strategies that have been passed down through the ages and integrate that age-old wisdom with modern military pedagogy.
- By reintroducing these classical teachings into contemporary military and strategic domains, the army aims to: nurture its officers to apply ancient wisdom in modern scenarios and allow a more profound understanding of international relations and foreign cultures.
- This project stands testimony to the Indian Army's recognition of India's age-old wisdom in statecraft, strategy, diplomacy and warfare.

Insolvency and Bankruptcy Board of India (IBBI)

- **Context:** The Insolvency and Bankruptcy Board of India (IBBI) has celebrated its Seventh Annual Day.

Key Highlights:

- The Insolvency and Bankruptcy Board of India (IBBI) is a statutory body established on 1st October, 2016 in accordance with the provisions of the Insolvency and Bankruptcy Code, 2016 (Code).
- The IBBI is one of the key pillars of the ecosystem responsible for implementation of the Code.
- It is a unique regulator: regulates a profession as well as processes.
- It has regulatory oversight over the Insolvency Professionals, Insolvency Professional Agencies, Insolvency Professional Entities and Information Utilities.
- It writes and enforces rules for processes, namely, corporate insolvency resolution, corporate liquidation, individual insolvency resolution and individual bankruptcy under the Code.
- It has also been designated as the 'Authority' under the Companies (Registered Valuers and Valuation Rules), 2017 for regulation and development of the profession of valuers in the country.
- The affairs of the IBBI are governed by a Governing Board constituted by the Central Government.
- **The Governing Board consists of** (a) Chairperson; (b) three members from amongst the officers of the Central Government not below the rank of Joint Secretary or equivalent, one each representing the Ministry of Finance, Ministry of Corporate Affairs and Ministry of Law & Justice; (c) one member nominated by the Reserve Bank of India; (d) three whole-time members; and (e) two part-time members.

Yashaswini: To celebrate women power

- **Context:** The Central Reserve Police Force (CRPF) collaborates with the Ministry of Women and Child Development for a cross-country bike expedition named "Yashaswini".

Key Highlights:

- Yashaswini is a cross-country bike expedition organized by the Central Reserve Police Force (CRPF) in collaboration with the Ministry of Women and Child Development.
- Under this, a total of 150 women CRPF officers will embark on a cross-country rally on bikes to celebrate women power or Nari Shakti of the country.
- The rally will cover approximately 10,000 km, passing through 15 states and 2 Union Territories.
- Along their routes, various events are planned, including interactions with groups associated with "Beti Bachao Beti Padhao" (BBBP), such as school children, college girls, women self-help groups among others.
- The women bikers will also proudly display the BBBP logo on their uniforms and banners, endorsing this cause throughout the country.

4th OCTOBER, 2023

R21/Matrix-M Vaccine

- **Context:** The World Health Organization (WHO) has recommended a new vaccine named R21/Matrix-M for the prevention of malaria in children.

Key Highlights:

- R21/Matrix-M is a Malaria Vaccine developed by Jenner Institute at Oxford University and the Serum Institute of India with support from the European and Developing Countries Clinical Trials Partnership (EDCTP), the Wellcome Trust, and the European Investment Bank (EIB).
- The vaccine contains R21 antigen developed by University of Oxford, specific to the malaria parasite, and Novavax's Matrix-M, a saponin-based adjuvant that enhances the immune response, making it broader and more durable.
- High efficacy when given just before the high transmission season: In areas with highly seasonal malaria transmission (where malaria transmission is largely limited to 4 or 5 months per year), the R21 vaccine was shown to reduce symptomatic cases of malaria by 75% following a 3-dose series.
- Cost-effectiveness is favorable, with a price range of $2 to $4 per dose, making it comparable to other recommended malaria interventions.
- The R21 vaccine was shown to be safe in clinical trials.
- The R21 vaccine is the second malaria vaccine recommended by WHO, following the RTS,S/AS01 vaccine, which received a WHO recommendation in 2021.

