MADE EASY

WEEKLY CURRENT AFFAIRS

DECEMBER, 2022

Week-2

8-14 Dec., 2022

★★ *Useful for* ★★

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

8th DECEMBER, 2022

SpaceTech Innovation Network (SpIN)

- **Context:** Indian Space Research Organisation (ISRO) has signed a Memorandum of Understanding (MoU) with Social Alpha to establish a SpaceTech Innovation Network (SpIN).

Key Highlights

- Indian Space Research Organisation (ISRO) and Social Alpha signed a MoU to launch SpaceTech Innovation Network (SpIN), India's first dedicated platform for innovation curation and venture development for the burgeoning space entrepreneurial ecosystem.
- SpIN will primarily focus on facilitating space tech entrepreneurs in three distinct innovation categories: Geospatial Technologies and Downstream Applications; Enabling Technologies for Space & Mobility; and Aerospace Materials, Sensors, and Avionics.
- In line with the partnership announcement, SpIN has launched its first innovation challenge.
- Early-stage start-ups for developing solutions in areas of maritime and land transportation, urbanisation, mapping and surveying, disaster management, food security, sustainable agriculture, environmental monitoring, and natural resources management among others are encouraged to apply.
- The selected start-ups and innovators will be able to access both Social Alpha's and ISRO's infrastructure and resources as per the prevailing guidelines.
- They will be provided active handholding in critical areas including access to product design, testing and validation infrastructure, intellectual property management, go-to-market strategy, and access to long-term patient capital, among other technical and business inputs.

Scramjet Engine Technology

- **Context:** Indian Space Research Organisation (ISRO) successfully conducted the hot test of scramjet engine.

Key Highlights

- Recently, the Indian Space Research Organisation (ISRO) successfully conducted the hot test of Scramjet Engine, a type of Air Breathing Engine.
- India is the fourth country to demonstrate the flight testing of a Scramjet Engine.
- The test was conducted at ISRO's Propulsion Research Complex at Mahendragiri in Tirunelveli district of Tamil Nadu in the presence of ISRO Chairman and Secretary, Department of Space S. Somanath.
- The scramjet is a more advanced version of the ramjet engine and can operate efficiently at hypersonic speeds.
- In air breathing scramjet engine, air from the atmosphere is rammed into the engine's combustion at a supersonic speed more than Mach two.
- A scramjet (supersonic combustion ramjet) is a variant of a ramjet airbreathing jet engine in which combustion takes place in supersonic airflow.
- As in ramjets, a scramjet relies on high vehicle speed to compress the incoming air forcefully before combustion (hence ramjet), but whereas a ramjet decelerates the air to subsonic velocities before combustion using shock cones.

Meitei or Manipuri Script

- **Context:** Recently, newspapers in Manipur are making efforts to replace the Bengali script that's currently in use with Meitei Mayek or the Manipuri script in Manipur.

Key Highlights

- The Meitei script or the Metei script is used for the Meitei language which is the official language of Manipur state of India.
- The script was once patronized by Meitei rulers but which fell into disuse with the advent of Hinduism and eventually disappeared and was used until the 18th century, when it was replaced by the Bengali alphabet.

- The Manipur Official Language Act 1979 was enacted with the definition of Manipuri language as "Meiteilon written in Bengali script and spoken by the majority of Manipuri population.

- The Amendment Act of 2021 changed the definition of "Manipuri language" as Meiteilon written in Meitei script and is spoken by the majority of Manipur population.

9th DECEMBER, 2022

India's first Drone Yatra "Operation 777"

- **Context:** Union Minister Anurag Singh Thakur inaugurates India's first Drone Yatra at Drone Skilling & Training Conference in Chennai.

Key Highlights:

- Towards empowering and mobilising farmers across the nation with the use of agri-drones, Information and Broadcasting Minister Anurag Singh Thakur inaugurated India's first Drone Skilling and Training Virtual E-Learning Platform at the Chennai manufacturing facility of Garuda Aerospace, a drone-based startup of India.

- Garuda Aerospace's drone yatra, 'Operation 777' which will educate and demonstrate the efficacy of drones for different agricultural uses across 777 districts in India.

