



APRIL, 2023



****** Useful for ******

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

8th APRIL, 2023

Indian Space Policy, 2023

• **Context:** The Union Cabinet has approved the Indian Space Policy, 2023.

Key Highlights:

- The policy delineated the roles and the responsibilities of ISRO, space sector PSU NewSpace India Limited (NSIL) and the Indian National Space Promotion and Authorization Center (IN-SPACe)
- It allows the private sector to take part in end-toend space activities that includes building satellites, rockets, launch vehicles, data collection and dissemination.
- The strategic activities related to the space sector will be carried out by NSIL, a public sector undertaking under the Department of Space, which will work in a demand-driven mode.
- INSPACe will be the interface between Indian Space Research Organisation and non-governmental entities.
- ISRO will not do any operational and production work for the space sector and focus its energies on developing new technologies, new systems and research and development.
- The operational part of ISRO's missions will be moved to the NSIL.
- Indian Space Policy, 2023 aims to enhance the role of the Department of Space, boost activities of Indian Space Research Organisation (ISRO) missions and give a larger participation of research, academia, startups and industry.

RBI Monetary Policy

 Context: RBI Governor Shaktikanta Das announced the monetary policy statement of the central bank. The Reserve Bank of India's (RBI's) Monetary Policy Committee (MPC) kept the repo rate, its key lending rate, unchanged at 6.50 per cent, and maintained its stance on "withdrawal of accommodation."

Key Highlights:

- The MPC decided to keep the policy reportate under the liquidity adjustment facility (LAF) unchanged at 6.50%. The standing deposit facility (SDF) rate remains at 6.25%, while the marginal standing facility (MSF) rate and the Bank Rate stay at 6.75%.
- These decisions aim to align inflation with the mediumterm target for consumer price index (CPI) inflation of 4% within a band of +/- 2%, while supporting economic growth.
- Global economic activity has been resilient despite high inflation levels, banking system turmoil in some advanced economies, tight financial conditions, and ongoing geopolitical conflicts. Financial stability concerns have led to risk aversion, flights to safety, and increased financial market volatility.
- The RBI's MPC marginally revised the GDP growth projection upwards to 6.50 per cent for the current financial year of FY 2023-24, from its earlier estimate of 6.4 per cent.
- Headline inflation is moderating, but remains well above the targets of the RBI. These developments have led to heightened volatility in the global financial market. The central bank has projected inflation to marginally decline to 5.2 per cent in FY24.
- India's current account deficit will remain moderate in Q4 FY23 and also eminently manageable going forward.
- The RBI will maintain an agile approach for liquidity management to manage the government's borrowing programme in a non-disruptive manner.

National Curriculum Framework for School Education

• **Context:** The Ministry of Education has released a "pre-draft" version of the National Curriculum Framework for School Education.

Key highlights:

- The Ministry of Education has commenced the development of four National Curriculum Frameworks (NCF), namely NCF for School Education, NCF for Early Childhood Care and Education, NCF for Teacher Education, and NCF for Adult Education.
- The National Steering Committee under the Chairpersonship of Dr K. Kasturirangan was set to undertake and guide the development of NCFs.
- The pre-draft covers the framework of the curriculum for age groups 3 to 18. A key part of the document is the inclusion of values and their "rootedness" in India.
- The document leans towards making students acquainted with true sources of knowledge, which have been a philosophical preoccupation of ancient Indians.
- It focuses on the moral development of a child through panchakosha vikas or five-fold development. This concept is an ancient explanation of the importance of the body-mind link in human experience and understanding.
- It recommends developing moral values for the child through a balanced diet, traditional games, yoga asanas, as well as a wide variety of stories, songs, lullabies, poems, and prayers to develop a love for cultural context.
- The document says that for Grade 10 certification, students will have to take two essential courses from humanities, math and computing, vocational education, physical education, arts education, social science, science and interdisciplinary areas.
- In Grades 11 and 12, students will be offered choicebased courses in the same disciplines for more rigorous engagement.
- For Class 11 and 12, Modular Board Exams will be offered as opposed to a single exam at the end of the year and the final result will be based on the cumulative result of each exam.
- It aims to help in positively transforming the school education system of India as envisioned in NEP

2020, through corresponding positive changes in the curriculum including pedagogy.

