



# WEEKLY CURRENT AFFAIRS

**FEBRUARY, 2024**

**Week-4**

**22-29 Feb., 2024**

★★ Useful for ★★

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

## 22<sup>nd</sup> FEBRUARY, 2024

### Status of Working Women in India

- **Context:** Recently, the Supreme Court of India said that termination of a woman's employment due to marriage is gender discrimination, and unconstitutional.

#### Key Highlights:

- As per the Union Budget 2022, the overall workforce participation rate in India is 20.3%, of which 18.2% is in Urban India.
- Women's employability stands at 51.44% for 2022, compared to 41.25% in 2021.
- Female Labour Force Participation Rate in the country has improved significantly by 4.2% points to 37.0% in 2023, as per the 'usual status' concept of measuring labour force participation.
- The presence of girls/women in Science, Technology, Engineering and Mathematics (STEM) is 43%, which is one of highest in the world.
- India is presently one of the only 15 countries in the world with a woman Head of State.
- National Family Health Survey 5 (NFHS 5): It says 88.7% women participate in major household decisions today as against 84% five years ago.
- In the 2019 Lok Sabha election for the first time in the country since independence, 81 women were elected as Members of Lok Sabha.
- There are over 1.45 million or 46% women elected representatives in Panchayati Raj Institutions (against mandatory representation of 33%).

### Raisina Dialogue

- **Context:** Prime Minister Modi will inaugurate the 9th edition of Raisina Dialogue in New Delhi.

#### Key Highlights:

- The three-day Raisina Dialogue will witness the participation of representatives from over 100 countries including Ministers, Technology Leaders, Academics, Scholars on Strategic Affairs etc.

- Prime Minister of Greece, Kyriakos Mitsotakis, will join the inaugural session as the Chief Guest.
- The theme of the 2024 edition is "Chaturanga: Conflict, Contest, Cooperate, Create".
- Over the event, attendees will engage in discussions on six thematic pillars:
  1. **Tech Frontiers:** Regulations & Realities
  2. **Peace with the Planet:** Invest & Innovate
  3. **War & Peace:** Armouries & Asymmetries
  4. **Decolonising Multilateralism:** Institutions & Inclusion
  5. **The Post 2030 Agenda:** People & Progress; and
  6. **Defending Democracy:** Society & Sovereignty.

#### About Raisina Dialogue:

- The Raisina Dialogue is India's premier conference on geopolitics and geoeconomics committed to addressing the most challenging issues facing the global community.
- The first session was held in 2016.
- It is hosted by the Delhi-based Observer Research Foundation, in collaboration with the External affairs ministry of India.

## 23<sup>rd</sup> FEBRUARY, 2024

### MTEX-24

- **Context:** The Maritime Technical Exposition (MTEX-24) stands as a special attraction in the MILAN 2024 taking place in Visakhapatnam.

#### Key Highlights:

- It is a three-day exposition and fosters collaboration and knowledge exchange between industry leaders, researchers, and defence professionals
- It showcases the latest advancements in naval technology viz shipbuilding, communication systems, cybersecurity, and sustainable energy solutions.
- It will be driving technological advancements and strengthening professional relations with friendly foreign navies.
- It will propel the Indian maritime industry forward, contributing to a more secure and prosperous future.

## Atal Vayo Abhyuday Yojana (AVYAY)

- **Context:** The Department of Social Justice and Empowerment develops and implements programmes and policies for senior citizens in close collaboration with State Governments, NGOs and the civil society.

### Key Highlights:

- A Central Sector Scheme to improve the quality of life of the Senior Citizens.
- Implemented by: The Department of Social Justice and Empowerment.
- To improve the quality of life of the Senior Citizens by providing basic amenities like shelter, food, medical care and entertainment opportunities and by encouraging productive and active ageing through providing support for capacity building.

## INDUS-X Summit

- **Context:** Recently, the second edition of India-U.S. Defence Acceleration Ecosystem (INDUS-X) Summit was held in New Delhi, India.

### Key Highlights:

- It is a collaborative effort between India and the United States in defence innovation.
- It is organised by Innovations for Defence Excellence (iDEX) under the Department of Defence Production, Ministry of Defence, and Department of Defence (DoD), United States, in conjunction with the U.S.-India Business Council and Society of Indian Defence Manufacturers.