- The I&B Minister also launched the first of 1000 planned Drone Centre of Excellence at the company's Manufacturing unit in Chennai which is also the largest in India.

3rd Global High-level Ministerial Conference on AMR

- **Context:** The World Antimicrobial Awareness Week 2022 concluded recently with the Muscat Ministerial Manifesto on AMR being agreed upon at the Third Global High-level Ministerial Conference on Antimicrobial Resistance (AMR).

Key Highlights:

- The Third Global Ministerial Conference on Antimicrobial Resistance concluded in Oman, with the issue of The Muscat Manifesto, which aims to accelerate One Health actions on antimicrobial resistance to achieve the 2030 Sustainable Development Goals.

- Union Minister of State for Health and Family Welfare Bharati Pravin Pawar had participated in the 'Third Global High-Level Ministerial Conference on Antimicrobial Resistance'.

- The conference under the theme 'The AMR Pandemic: From Policy to One Health Action' will enhance international cooperation to tackle AMR and build on the success of the two previous high-level ministerial conferences held in the Netherlands in 2014 and 2019.

About Antimicrobial Resistance (AMR)

Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites change over time and no longer respond to medicines making infections harder to treat and increasing the risk of disease spread, severe illness and death.

Emergence and spread of AMR:

- AMR occurs naturally over time, usually through genetic changes.

- Antimicrobial-resistant organisms are found in people, animals, food, plants and the environment (in water, soil and air).

- They can spread from person to person or between people and animals, including from food of animal origin.

Spatial Data Infrastructure Geoportal for Ladakh

- **Context:** The Government of the Union Territory of Ladakh has approached a unit of the Indian Space Research Organisation (ISRO) for developing Spatial Data Infrastructure geoportal 'Geo-Ladakh'.

Key Highlights:

- The project encompasses spatial database generation (water resources, vegetation and energy potential) using remote sensing, geospatial techniques and the development of a Geo-portal for hosting this database.

- The project also aims towards training of Ladakh officials on Geospatial techniques and applications.

- Portal provides geospatial data visualization and analytics for UT-Ladakh, consisting of Spatial viewer, Carbon Neutrality, Geospatial utlility mapping and Geo-Tourism.

- An MoU was also signed between IIRS (ISRO) and UT-Ladakh Administration on January 1, 2022 towards carrying out this work.

- The potential of space technology could be used for generating the spatial database on time series snow cover, fresh water availability, sites for renewable energy potential (solar and wind), availability of alpine pastures/grazing lands for natural resource management and change assessment at periodic interval.

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10th DECEMBER, 2022

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Uttarakhand: 30% reservation to women in state government services

- **Context:** Uttarakhand Legislative Assembly recently passed a Bill to provide 30 per cent horizontal reservation to local women in state government services.

Key Highlights

- Uttarakhand assembly recently passed a bill in the state legislative assembly to provide 30 per cent horizontal reservation to the women of Uttarakhand state in state-owned services.

- The domicile-based job reservation bill states that "In direct recruitment in public services and posts, in the vacancies to be recruited, 20 percent horizontal reservation shall be given till July 24, 2006 and 30 percent after that in favor of concerned women candidates permanently domiciled in Uttarakhand".

- The bill is aimed at providing employment to women across the state who miss out on job recruitments and other opportunities due to the difficult terrain in several parts of the of the hill state.

- The bill also aims to provide the recruitment reservation to increase women's representation in local administration and governance.

USA's Journalism Competition and Preservation Act (JCPA)

- **Context:** The proposed law in the United States, aimed at giving news organizations greater power to negotiate fees for the content shared on social media sites like Facebook, has run into rough weather.

Key Highlights

- The draft legislation, known as the Journalism Competition and Preservation Act (JCPA) of 2022, would allow publishers — who have long complained of dwindling revenues as social media platforms cornered a large chunk of online advertisements, greater powers to collectively bargain with companies like Facebook and Google for a larger share of ad revenue.

- JCPA was initially included in the annual national defense spending bill of the US which will have to be passed by the end of this year.