- It aims to help change practices in education and not just ideas
- It is this holistic overall transformation of the curriculum that will enable us to positively transform overall learning experiences for students.

9th APRIL, 2023

UN Statistical Commission

• **Context:** India was overwhelmingly elected to the UN Statistical Commission, returning to the world organisation's highest statistical body after a gap of two decades in a highly competitive election.

- India has been elected to the highest statistical body of the United Nations for a four-year term beginning January 1, 2024.
- The United Nations Statistical Commission was established in 1947.
- It is the highest body of the global statistical system bringing together the Chief Statisticians from member states from around the world.
- It is responsible for setting statistical standards and the development of concepts and methods, including their implementation at the national and international levels.
- The commission also oversees the work of the United Nations Statistics Division (UNSD), and it is a Functional Commission of the UN Economic and Social Council.
- Its Headquarter is in New York, USA.
- The Commission consists of 24 member countries of the United Nations elected by the United Nations Economic and Social Council on the basis of equitable geographical distribution.
- India was a member of the Statistical Commission last in 2004 and the country is returning to the UN agency after a gap of two decades.

Mera Gaon Meri Dharohar (My Village My Heritage) programme

 Context: The government has identified and documented distinctive features of more than one lakh villages across the country. This entire exercise has been carried out under the Mera Gaon Meri Dharohar (My Village My Heritage) programme of the National Mission for Cultural Mapping (NMCM).

Key Highlights:

- Mera Gaon Meri Dharohar (My Village My Heritage) programme is being carried out under the National Mission for Cultural Mapping (NMCM).
- The survey seeks to document the cultural identity at the village level by involving citizens to share what makes their village, block or district unique.
- The Ministry of Culture has partnered with the Common Services Centres (CSC), under the Ministry of Electronics & IT (MEITY) for this programme.
- The survey process involves a CSC Village Level Entrepreneur (VLE) conducting meetings with locals and then uploading interesting facts about their village, its places of interest, customs and traditions, famous personalities, festivals and beliefs, art and culture, etc on to a special application.
- More than one lakh villages across the country have been documented till now. Villages have been broadly divided into seven-eight categories based on whether they are important ecologically, developmentally if they produce a famous textile or product and if they are connected to some historical or mythological events.
- For example, the ecological category includes the Bishnoi village near Jodhpur in Rajasthan, which is a case study for living in harmony with nature and Uttarakhand's Raini village which is famous for the Chipko movement.
- There are also villages that have developmental importance like Modhera in Gujarat, which is the first solar-powered village in India.

 Suketi in Himachal Pradesh, Asia's oldest fossil park and Pandrethan in Kashmir, the village of Shaivite mystic Lal Ded are classified for their historical importance.

PRAVAAH

 Context: RBI is set to introduce a new secured web-based portal called "PRAVAAH" (Platform for Regulatory Application, Validation And AutHorisation).

Key Highlights:

- The Reserve Bank of India (RBI) has planned to launch a secured web-based centralised portal named 'PRAVAAH' to simplify and streamline application processes.
- PRAVAAH stands for Platform for Regulatory Application, Validation And AutHorisation.
- The portal will show time limits for deciding on the applications/approvals sought.
- Currently, the application and approval processes for the same take place in varied on-line and off-line modes.
- The new system will bring greater efficiencies into regulatory processes and facilitate ease of doing business for the regulated entities of RBI.
- The facility will be extended to all types of applications made to RBI across all functions.

10th APRIL, 2023

Sukhoi 30 MKI Fighter Aircraft

• **Context:** The President of India Droupadi Murmu took a historic sortie in a Sukhoi 30 MKI fighter aircraft at the Tezpur Air Force Station in Assam.