### Significances:

- It aims to expand strategic technology partnerships and defence industrial cooperation between the Indian and U.S. governments, businesses, and academic institutions.
- It represents a pivotal moment for advancing defence innovation and collaboration between India and the United States, setting the stage for future technological advancements and strategic partnerships.

24<sup>th</sup> FEBRUARY, 2024

## First Private Spacecraft Landing on Moon

- **Context:** The Odysseus lunar lander, has become the first US-made spacecraft to touch down on the moon in 50 years.

### Key Highlights:

- Spacecraft Odysseus built and flown by Texas-based company Intuitive Machines landed near the south pole of the moon.
- It is also the first commercial spacecraft to make a touchdown on the moon.
- Odysseus is the first craft launched from the US to land on the moon's surface since Apollo 17 in 1972.
- The lunar lander is designed to evaluate the environment at the moon's south pole as NASA prepares to send a crewed mission in 2026 with Artemis III.
- The mission is expected to pave the way under NASA's Commercial Lunar Payload Services (CLPS) program, designed to deliver instruments and hardware to the moon at lower costs.

## Digital Public Infrastructures (DPIs)

- **Context:** Digital Public Infrastructures (DPIs) are likely to help propel India towards a \$1 trillion digital economy by 2030, helping it to become an \$8 trillion economy, a NASSCOM report said.

### Key Highlights:

- By 2030, DPIs will significantly enhance citizens' efficiency and promote social as well as financial inclusion.
- According to the report, mature DPIs such as Aadhaar, UPI, and FASTag which have witnessed exponential adoption by 2022 would in the next 7-8 years offer an opportunity for further scalability, reaching even the most remote population.

- Mature DPIs have generated a value of \$31.8 billion, equivalent to 0.9% of India's GDP.
- Digital Public Infrastructures (DPIs) are digital platforms and systems that support the delivery of essential public services to citizens and businesses.
- They act as foundational layers, enabling various digital solutions to be built upon them and also act as digital highways facilitating seamless interactions between different stakeholders.
- India's DPI ecosystem, known as India Stack, has made significant strides in recent years.
- India Stack is a set of open APIs and digital public goods that aim to unlock the economic primitives of identity, data, and payments at population scale.

25<sup>th</sup> FEBRUARY, 2024

## FDI in Space Sector of India

- **Context:** Recently, the Union Government approved 100% FDI in the Space sector.

### Key Highlights:

- The Indian Space Economy is estimated at around \$8.4 billion (around 2-3% of global space economy).
- India has privatised space launches and is targeting a five-fold increase in its share of the global launch market.
- Budgetary Allocation: The Department of Space has received a nominal hike of 4% in its allocation in the Interim Union Budget for 2024-25, from ₹12,545 crore to ₹13,043 crore.
- It is expected that with the implementation of the Indian Space Policy 2023, \$44 billion Indian space economy can be achieved by the year 2033.
- The number of Space Start-Ups have gone up, from just 1 in 2014 to 189 in 2023 as per DPIIT Start-Up India Portal.
- The investment in Indian Space Start-Ups has increased to \$ 124.7 Million in 2023.

## ISRO's CE-20 engine

- **Context:** ISRO has recently accomplished the human rating of its cryogenic engine (CE20), which powers the cryogenic stage of the human-rated LVM3 launcher for India's first human space flight mission Gaganyaan.

### Key Highlights:

- It is an indigenous cryogenic engine developed by ISRO that powers the cryogenic stage of the human-rated LVM3 launch vehicle for Gaganyaan mission.
- It is the first cryogenic engine to use the gas-generator cycle. This discards the exhaust from the pre-burner instead of sending it to the combustion chamber. It reduces fuel efficiency. However, it makes the CE-20 engine easier to build and test.
- It is a vital component, serving as the powerhouse of the Cryogenic Upper Stage (CUS) responsible for propelling the upper stage (C25) of the LVM3 vehicle.
- It achieves a higher maximum thrust (~200 kilonewton v. 73.5 kilonewton) with a shorter burn duration.
- It has demonstrated its capability by successfully operating at a thrust level of 19 tonnes in six successive LVM3 missions, including the Chandrayaan-2, Chandrayaan-3, and two commercial OneWeb missions.

26<sup>th</sup> FEBRUARY, 2024

## Nordic-Baltic cooperation

- **Context:** The eight Nordic-Baltic countries are participating in the Raisina Dialogue in New Delhi together as representatives of the Nordic-Baltic cooperation.