Nobel Prize in Medicine 2023

- **Context:** The 2023 Nobel Prize in Physiology or Medicine has been awarded to Katalin Karikó and Drew Weissman for their research that enabled the development of mRNA vaccines against COVID-19

Key Highlights:

- mRNA stands for messenger RNA. It is a form of nucleic acid which carries genetic information.
- Like other vaccines, the mRNA vaccine also attempts to activate the immune system to produce antibodies that help counter an infection from a live virus.
- However, while most vaccines use weakened or dead bacteria or viruses to evoke a response from the immune system, mRNA vaccines only introduce a piece of the genetic material that corresponds to a viral protein. This is usually a protein found on the membrane of the virus and is called spike protein. Therefore, the mRNA vaccine does not expose individuals to the virus itself.
- However, a key challenge with mRNA vaccines is that they need to be frozen from -90 degree Celsius to -50 degree Celsius. They can be stored for up to two weeks in commercial freezers and need to be thawed at 2 degrees Celsius to 8 degrees Celsius at which they can remain for a month.

5th OCTOBER, 2023

Project Mariana: Cross-border CBDC trading

- **Context:** The Bank for International Settlements (BIS), in collaboration with the central banks of France, Singapore, and Switzerland, has announced the successful conclusion of Project Mariana.

Key Highlights:

- Project Mariana was developed jointly by three BIS Innovation Hub centres (the Swiss, Singapore and Euro-system Hub Centres) together with Bank of France, Monetary Authority of Singapore and Swiss National Bank.
- The project tested the cross-border trading and settlement of wholesale central bank digital currencies (wCBDCs) between financial institutions, using new decentralized finance (DeFi) technology concepts on a public blockchain.
- **The project relied on three key elements:**
  1. A common technical token standard provided by a public blockchain to facilitate exchange and interoperability between the different currencies.
  2. Bridges for the seamless transfer of wCBDCs between different networks.
  3. An Automated Market Maker (AMM), which is a specific type of decentralized exchange to trade and settle spot Foreign exchange(FX) transactions automatically.

United Nations Convention against Transnational Organised Crimes (UNTOC)

- **Context:** The Minister of State for Home Affairs attended a two-day conference to mark the 20th anniversary of the United Nations Convention against Transnational Organised Crimes (UNTOC) at Palermo in Italy.

Key Highlights:

- The United Nations Convention against Transnational Organized Crime was adopted by the UN General Assembly in 2000 and entered into force in 2003.
- It is also known as the Palermo Convention since it was adopted in Palermo in Italy.
- The Convention is the first comprehensive and global legally binding instrument to fight transnational organized crime.
- States that have ratified UNTOC commit themselves to taking a series of measures to prevent and control transnational organized crime including (i) the criminalizing of the participation in an organized criminal group, of money laundering, related corruption and obstruction of justice and (ii) the adoption of frameworks for extradition, mutual legal assistance and international cooperation.
- The Convention is further supplemented by three Protocols which target specific areas and manifestations of organized crime: 1) Protocol to Prevent, Suppress and Punish Trafficking in Persons especially Women and Children; the 2) Protocol against the Smuggling of Migrants by Land, Sea and Air and 3) Protocol against the Illicit Manufacturing of and Trafficking in Firearms, their Parts and Components and Ammunition.
- In 2011, Government of India ratified the UNTOC and its three protocols
- Central Bureau of Investigation (CBI) is the nodal agency for all dealings with UNTOC.

Olive Ridley Turtles

- **Context:** Wildlife Institute of India, Dehradun and Maharashtra's forest department have conducted a study to understand the offshore movements and migration of Olive Ridley Turtles.