Key Highlights:

 The President, who is the Supreme Commander of the Indian Armed Forces, flew for approximately 30 minutes covering Brahmaputra and Tezpur valley with a view of Himalayas before returning to the Air Force Station.

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- The aircraft was flown by Group Captain Naveen Kumar, Commanding Officer of the 106 Squadron.
- President Murmu is the third President and second woman President to undertake such a sortie.
- It is a matter of pride that India's defence capabilities have expanded immensely to cover all the frontiers of land, air and sea.
- The President was also briefed on the operational capabilities of the aircraft and the Indian Air Force (IAF). She expressed satisfaction on the operational preparedness of the IAF.
- The President's sortie in the Sukhoi 30 MKI fighter aircraft is a part of her efforts to engage with the armed forces, as the Supreme Commander of the Indian Armed Forces. In March 2023, the President visited INS Vikrant and interacted with officers and sailors on board of the indigenously built aircraft.

50 years of 'Project Tiger'

• **Context:** Recently, the Indian Prime Minister marked the 50th anniversary of Project Tiger by putting out a 5th cycle of India's Tiger Census.

Key Highlights:

- Based on the survey, the tiger population in India has grown from 1,411 in 1972 to 3,167 in 2022. The Prime Minister established the International Big Cats Alliance (IBCA) to further safeguard these great cats. At the same time, a commemorative coin was made to mark the end of 50 years of "Project Tiger."
- The IBCA will focus on the protection and conservation of seven major big cats of the world — Tiger, Lion, Leopard, Snow Leopard, Puma, Jaguar, and Cheetah, with membership in the range of countries harbouring these species.
- India is now home to 75% of the global tiger population and also the "largest tiger range country in the world".
- The Prime Minister emphasized that wildlife protection was a universal issue and that the IBCA was India's contribution to protecting and conserving big cats.

 Additionally, he released a booklet named 'Amrit Kaal Ka Tiger Vision', which outlines the vision for tiger conservation in the next 25 years

11th APRIL, 2023

2023 International Prize in Statistics

 Context: Indian-American statistician Calyampudi Radhakrishna Rao has been awarded the 2023 International Prize in Statistics often referred to as the Nobel Prize of Statistics.

- The International Prize in Statistics is awarded every two years by a collaboration among five leading international statistics organizations.
- The prize recognizes a major achievement by an individual or team in the statistics field, particularly the achievement of powerful and original ideas that have led to practical applications and breakthroughs in other disciplines.
- He was awarded for his groundbreaking paper, 'Information and accuracy attainable in the estimation of statistical parameters' published in 1945. It demonstrated three fundamental results that paved the way for the modern field of statistics:
- Cramér-Rao lower bound provides a means for knowing when a method for estimating a quantity is as good as any method can be.
- Rao-Blackwell Theorem provides a means for transforming an estimate into a better—in fact, an optimal—estimate.
- Information geometry integrate principles from differential geometry into statistics, including the concepts of metric, distance, and measure. Information geometry has recently been used to aid the understanding and optimization of Higgs boson measurements at the Large Hadron Collider, the world's largest and most powerful particle accelerator.

MADE EASY

Sagarmala Innovation and Start-up Policy

• **Context:** Sagarmala Innovation and Start-up Policy draft issued for Stakeholder Consultation by Ministry of Ports, Shipping and Waterways (MoPSW).

Key Highlights:

- Its aim is to nurture start-ups and other entities to cocreate the future of India's growing maritime sector.
- The policy identified several key areas for the startups to flourish which include: decarbonisation, optimizing processes through data, maritime education, multimodal transportation, manufacturing, alternate/ advanced materials, maritime cybersecurity, smart communication and marine electronics.
- Digital Portal-based selection of startups ensuring a transparent process.
- It Grants to create a minimum viable product/ service (MVP), commercialization of proprietary technology including market entry or scaling up.
- The Creation of 'Launch pads' at Ports for carrying out trials, facilitating pilot projects, establishing working space and adopting products and solutions.
- The Annual Start-up Awards in the maritime sector recognizing distinguished efforts of innovation.
- It Provide legal and accountancy backup to startups for IP-patent filing, company registration, annual filings and closures.

