



DECEMBER, 2023



** Useful for **

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

15th DECEMBER, 2023

Circular Economy

 Context: The Confederation of Indian Industry (CII) recently brought out the National Circular Economy Framework (NCEF). It aims to provide a blueprint for India's shift towards a circular economy.

Key Highlights:

- The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended.
- NCEF focuses on areas like municipal solid and liquid waste, electronic waste, toxic and hazardous industrial waste, faecal sludge, plastics, and construction material.
- It aims to reduce reliance on imported resources, decouple economic growth from resource consumption, reduce resource consumption and pollution, enhance resource security, improve competitiveness, and attract investment.
- CII also stressed that by 2050, the sector is likely to contribute \$2 trillion to the domestic economy and create close to 10 million additional jobs.

Aspirational Blocks Programme (ABP)

• **Context:** NITI Aayog has released the first Delta Ranking of the Aspirational Blocks Programme (ABP).

Key Highlights:

- Aspirational Blocks Programme (ABP) launched in January, 2023 by NITI Aayog
- The programme focuses on improving governance to enhance the quality of life of citizens and service delivery in the remotest and less developed blocks of India.
- The Delta Ranking is a core strategy of the Programme based on the spirit of competitive and cooperative federalism.

- It is calculated on the basis of performance of blocks and progress achieved in the Key Performance Indicators (KPIs).
- Tiriyani Block in Telangana has secured the top position and Kaushambi Block in Uttar Pradesh ranked second.
- The top rankers of ABP and ADP will be displayed on the Wall of Fame at NITI Aayog. It will display the projects undertaken by the blocks and districts to improve their indicators.

New Delhi Declaration on Artificial Intelligence adopted

 Context: The New Delhi Declaration has been adopted at the Global Partnership on Artificial Intelligence (GPAI) Summit. It is being hosted by India at the Bharat Mandapam, New Delhi.

Key Highlights:

- GPAI is a multi-stakeholder effort aimed at steering the responsible development and application of artificial intelligence and have 29 member countries.
- India will be the lead chair for 2024
- The New Delhi Declaration includes ensuring transparency, accountability, fairness, and nondiscrimination in AI systems.
- It states that such a framework should be rooted in democratic values and human rights, safeguarding dignity and well-being as well as ensuring personal data protection.
- Ensuring equitable access to the benefits of AI for all countries and people.
- The declaration commits countries to work on addressing concerns around AI such as unemployment, lack of transparency and fairness, protection of intellectual property and personal data and threats to human rights and democratic values.
- GPAI will pursue a diverse membership with a particular focus on low and middle-income countries to ensure a broad range of expertise, national and regional views and experiences based on our shared values.

• The declaration acknowledges India's contribution in making agriculture a part of the AI agenda.

16th DECEMBER, 2023

Global Status Report on Road Safety 2023

• **Context:** Recently, the Global Status Report on Road Safety 2023 has been released.

Key Highlights:

- Global Status Report on Road Safety 2023 released by World Health Organization (WHO)
- To detail the scale of global road traffic deaths and progress in advancing laws, strategies and policies to reduce them around the world.
- Between 2010 and 2021, road traffic deaths worldwide dropped by 5% to 1.19 million annually.
- Around 108 UN member countries reported a decrease in road traffic deaths. 10 countries achieved above 50% reduction in deaths. 35 countries reduced fatalities by 30-50%.
- India, on the other hand, saw a 15% increase in road traffic fatalities rising from 1.34 lakh in 2010 to 1.54 lakh in 2021.
- Road crashes remain a major cause of death among youth (5-29 years) and the 12th leading cause of deaths among all age groups.
- In the last decade, the global population increased by about 14 billion or 13% but road traffic deaths decreased by 5%. Therefore, the road fatality rate per 100,000 people has seen a reduction.
- The global motor vehicle fleet increased by 160%. Therefore, the annual fatality rates per 1 lakh vehicles dropped from 79 deaths to 47 deaths marking a 41% reduction.
- Nine in 10 deaths occur in low- and middle-income countries which is disproportionately higher when set against the number of vehicles and roads they have.

Global River Cities Alliance

• **Context:** The Global River Cities Alliance (GRCA), led by the National Mission for Clean Ganga (NMCG), was launched at COP28 in Dubai.

Key Highlights:

- The GRCA is a unique alliance to propagate riversensitive development in cities around the world.
- It extends the River Cities Alliance, initially established by NMCG in 2021.
- To foster global collaboration for river conservation and sustainable water management.
- It Includes over 275 river-cities worldwide across 11 countries (India, Australia, Japan, Bhutan, Egypt, etc), along with international funding agencies (World Bank, AIIB, ADB) and river cities of Den Haag, from the Netherlands, Adelaide from Australia, and Szolnok of Hungary joined the GRCA.