### Key Highlights:

- The NB8 is a regional cooperation format that brings together the Nordic countries and the Baltic States. In 2000, it was decided that the Nordic-Baltic cooperation format would be called Nordic-Baltic Eight (NB8).

- To discuss important regional and international issues in an informal atmosphere
- It comprises five Nordic countries: Denmark, Finland, Iceland, Norway, and Sweden.
- **Three Baltic states:** Estonia, Latvia, and Lithuania.
- They are members of the European Union except Iceland and Norway
- The Nordic-Baltic cooperation with India spans fields as diverse as innovation, green transition, maritime, health, intellectual property rights, new technologies, space cooperation etc. Trade and investment figures between the Nordic region and India are steadily increasing

## Sudarshan Setu

- **Context:** Recently, Prime Minister Shri Narendra Modi inaugurated the Sudarshan Setu bridge in Gujarat.

### Key Highlights:

- 'Sudarshan Setu' is the country's longest cable-stayed bridge.
- It is on the Arabian Sea, connecting Beyt Dwarka island to mainland Okha in Gujarat's Devbhumi Dwarka district.
- It has a unique design, featuring a footpath adorned with verses from Srimad Bhagavad Gita and images of Lord Krishna on both sides.
- The bridge is energy efficient as solar panels installed on the bridge will provide electricity for the illumination of the bridge at night.
- The bridge is 2.32 km in length which, includes 900 metres of central double span cable-stayed portion.
- The bridge was earlier known as 'Signature Bridge'. It has now been renamed as 'Sudarshan Setu' or Sudarshan Bridge.
- Beyt Dwarka is an island near Okha port, which is nearly 30 km from Dwarka town, where the famous Dwarkadhish temple of Lord Krishna is situated.
- Earlier, the devotees visiting the temple at Beyt Dwarka could travel only during the day by boat.

However, after the construction of the bridge, they can now travel at all times.

27<sup>th</sup> FEBRUARY, 2024

## Sub National Climate Fund

- **Context:** Recently, Goa became the 1st state to get the World Bank backed Sub National Climate Resilient Green Fund.

### Key Highlights:

- Goa's government has partnered with the World Bank to set up a unique finance facility to strengthen climate resilience.
- **Stakeholders:** Under the framework of the Blended Finance facility, the Department of Environment, Government of Goa, has signed Memoranda of Understanding (MoUs) with key financial institutions, including the National Bank for Agriculture and Rural Development (NABARD), the Small Industries Development Bank of India (SIDBI), and the Power Finance Corporation (PFC).
- The announcement of the Blended Finance facility was made during the 2024 edition of the World Bank's India Climate and Development Partners' Meet held in Panaji from February 19 to 21.
- The fund is being set up as an outcome of 100% renewable energy plan for Goa, which was announced at the G20 Summit.
- This initiative marks a significant step towards accessing and mobilizing concessional finance to implement low-carbon and climate-resilient investments in Goa.
- This facility is one of the first sub-national facilities of its kind in India. This will serve as a template for other states to adopt at the national level.
- Key sectors earmarked to benefit from blended finance investments include e-mobility, renewable energy, biodiversity conservation, coastal protection, and green tourism, among others.

### About Green Climate Fund:

- The Green Climate Fund (GCF) was set up in 2010 as a financial mechanism under the United Nations Framework Convention on Climate Change (UNFCCC).
- The GCF mechanism allows funding from developed countries to developing countries to allow them to mitigate climate change and also adapt to disruptions arising from a changing climate.
- The GCF is based in Incheon, South Korea. It is governed by a Board of 24 members and supported by a Secretariat.
- The Fund also targets societies that are vulnerable to the effects of climate change, in particular Least Developed Countries (LDCs), Small Island Developing States (SIDS), and African States.

### India's Poverty levels declined to below 5%

- **Context:** NITI Aayog has claimed that India's poverty level has fallen to just five percent, citing the Household Consumption Expenditure Survey (HCES) 2022-23.