About Maritime Innovation Hubs (MIH):

- The promotion of startups will be through the Maritime Innovation Hubs (MIH). It shall perform the following functions:
- It serves as the hub of the startup ecosystem for national and international collaboration
- It Develop a central database for all pertinent information to assist emerging entrepreneurs in the maritime industry.
- It Attract investment for eligible start-up businesses and innovative maritime technology

About Sagarmala Initiative:

- It was Launched in 2015 by the Ministry of Ports, Shipping and Waterways.
- Its aim is to promote port-led development in the country through harnessing India's 7,500 km long coastline, 14,500 km of potentially navigable waterways and strategic location on key international maritime trade routes.
- Its vision to reduce logistics costs for EXIM and domestic trade with minimal infrastructure investment.

Project Elephant

• **Context:** The President of India took part in Gaj Utsav at Kaziranga National Park and Tiger Reserve (KNPTR) in Assam to mark 30 years of Project Elephant.

- Project Elephant was launched in 1992 as a Centrally Sponsored Scheme.
- Its objective is Conservation and protection of the viable populations of wild elephants in their natural habitats in the country.
- Creating a viable mechanism to ensure inter-state and regional and national level coordination in protecting and conserving the elephant and its ranges.
- As per the 2017 census, the current population estimates for Asian elephants in India are about 30,000.
- Asian elephants are confined to South Asia and South East Asia and about 60% of the global population of Asian elephants is found in India.
- In India, elephants were declared as a National Heritage Animal in the year 2010.
- In IUCN Red List Asian elephants are listed as "Endangered ". This has been done as most of the range states except India, have lost their viable elephant populations due to loss of habitats & poaching etc.
- Indian Elephant has also been listed in Appendix I of the Convention of the Migratory Species in the Conference of Parties of CMS 13 at Gandhi Nagar, Gujarat

12th APRIL, 2023

Copernicus Programme

• **Context:** According to the Copernicus Climate Change Service (C3S), March 2023 saw variations on several meteorological fronts. Copernicus programme found that the world had the second joint warmest March on record and Antarctic Sea ice was the second lowest on record.

Key Highlights:

- Copernicus is the most ambitious Earth observation programme to date.
- It provides accurate, timely and easily accessible information to improve the management of the environment, understand and mitigate the effects of climate change and ensure civil security.
- This initiative is headed by the European Commission (EC) in partnership with the European Space Agency (ESA).
- The services provided by Copernicus fall into 6 categories that is Land management, the marine environment, the atmosphere, emergency response, security and climate change.
- Copernicus is served by a set of dedicated satellites the Sentinel families and contributing missions (existing commercial and public satellites). The Sentinel satellites are specifically designed to meet the needs of the Copernicus services and their users.
- Since the launch of Sentinel-1A in 2014, the European Union set in motion a process to place a constellation of almost 20 more satellites in orbit before 2030.

State Energy Efficiency Index 2021-22

• **Context:** The Ministry of Power has released the State Energy Efficiency Index (SEEI) 2021-22.

Key Highlights:

 The State Energy Efficiency Index (SEEI) 2021-22 is developed by Bureau of Energy Efficiency (BEE) in association with Alliance for an Energy Efficient Economy (AEEE).

- SEEI is a tool designed to track Energy Efficiency initiatives in the states and UTs.
- It provides insights on focus areas of intervention with respect to state-level policy adoption, effective implementation, and monitoring
- There are four categories in the index i.e. Front Runner, Achiever, Contender and Aspirant.
- Front Runner category (>60 points) It has 5 states -Andhra Pradesh, Karnataka, Kerala, Rajasthan and Telangana.
- Achiever Category (50-60 points) Assam, Haryana, Maharashtra, Punjab.
- The objective of the Index is driving decarbonisation efforts in states and outlining recommendations to help states drive change in energy efficiency, which will contribute towards the fulfilment of SDGs and NDC.