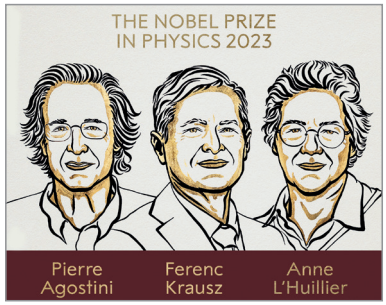
Key Highlights:

- The Olive Ridley turtles are the smallest and most abundant of all sea turtles found in the world.

- Olive ridley gets its name from its olive colored carapace, which is heart-shaped and rounded.
- They are carnivores, and feed mainly on jellyfish, shrimp, snails, crabs, molluscs and a variety of fish and their eggs.
- They are found in warm waters of the Pacific, Atlantic and Indian oceans.
- These turtles spend their entire lives in the ocean, and migrate thousands of kilometers between feeding and mating grounds in the course of a year.
- They are best known for their unique mass nesting called Arribada, where thousands of females come together on the same beach to lay eggs.
- Odisha's Gahirmatha Marine Sanctuary is the world's largest known rookery (breeding colony) of the olive Ridley sea turtles.
- Indian Coast Guard undertakes "Operation Olivia" every year. It is an Olive Ridley Turtle protection program.
- To reduce the accidental killing in India, the Odisha government has made it mandatory for trawlers to use Turtle Excluder Devices(TEDs). It is a net specially designed with an exit cover that allows the turtles to escape while retaining the catch.

6th OCTOBER, 2023

Nobel Prize in Physics 2023



- **Context:** The Nobel Prize in Physics 2023 has been awarded to Pierre Agostini, Ferenc Krausz and Anne L'Huillier for experimental methods that generate attosecond pulses of light for the study of electron dynamics in matter.

Key Highlights:

- An atom is a tiny unit into which matter can be divided.
- Atom is composed of a nucleus of protons and neutrons and electrons that travel around this nucleus. Electrons move so fast that it is impossible to observe them in real time.
- Before being able to study them directly, scientists understood the properties of electrons through averages.
- Electrons move at a whopping 43 miles a second. This speed has long made them impossible to study. For capturing them, it requires extremely short pulses of light such as attosecond.
- An attosecond is an astonishingly short unit of time, equivalent to one quintillionth of a second, or 10 to the power of 18 seconds.
- To put this into perspective, if a second were stretched to cover the entire age of the universe, which is approximately 13.8 billion years, an attosecond would be just a fraction of a second.
- The three Nobel Prize winners Pierre Agostini, Ferenc Krausz and Anne L'Huillier demonstrated a way to generate attosecond pulses of light that can be used to measure the rapid processes in which electrons move or change energy.
- Attosecond physics gives us the opportunity to understand mechanisms that are governed by electrons.
- One possible application is to study molecular-level changes in blood, to identify diseases.
- A better understanding of how electrons move and transmit energy can also help in creating more efficient electronic gadgets.

Exercise SAMPRITI: Indian and Bangladesh armies begin Joint Exercise

- **Context:** India and Bangladesh have commenced the 11th edition of annual joint military exercise called Exercise SAMPRITI in Umroi, Meghalaya.

Key Highlights:

- Exercise SAMPRITI is an annual joint military exercise between India and Bangladesh.
- The exercise was started in 2009.It is organized alternatively by both countries.
- To share tactical drills and promote best practices in carrying out sub-conventional operations.

PM SVANidhi Scheme

- **Context:** The Prime Minister Street Vendor's Atma Nirbhar Nidhi (PM SVANidhi) scheme has achieved a significant milestone by extending its support to more than 50 lakh street vendors across the nation.

Key Highlights:

- It is a micro credit scheme for urban street vendors that aims to provide collateral-free working capital loans up to ₹50,000.
- The schemes facilitate collateral free working capital loan upto ₹10,000 of 1 year tenure, with enhanced loan of ₹20,000 and ₹50,000 in the second and third tranches respectively on repayments of earlier loans.
- Incentivizes regular repayment, through interest subsidy @ 7% per annum; and
- Reward digital transactions, by way of cashback upto ₹1,200 per year. The scheme employs Aadhaar-based e-KYC, utilizes an end-to-end IT platform, and employs SMS-based notifications for application status updates.
- Banks eligible to give loans are Scheduled Commercial Banks, Regional Rural Banks, Small Finance Banks, Cooperative Banks, Non-Banking Financial Companies, Micro-Finance Institutions and SHG Banks.