- The proposal has come under attack from Meta (formerly Facebook Inc.), which has threatened to remove all news content from its platform if the measure is passed, and other groups representing Internet giants like Amazon and Google.

- Meta has argued that contrary to publishers' claims, platforms like Facebook actually help them with the distribution.

- More than two dozen organizations, including the American Civil Liberties Union (ACLU), the Wikimedia Foundation, and the Computer & Communications Industry Association, wrote a letter to Congressional leaders objecting to the proposed JCPA.

- Australia had introduced a similar law last year, called the News Media Bargaining Code, which had attracted a similar reaction from Meta.
- Much before the Australian law, in 2019, France became the first EU country to enact a directive on the publishing rights of media companies and news agencies, called "neighbouring rights". It required tech companies to engage in discussions with publishers about remuneration for their news content.
- After long negotiations to reach agreements, Meta announced in October last year that it would pay publishers for their content.

World Bank's 'Remittances Brave Global Headwinds'

- **Context:** Remittances to India are set to touch a record $100 billion in 2022, according to the World Bank's latest Migration and Development Brief titled, 'Remittances Brave Global Headwinds'.

Key Highlights

- According to the report, world remittances are expected to touch $794 billion in 2022, up from $781 billion in 2021.
- This represents a growth of 4.9%, compared to 10.2% in 2021, which was the highest since 2010. Of the $794 billion, $626 billion went to low- and middle-income countries (LMICs).
- India received $89.4 billion in 2021 — this is the first time a country will reach the $100 billion mark.
- Remittances represent an even larger source of external finance for LMICs in 2022, compared to foreign direct investment (FDI), official development assistance (ODA), and portfolio investment flows.
- The top five recipient countries this year are expected to be India ($100 billion), followed by Mexico ($60 billion), China ($50 billion), the Philippines ($38 billion) and Egypt ($32 billion).

11th DECEMBER, 2022

Unified Payments Interface (UPI)

- **Context:** The Reserve Bank of India (RBI) recently announced introducing a single-block-and-multiple debits functionality in Unified Payments Interface (UPI).

Key Highlights

- Customers can enable a payment mandate for a merchant by earmarking funds in their bank accounts for debits whenever required.
- According to RBI, the functionality will make payments easier for e-commerce and investments in securities.
- Customers will be able to block funds in their accounts for various payments. It will facilitate in making smoother e-payments and increase the efficiency of online checkouts during e-commerce transactions.
- It would be helpful for hotel bookings, purchase of securities in the secondary capital market as also purchase of government securities using the central banks' Retail Direct scheme, e-commerce transactions etc.
- UPI currently enables mandates for recurring transactions and single-block-and-single-debit functionality.
- More than 7 million autopay mandates are handled monthly and more than half of Initial Public Offer (IPO) applications are processed using the block feature of UPI.

Print and Digital Media Association (PADMA)

- **Context:** The government has approved the Print and Digital Media Association (PADMA) as a self-regulatory body for publishers of news and current affairs across the country.

Key Highlights

- The organisation with 47 digital news publishers on board will look at grievances related to digital media news content on their platforms.

- The organisation will be headed by former HC Judge Mool Chand Garg and have part-time member of Prasar Bharati Ashok Kumar Tandon and journalist Manoj Kumar Mishra as members.
- PDMA shall perform by redressing grievances related to the code of ethics under the rules.
- With this, the Ministry has approved nine self-regulatory bodies under the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.
- They include DIGIPUB News India Foundation, Confederation of Online Media (India), and NBF-Professional News Broadcasting Standards Authority, among others.
- The organization will primarily look at grievances related to content on digital media platforms pertaining to current affairs that have not been addressed at the level of the platform.

12ᵗʰ DECEMBER, 2022

Kerala: First carbon neutral farm in the country

- **Context:** Kerala Chief Minister Pinarayi Vijayan declared a seed farm, located in Aluva, as the first carbon neutral farm in the country.