Cyber Surakshit Bharat initiative

 Context: National e-Governance Division (NeGD) has organised 35th Chief Information Security Officers (CISO) Deep-Dive training programme Under the Cyber Surakshit Bharat initiative.

- The programme, Cyber Surakshit Bharat, an initiative of MeitY was conceptualised with the mission to spread awareness about cyber-crime and build capacities of CISOs and frontline IT officials, across all government departments, for ensuring adequate safety measures to combat the growing menace – Organisations need to defend their digital infrastructure and become future-ready in tackling cyber-attacks
- The deep-dive training specifically aims at educating and enabling CISOs to understand cyber-attacks comprehensively and thoroughly, get necessary exposure in latest technologies of safeguard, and translate the benefits of a resilient e-infrastructure to individual organisations and citizens at large.

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- The training also focuses on providing a holistic view of legal provisions, enabling CISOs to formulate policies in the domain of cyber security and build concrete cyber crisis management plans.
- The training programme will bring together an array of subject matter experts from the industry, academia and the government to speak on key domain issues of cyber security, such as Governance Risk and Compliance, Landscape of Cyber Security Products in India, End Point & Digital Workplace Security, Network Security, Application and Data Security, CCMP & Incident Response, Mobile Security, Cryptography, Cyber Security Testing and Audit, Cyber Security related Provisions of IT Act and ISMS Standards including ISO 27001, Security Logging and Operation & Monitoring of Security Operation Centre.
- The CISO training is the first-of-its-kind partnership between the Government and industry consortium under Public Private Partnership (PPP) model.

13th APRIL, 2023

Tropospheric Emissions Monitoring of Pollution (TEMPO)

 Context: SpaceX Falcon 9 rocket launched the Tropospheric Emissions Monitoring of Pollution (TEMPO) instrument from Florida, USA, to monitor air pollution from space.

Key Highlights:

- Tropospheric Emissions Monitoring of Pollution is a NASA device that can track air pollution over North America from space.
- It will allow scientists to monitor air pollutants and their emission sources down to the neighbourhood level.
- A unique feature of TEMPO is that it will be hosted on an Intelsat communications satellite in a geostationary orbit.
- Existing pollution-monitoring satellites are in low Earth orbit, which means they can only provide observations once a day at a fixed time.

 More than 40% of the US population, 137 million people, live in places with unhealthy levels of particle pollution or ozone. Air pollution is blamed for some 60,000 premature deaths a year.

LIGO-India project

 Context: The Government of India has given a go-ahead to Rs 2,600-crore project for setting up a Laser Interferometer Gravitational Wave Observatory-India (LIGO-India) in the Hingoli district in Maharashtra.

- LIGO is the world's most powerful observatory that exploits the physical properties of light and of space itself to detect and understand the origins of gravitational waves.
- LIGO-India will be an advanced gravitational-wave observatory to be located in Maharashtra, India, as part of a worldwide network. It is envisaged as a collaborative project between a consortium of Indian research institutions and the LIGO Laboratory in the USA, along with its international partners.
- It will be built by the Department of Atomic Energy and the Department of Science and Technology, with a memorandum of understanding (MoU) with the National Science Foundation, the US, along with other institutions.
- LIGO-India would be the fifth node of this international network of gravitational wave observatories, and possibly the last.
- For India, LIGO is a momentous milestone. India has been an active collaborator in a number of international science projects. These include the Large Hadron Collider experiments, and ITER, the effort to create a thermonuclear reactor that would enable controlled nuclear fusion reactions.
- However, India has not yet built a cutting-edge scientific facility on this scale on its own soil, something that can have huge spin-off benefits for its science and technology sector.

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 The India-based Neutrino Observatory, one such facility that has been planned in India, has been facing delays. Therefore, LIGO is crucial to demonstrating India's intent and capability to pull-off complex science projects on its own.

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3D Printing Technology

 Context: According to recent news reports, a 3D-printed post office is being built in Bengaluru, India, which will be the first of its kind in the country.