7th OCTOBER, 2023

Coral Reef Breakthrough Initiative

- **Context:** The International Coral Reef Initiative (ICRI) has launched the Coral Reef Breakthrough in partnership with the Global Fund for Coral Reefs(GFCR) and the High-Level Climate Champions(HLCC).

Key Highlights:

- Coral Reef Breakthrough Initiative launched by International Coral Reef Initiative (ICRI) in partnership with the Global Fund for Coral Reefs(GFCR) and the High-Level Climate Champions(HLCC).
- To secure the future of at least 125,000 km2 of shallow-water tropical coral reefs with investments of at least US$12 billion to support the resilience of more than half a billion people globally by 2030.
- International Coral Reef Initiative (ICRI) is a global partnership between nations and organizations which strives to preserve coral reefs and related ecosystems around the world.
- The initiative was founded in 1994 by eight governments: Australia, France, Japan, Jamaica, the Philippines, Sweden, the United Kingdom, and the United States of America.
- It was announced at the First Conference of the Parties of the Convention on Biological Diversity in December 1994, and at the high level segment of the Intersessional Meeting of the U.N. Commission on Sustainable Development in April 1995.
- Member countries are 45 Countries.India is also one of the member countries.
- The ICRI Secretariat is hosted for a determined term (usually two years) by State members, on a voluntary basis.
- The initiative is an informal group whose decisions are not binding on its members. But its actions have been pivotal in continuing to highlight globally the importance of coral reefs and related ecosystems to environmental sustainability, food security and social and cultural wellbeing.

Badis limaakumi

- **Context:** Scientists have discovered a new fish species from the Milakriver, Nagaland. It has been named as Badis limaakumi.

Key Highlights:

- Badis limaakumi is a freshwater fish that belongs to the Badidae family.
- The fish is commonly found in streams with slow or moderate water flow, in ditches and stagnant water bodies.
- The fish is found in India, Bangladesh, Nepal, Pakistan, Thailand and Myanmar.
- This new species of fish differs from other members of its family due to distinctive features, such as a dark opercular blotch at the base of its opercular spine and the absence of spots on its sides and cleithrum.
- Fish from the Badis family are also known as chameleon fish for their ability to change colour. This helps them blend with the surroundings when under stress.

Nobel Prize in Chemistry 2023

- **Context:** The 2023 Nobel Prize in chemistry was awarded to Moungi G. Bawendi, Louis E. Brus and Alexei I. Ekimov for the discovery and synthesis of quantum dots.

Key Highlights:

- Quantum dots are particles that are a few nanometres wide. They exhibit unique optical properties due to their small physical size.
- Their structure and atomic composition are the same as bulk materials, but the properties of the latter don't depend on their size. Infact ,the properties of quantum dots can be changed by changing their size.
- Quantum dots make computer monitors and TV screens more colorful and brighter. Blue LEDs behind the screen excite these dots, causing them to emit light of different colours. Combining these colours gives rise to even more colours as well as brightness.
- Tiny quantum dots are used by biochemists to map biological tissues at a very small scale.
- Quantum dots improve the efficiency of solar panels by helping them absorb and convert sunlight into electricity.
- Quantum dots play a role in targeted drug delivery for certain cancer treatments and have broader applications in nanomedicine.
- Quantum dots can be used as security markers on currency and documents to prevent counterfeiting.
- In general, quantum dots serve as bright fluorescent markers for tagging and tracking various objects.
- Quantum dots are explored as potential qubits or quantum bits for use in quantum computing due to their quantum mechanical properties.