About National Mission for Clean Ganga (NMCG):

- It was registered as a society on 12th August 2011 under the Societies Registration Act 1860. It acted as implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the Environment (Protection) Act (EPA),1986.
- The Act envisages five tier structure at national, state and district level to take measures for prevention, control and abatement of environmental pollution in river Ganga and to ensure continuous adequate flow of water so as to rejuvenate the river Ganga.

Digitization of Land Records

• **Context:** India's project to digitize land records for better infrastructure planning and reduced corruption.

Key Highlights:

• It highlights the importance of clear land ownership, the impact on real estate, and the need to modernize land registration from physical to digital formats.

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- With clear records, property deals become more transparent, reducing corruption and improving efficiency.
- Proper land records could lead to higher property tax collections for state governments.
- Easy access to land data aids in faster planning and execution of infrastructure projects under the PM Gati Shakti National Master Plan.
- Digital records enable the poor to prove land ownership, safeguarding them against exploitation.

Government initiatives are in place for the improvement of digital land records are:

- PM Gati Shakti National Master Plan: This initiative aims to coordinate infrastructure development using digital land records from states and Union territories.
- Digital India Land Records Modernization Programme: A government project focusing on updating and digitizing land records across the country. Once this has been done, every plot/parcel of land can get the 14-digit alpha-numeric ULPIN (Unique Land Parcel Identification Number) or Bhu-Aadhaar.

17th DECEMBER, 2023

AKTOCYTE

 Context: AKTOCYTE tablets have been granted approval by the Food Safety and Standards Authority of India (FSSAI).

Key Highlights:

- It is a tablet used during cancer treatment to minimize the side effects of radiotherapy.
- It is developed by Department of Atomic Energy and M/s. IDRS Labs Pvt. Ltd. Bengaluru
- AKTOCYTE Tablets show promise in pelvic cancer patients suffering from radiotherapy-induced Cystitis (Blood in urine).
- Beyond a supplement, they serve as an adjuvant to cancer radiotherapy, a regenerative nutraceutical, an

immunomodulator, and an antioxidant, highlighting their diverse applications in cancer care.

- AKTOCYTE has received approval from the FSSAI.
- AKTOCYTE Tablets, set to debut in January 2024, promise to revolutionize cancer treatment protocols.

Cloud Facility for Financial Sector

• **Context:** The Reserve Bank of India (RBI) is working on establishing a cloud facility for the financial sector in India.

Key Highlights:

- Cloud Centre for Financial Data aims to provide a structured, scalable data storage and data processing facility.
- It will be part of the Digital Public Infrastructure (DPI)
- The facility will be set up and initially operated by the Indian Financial Technology & Allied Services (IFTAS), a wholly-owned subsidiary of RBI. Eventually, the cloud facility will be transferred to a separate entity owned by the financial sector participants.
- It will enhance the security, integrity and privacy of financial sector data.
- Alternative to similar services offered by American companies like Amazon, Google and Microsoft.
- For smaller organizations such as cooperative banks, this offers significant efficiency in scaling since maintaining individual databases for each one could require substantial investments and specialized skills.
- It will empower the financial sector to utilise nextgeneration technologies, including AI, platform automation, etc.

18th DECEMBER, 2023

WHO Report on E-cigarettes

• **Context:** The World Health Organization (WHO) has released a report on e-cigarettes titled Electronic Cigarettes: Call to Action.

Key Highlights:

- E-cigarettes are often promoted as a less harmful alternative to conventional cigarettes. But they are not shown to be effective for quitting tobacco use at the population level.
- It has been found that they generate harmful substances that are linked to cancer, heart and lung diseases and brain development issues.
- Exposure to e-cigarette content on social media also increases the likelihood of use.
- Studies have shown that young people who use e-cigarettes are almost three times more likely to use cigarettes later in life.
- Studies have shown that kids aged 13-15 are using e-cigarettes more than adults worldwide. For example, in Canada, e-cigarette use among 16 to 19-year-olds doubled between 2017 and 2022.
- Hence, WHO has urged countries to implement strict measures to control the use of e-cigarettes.

Barracuda: India's fastest' solar-electric boat

• **Context:** India's fastest solar-electric boat named Barracuda has been launched.