Key Highlights:
- A significant reduction in carbon emission has helped the seed farm, under the Agricultural Department, achieve carbon neutral status.
- The total amount of carbon emission from the farm, located at Thuruthu in Aluva, in the last one year was 43 tons but its overall procurement was 213 ton.
- Compared to the emission rate, as many as 170 tons of more carbon have been procured at the farm, which helped it to be declared as the first carbon neutral seed farm in the country.
- Carbon neutral agricultural methods would be implemented through women's groups and such interventions would be made in the tribal sector as well.

- Even as the state moves towards the goal to achieve food self-sufficiency, plans to maintain ecological equilibrium are also equally important
- As many as 30 per cent of greenhouse gas emissions come from agriculture and this can be prevented and climate change can be regulated through carbon neutral agricultural practices.

Tamil Nadu Climate Change Mission

- **Context:** Tamil Nadu Chief Minister launched the Tamil Nadu Climate Change Mission to protect the natural resources in the state besides restore them on a long-term basis.

Key Highlights:
- The state is first to launch its own Climate Change Mission to make Tamil Nadu a climate smart state.
- The state will achieve carbon neutrality much ahead of 2070 target set by Prime Minister Narendra Modi.
- The state government announced the launch of the Tamil Nadu Climate Change Mission for an outlay of Rs 500 crore to undertake climate change management and mitigation activities.
- The government also established India's first 'Tamil Nadu Green Climate Company – a special purpose vehicle – to implement three major nature conservation projects namely Green Tamil Nadu Mission, Tamil Nadu Wetlands and Tamil Nadu Climate Change.

NASA's Artemis-1 Mission

- **Context:** NASA's Orion capsule splashed down back to Earth. This event marked the end of the inaugural Artemis 1 lunar mission exactly 50 years after Apollo's final moon landing.

About Artemis 1
- An experimental mission, to check if the capsule can be trusted to ferry humans to the moon and back in future missions.
- It is the first in a series of missions that are planned to not only take humans back to the Moon, but to

also explore the possibilities of extended stay there, and to investigate the potential to use the Moon as a launch pad for deep space explorations.

- It will work towards extracting the resources found on the Moon, building from the materials available there, and harnessing hydrogen or helium as energy sources.

13th DECEMBER, 2022

Sindhuja-I: The Ocean Wave Energy Converter

- **Context:** The Indian Institute of Technology, Madras researchers have developed Sindhuja-I- an ocean wave energy converter that is capable of generating electricity straight from the moving sea waves.

Key Highlights

- Researchers successfully completed the trials for Sindhuja-I device recently at a location around 6 kilometres off the coast of Tuticorin, Tamil Nadu, with a depth of 20 meters.
- The device is targeted towards remote offshore locations that need reliable electricity and communication either by supplying electric power to payloads that are embedded on the device or located nearby on a seabed and in the water column.
- Key target stakeholders for this project are oil and gas, defence and security installations as well as communication sectors.
- The project is the brainchild of IIT Madras faculty professor, AbdusSamad, who has been working on wave-energy tech for over a decade.
- He set up the state-of-the-art 'Wave Energy and Fluids Engineering Laboratory' at IIT Madras.

Bharti Airtel-Meta 2Africa Pearls

- **Context:** Bharti Airtel and Meta have decided to jointly invest in global connectivity infrastructure project that would extend the 2Africa Pearls (a subsea cable) to India.

Key Highlights

- Bharti Airtel would partner Meta to jointly invest in global connectivity infrastructure that would extend a subsea cable the 2Africa Pearls to India.
- When it was launched in 2020, the 37,000-km subsea cable connected 23 countries.
- It has become one of the world's longest subsea cable systems and aims to provide faster internet connectivity to almost 3 billion people.
- It would connect Africa, Europe, and Asia.
- The extended 2Africa Perals branch will include landing locations in Oman, UAE, Qatar, Bahrain, Kuwait, Iraq, Pakistan, India, and Saudi Arabia.
- The landing of 2Africa will improve the connectivity of fixed-line broadband internet in India.
- Airtel has also signed an agreement to help increase the operational efficiency of Open RAN. It will facilitate energy management and automation in radio networks using advanced analytics and artificial intelligence (AI)/machine learning (ML) models.
- The telecom operator said it is conducting trials for 4G and 5G Open RAN solutions on select sites in Haryana. It will commercially deploy the solution across several locations in India over the next few quarters.