Key Highlights:

- The cost of constructing this post office is estimated to be 30 to 40 percent lower than that of a traditional building, and it is expected to be completed within 30 days.
- 3Dprinting is an additive manufacturing process in which a physical object is created from a digital design by printing thin layers of material and then fusing them together.
- 3D printing technology is a fast-emerging technology.
- 3D Printing is widely used in the world. It is increasingly used for the mass customization, and production of any type of open-source designs in the field of agriculture, in healthcare, the automotive industry, the locomotive industry, and aviation industries.
- It can print an object layer-by-layer deposition of material directly from a computer-aided design (CAD) model.
- It is available for various segments, such as affordable housing up to G+3 floor, military barracks, single-floor schools, warehousing, accommodation, and villas.

Good Friday Agreement

• **Context:** The US President Joe Biden recently visited Belfast, the capital of Northern Ireland to mark the 25th anniversary of the Good Friday Agreement.

Key Highlights:

• The Good Friday Agreement also known as the Belfast Agreement was signed on 10th April 1988.

- It was a political deal designed to bring an end to 30 years of violent conflict in Northern Ireland, known as the Troubles.
- The agreement is based on the idea of cooperation between communities. It set up a new government for Northern Ireland, representing both nationalists and unionists.
- The agreement says Northern Ireland is part of the UK and this can change only through a referendum

 if most people in Northern Ireland want it to. People
 born in Northern Ireland can have Irish or British nationality or both.
- As part of the agreement, armed groups agreed to dispose of their weapons. People who had been involved in violence were released from prison.

Large Hadron Collider (LHC)

• **Context:** The Large Hadron Collider (LHC) built by the European Organization for Nuclear Research (CERN) is on the energy frontier of physics research, conducting experiments with highly energized subatomic particles.

- Large Hadron Collider is the world's largest and highest-energy particle collider.
- It was built by European Organization for Nuclear Research (CERN) between 1998 and 2008 in collaboration with over 10,000 scientists.
- The accelerator lies in a tunnel 100 meters underground at CERN, the European Organization for Nuclear Research, on the Franco-Swiss border near Geneva, Switzerland.
- Its purpose is to study minuscule subatomic particles which are the smallest known units of matter and the building blocks of all things.
- Its work involves sending beams of protons, which are positively charged particles present in the nucleus of atoms, speeding towards each other at nearly the speed of light in the 27-kilometre ring of the LHC.

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- Scientists will record and analyze the collisions of the particles in the two beams as part of a set of experiments, which will be used to study dark matter, dark energy and other mysteries of the universe.
- In 2012, scientists at CERN announced to the world the discovery of the Higgs boson or the 'God Particle' during the LHC's first run. This led to Peter Higgs and his collaborator François Englert being awarded the Nobel Prize for physics in 2013.
- LHC is the biggest and most complex machine in the world and it may have paved the way for some of the most important scientific discoveries in recent times including the Higgs Boson.
- But CERN has plans for a future machine that will be called the Future Circular Collider. Compared to the 13.6 trillion electron volts energy level of LHC, the Future Circular Collider will work at energy levels of up to 100 trillion electron volts.
- The Future Circular Collider is an even bigger machine aimed at ensuring the seamless continuation of the world's particle physics programme in the post-LHC era.

Tamil Nadu's Cumbum grapes

• **Context:** The Cumbum grapes of Tamil Nadu have recently been given the Geographical Indication (G.I.) tag.

Key Highlights:

- Cumbum Panneer Thratchai also known as Cumbum grapes, is a variety of grapes grown in the Cumbum Valley located at the Western Ghats in Tamil Nadu, India.
- These grapes were introduced in Tamil Nadu in 1832 by a French priest.
- A unique factor is that in this Cumbum valley the 'panneer' grapes are available and harvested all through the year as against only during January and April in the rest of India.
- The grapes grown are suitable for making wine, spirit, jams, canned grape juice and raisins.

The Cumbum grapes are rich in vitamins, tartaric acid, and antioxidants, and reduce the risk of some chronic diseases.