Key Highlights:

- India's fastest solar-electric boat jointly developed by Navalt Solar and Electric Boats and Mazagon Dock Shipbuilders Ltd and it is named after A swift, long fish named Barracuda
- The boat can attain a top speed of 12 knots and has a range of 7 hours in a single charge. The vessel harnesses twin 50 kW electric motors, a marinegrade LFP battery, and 6 kW solar power. It is an eco-friendly vessel.
- It produces no noise and vibrations.
- It can accommodate up to 12 passengers and cargo.
- The boat will be deployed at Mazagon Dock at the Mumbai dock under the name Saur Sakthi.

ENACT (Enhancing Nature-based Solutions for an Accelerated Climate Transformation) Partnership

 Context: The ENACT (Enhancing Nature-based Solutions for an Accelerated Climate Transformation) Partnership has welcomed six new countries and UNEP into its collaboration at COP 28.

Key Highlights:

- Global initiative aiming to synchronize global endeavors in tackling climate change, land and ecosystem degradation, and biodiversity loss by employing Nature-based Solutions.
- Its aim is to boost climate resilience for over 1 billion vulnerable people, Safeguard 2.4 billion hectares of healthy ecosystems and Intensify global mitigation efforts by protecting and restoring carbon-rich ecosystems.
- It delivers a comprehensive quantitative overview of global progress in implementing Nature-based Solutions commitments by state and non-state actors.
- The initial report, launching in early 2024, will kick start the annual series on ENACT's NbS Goals.
- According to IUCN, Nature-based Solutions are actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature.

19th DECEMBER, 2023

Diel Vertical Migration (DVM)

• **Context:** Diel Vertical Migration (DVM) has created attention in recent news for its involvement in carbon sequestration.

Key Highlights:

• Diel Vertical Migration (DVM) is the coordinated daily movement of marine organisms (particularly zooplankton) between the ocean's surface and deeper layers.

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- At sunset, deep-sea organisms ascend from the mesopelagic layer (200-1,000 m deep) to the epipelagic layer (topmost zone from the surface to 200 m), driven by the need for food.
- This night time migration allows deep sea marine organisms to feed on phytoplankton while evading diurnal predators.
- It is the largest daily biomass migration on Earth, occurring daily in all oceans.
- Serves as an Important Carbon Sink– As the mesopelagic creatures feed on surface plankton, they extract carbon from the upper surface and carry it with them when they migrate back to the deeper oceans.
- Some of these creatures may get consumed by other predators, passing on the consumed carbon to them.
 When the predator produces carbon-rich waste, it sinks to the ocean floor and remains trapped for millennia.

Indira Gandhi Peace Prize

• **Context:** The Indira Gandhi Peace Prize for Peace, Disarmament and Development 2023 has been jointly awarded to Daniel Barenboim and Ali Abu Awwad.

Key Highlights:

- Daniel Barenboim and Ali Abu Awwad have been jointly awarded Indira Gandhi Peace Prize 2023 for their efforts in bringing together the people of Israel and the Arab World for a non-violent resolution of the Israel-Palestine conflict.
- Daniel Barenboim is an Argentine-born distinguished classical pianist, known for his relentless endeavor in using music to foster harmony in West Asia.
- Ali Awwad co-founded a local Palestinian-Israeli initiative called Roots promoting understanding, non-violence and transformation.

Dare to Dream (D2D) scheme

 Context: Recently Minister of State for Defence has filed a reply in Parliament regarding the successful implementation of the Dare to Dream (D2D) scheme.

Key Highlights:

- Under D2D, annual Dare to Dream Contests are organised to promote innovations by individual and start-ups for advancements in defence and aerospace technologies.
- It was initiated in memory of the former President of India, Dr APJ Abdul Kalam and it is the 4th edition of the contest.
- It was launched on 2019 by Defence Research and Development Organisation (DRDO)
- Indian citizens above 18 years and startups registered with the Department for Promotion of Industry & Internal Trade, led by Indian founders.
- Entries will be evaluated based on criteria such as novelty, applicability, implementability, technical merit and maturity.
- Cash award of up to 10 lakhs for Start-ups and 5 lakhs for individuals. Winners are also eligible to secure funding through DRDO's TDF scheme for realizing prototypes, contingent on merit and feasibility.

20th DECEMBER, 2023

Conservation of Marine Species

 Context: The Union Minister of State for Environment, Forest and Climate Change has informed Lok Sabha about the measures taken for the conservation of marine species.

Key Highlights:

- India has designated 130 Marine Protected Areas and identified 106 Important Coastal and Marine Biodiversity Areas (ICMBAs) to safeguard marine species.
- Many threatened marine species have been listed as Scheduled animals in Indian Wildlife Protection Act 1972.
- Under the scheme of Integrated Development of Wildlife Habitat (IDWH), threatened species like marine turtles, humpback whales and Dugongs are prioritized for assessment and monitoring of their populations.