ChatGPT Chatbot

- **Context:** OpenAI has unveiled a chatbot called ChatGPT that is available for public testing for free. It has crossed one million users in less than a week since it was officially made available to the public.

Key Highlights

- Artificial intelligence (AI) research laboratory OpenAI has announced ChatGPT, which is a dialogue-based AI chat interface for GPT-3 family of large language models.
- ChatGPT is the latest in a series of AIs which the firm refers to as GPTs, an acronym which stands for Generative Pre-Trained Transformer.

- A chatbot is a software application designed to mimic human-like conversation based on user prompts.
- OpenAI states that their ChatGPT model, trained using a machine learning technique called Reinforcement Learning from Human Feedback (RLHF), can simulate dialogue, answer follow-up questions, admit mistakes, challenge incorrect premises and reject inappropriate requests.
- A tool like ChatGPT could be used in real-world applications such as digital marketing, online content creation, answering customer service queries or as some users have found, even to help debug code.
- The bot can respond to a large range of questions while imitating human speaking styles.
- OpenAI has acknowledged the tool's tendency to respond with "plausible-sounding but incorrect or nonsensical answers", an issue it considers challenging to fix.

14ᵗʰ DECEMBER, 2022

G7's International Climate Club to fight global warming

- **Context:** The Group of Seven leading economies have created an open, international climate club for countries that want to cooperate in the fight against global warming

Key Highlights:

- The climate club aims to support the rapid and ambitious implementation of the Paris Agreement, which seeks to limit global warming to 1.5 degrees Celsius (2.7 degrees Fahrenheit),
- The club will work to help accelerate the industrial transition to cleaner forms of energy and to further develop emission-reduction measures
- The climate club with transition of our industries toward climate neutrality, can make an important contribution to achieving global climate targets

About **G7**

- It is an intergovernmental organisation of seven countries that are the world's most industrialized and developed economies.
- It does not have a formal constitution or a fixed headquarters and the decisions taken by leaders during annual summits are non-binding.
- Together the member countries represent 40% of global GDP and 10% of the world's population.
- Unlike other bodies such as NATO, the G7 has no legal existence, permanent secretariat or official members.
- It also has no binding impact on policy and all decisions and commitments made at G7 meetings need to be ratified independently by governing bodies of member states.
- Present Members: France, Germany, United Kingdom, Italy, United States of America, Canada and Japan.

TDS on Virtual Digital Assets

- **Context:** The government said that it has received 60.46 crore in the form of taxes from entities for transactions in Virtual Digital Assets (VDAs), including cryptocurrencies, since the introduction of TDS provisions in July.

Key Highlights:

- The government had introduced 1 per cent tax deducted at source (TDS) under section 194S of I-T Act on payments over 10,000 towards virtual digital currencies from July 1 to keep a tab on money trail.
- The government had brought in a 30 % income tax plus surcharge and cess on transfer of crypto assets, like Bitcoin, Ethereum, Tether and Dogecoin.
- Post insertion of Section 194S in the Income-tax Act, 1961 through Finance Act, 2022, a total of 318 direct tax challans having TDS code 194S have been received having total amount of Rs 60.46 crore

NPS Prosperity Planner

- **Context:** The Pension Fund Regulatory and Development Authority (PFRDA) has launched "NPS Prosperity Planner" which is a personalized calculator for subscribers to calculate their retirement Income (Annuity) as per the annuity options based on their existing contribution under NPS.

Key Highlights:

- This initiative is a part of Azadi Ka Amrit Mahotsav (AKAM) and the new calculator will allow subscribers to plan for adequacy retirement income.
- NPP provides the tool for higher Retirement Income through Accelerated Contribution plan in the residual period until retirement duly considering inflation and the projected cost of living expenses.

About NPS:

In India, the NPS, which is governed by the PFRDA, is a voluntary structured contribution pension scheme that offers old age income, long-term market returns, and old age security coverage to all residents. NPS provides low-cost retirement planning options to Indian residents. Pension funds managed by NPS are among the lowest-cost money managers, charging a fee based on assets under management of only 0.0009%