- Dugong Conservation Reserve has been established in Palk Bay for conservation of Dugongs and seagrass associated marine species.
- National Marine Turtle Action Plan has been released with the aim to conserve marine turtles and their habitats in India.
- Project Dolphin is the Government initiative to conserve both oceanic and riverine dolphin species launched in 2021.
- Coastal Regulation Zone (CRZ) Notification, 2019: It was promulgated under Environment (Protection) Act 1986. It has specific focus on conservation and management plans of Ecologically Sensitive Areas (ESAs) like Mangroves, Seagrasses, Sand dunes, Corals and Coral reefs, Turtle nesting grounds among others.
- Biological Diversity Act 2002 and associated rules ensure protection, conservation, and sustainable use of marine species.
- MoEFCC is granting funds under the centrally sponsored schemes to maritime States for the conservation of Corals and Mangroves. For instance, CAMPA funds are being provided for Dugong conservation.
- Centre for Marine Living Resources and Ecology (CMLRE) is an attached office under the Ministry of Earth Sciences (MoES). It is mandated with the management strategies development for marine living resources through ecosystem monitoring and modelling activities.
- Marine Megafauna Stranding Management Guidelines,2021 has been released for actions to be taken during stranding and entanglement events as well as to improve coordination between various stakeholders.

Telecommunications Bill 2023

• **Context:** The Telecommunications Bill, 2023 seeks to substitute the Indian Telegraph Act 1885, the Indian

Wireless Telegraphy Act 1933, and the Telegraph Wires (Unlawful Possession) Act, 1950. It also amends the Telecom Regulatory Authority of India (TRAI) Act, 1997.

Key Highlights:

- The Bill revises regulations related to the development, operation, and expansion of telecommunication services, networks, spectrum assignment, etc.
- Authorisation for telecom-related activities Obtaining prior approval from the central government is mandatory for (i) providing telecom services, (ii) establishing, operating, or expanding telecom networks, or (iii) possessing radio equipment.
- Assignment of spectrum: Spectrum will be assigned by auction, except for specified uses. In some specific use cases, it will be allocated on an administrative basis (by the Government). These include: (i) national security and defence, (ii) disaster management, (iii) weather forecasting, (iv) transport, (v) satellite services such as DTH and satellite telephony, and (vi) BSNL, MTNL, and public broadcasting services. The Central government may re-purpose or re-assign any frequency range and permit the sharing, leasing, and surrender of spectrum.
- Government can suspend, assume control of, or oversee any telecom service in case of public emergency or national security concerns.
 A government authorized officer may search premises or vehicles for unauthorized telecom equipment.
- An earlier fund to provide telecom services in underserved areas has been renamed as Digital Bharat Nidhi, expanding its usage to include R&D.
- The bill excludes Over-the-Top (OTT) apps and communication platforms like WhatsApp from being classified as telecom services.

21st DECEMBER, 2023

Smart India Hackathon 2023

• **Context:** Recently PM Narendra Modi engaged in discussions with the participants during the Grand Finale of Smart India Hackathon 2023.

Key Highlights:

- It is a nationwide initiative to provide students a platform to solve some of the pressing problems we face in our daily lives.
- It aims to foster a culture of product innovation, problem-solving, and out-of-the-box thinking in students.
- It was launched in 2017 and its nodal ministry is Ministry of Education
- SIH is being run in two formats: SIH Software and SIH Hardware Editions for higher education students.
- Participants propose solutions across various themes such as Space Technology, Smart Education, Disaster Management, Robotics and Drones, Heritage, and Culture.
- SIH 2023 offers a total prize pool exceeding Rs 2 crore, with each winning team receiving a cash prize of Rs 1 lakh per problem statement.

New Swarnima Loan Scheme

• **Context:** Recently government has filed a reply in the Lok Sabha regarding the implementation of the Swarnima Loan Scheme.

Key Highlights:

- It is a loan scheme to provide financial assistance to women entrepreneurs from backward classes.
- Inculcating the spirit of self-dependence among the women of Backward Classes under Term Loan.
- Its nodal ministry is Ministry of Social Justice and Empowerment, introduced by National Backward Classes Finance and Development Corporation (NBCFDC) and implemented by State Channelising Agencies (SCAs) which act as the nodal agency.
- Women belonging to Backward Classes, aged between 18 and 55 years are eligible.
- Total annual family income should not be more than 3 lakh.
- A loan of maximum 2,00,000 per beneficiary is provided.
- The rate of interest on the amount of loan is less as compared to the general loan scheme of the Corporation.
- Loan is to be repaid in quarterly instalments with maximum 8 years.