### Key Highlights:

- The urban-rural consumption divide has narrowed to 71% in 2022-23 from a peak of 91% in 2004-05, so inequality is declining.
- Rural households spending on food has dropped below 50% of their total expenditure for the first time ever.
- There is a sharp rise in urban and rural consumption by over 2.5 times from 2011-12 levels in current prices, hence India's growth is not restricted to a few, but is very broad-based.
- As per the Niti Aayog's multi-dimensional poverty index 2023, 11% of the population was below the poverty line, based on which it has argued that 25 crore people have escaped poverty.

### Government Steps for Poverty Elevation

- **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS):** It provides at least one hundred days of unskilled manual work in a financial year to every household in rural areas as per demand resulting in creation of productive assets of prescribed quality and durability.
- **National Food Security Act (NFSA), 2013:** It gives legal entitlement to 67% of the population (75% in rural areas and 50% in urban areas) to receive highly subsidized foodgrains.
- **Pradhan Mantri Ujjwala Yojana (PMUY) (2016):** This initiative was introduced to provide LPG (liquefied petroleum gas) connections to women belonging to Below Poverty Line (BPL) families.
- **Deendayal Antyodaya Yojana-National Rural Livelihood Mission (DAY-NRLM):** It aims to reduce poverty by enabling the poor household to access gainful self-employment and skilled wage employment opportunities resulting in sustainable and diversified livelihood options for the poor.
- **Ayushman Bharat scheme:** It offers health insurance coverage of up to 5 lakh per family per year to shield beneficiaries from the financial burden of expensive medical treatments, thereby preventing them from falling deeper into poverty due to healthcare costs.

28<sup>th</sup> FEBRUARY, 2024

### Garbhini – GA2

- **Context:** BRIC-THSTI Faridabad and IIT Madras researchers have developed an India-specific model to determine the age of a foetus in a pregnant woman in the second and third trimesters precisely.

### Key Highlights:

- Currently, the age of a foetus (gestational age, GA) is determined using a formula developed for Western populations and are likely to be erroneous when applied in the later part of pregnancy due to variations in the growth of the foetus in the Indian population.

- The newly developed second and third-trimester GA formula, Garbhini-GA2, accurately estimates the age of a foetus for the Indian population, reducing error by almost three times. Accurate GA is necessary for the appropriate care of pregnant women and for determining precise delivery dates.
- The model has been designed by researchers at the Indian Institute of Technology Madras and the Translational Health Science and Technology Institute, Faridabad.
- It is part of an interdisciplinary group for advanced research on birth outcomes — the DBT India initiative (GARBH-Ini) programme launched in 2014, by the Department of Biotechnology.
- The Garbhini-GA2 is the first late-trimester GA estimation model to be developed and validated using Indian population data.
- Currently, models used for the Western population are in use which could prove erroneous when applied in the later part of pregnancy due to variations in the growth of the foetus in the Indian population.
- Accurate GA is necessary for the appropriate care of pregnant women and for determining precise delivery dates.
- Under this program, over 94,000 adolescent girls between the age group of 14-18 years registered under Poshan Tracker at approximately 10,000 Anganwadi Centres will be benefited in a 12-month period.
- The coordinating agency for the project will be the Central Council for Research in Ayurvedic Sciences (CCRAS).
- Ayurvedic medicines like Drakshavaleha and Punarnavadi mandoor will be given to improve the health of these anaemic adolescent girls for three months.
- These Ayurvedic interventions, backed by evidence from institutions like the Indian Council of Medical Research (ICMR), will offer a cost-effective solution to tackle anaemia.

29th FEBRUARY, 2024

## Genome India Project Completed

- **Context:** The government recently announced the completion of sequencing 10,000 healthy genomes from various regions across the country, representing 99 different populations.

### Key Highlights:

## Mission Utkarsh

- **Context:** Recently, the Union Ministry of AYUSH and Women & Child Development signed an MoU for improving the nutrition among adolescent girls.

### Key Highlights:

- It is a joint public health initiative by the Ministries of Ayush and Women and Child Development.
- It is initially be launched as a pilot project in five aspirational districts across five states – Assam (Dhubri), Chhattisgarh (Bastar), Jharkhand (Paschimi Singhbhum), Maharashtra (Gadchiroli), and Rajasthan (Dhaulpur)
- It aims to control anaemia among adolescent girls using Ayurvedic interventions.
- The aim is to establish a comprehensive database of whole-genome sequences out of India.
- The Department of Biotechnology (DBT) has initiated it in 2020.
- To collect 10,000 genetic samples from citizens across India, to build a reference genome
- Its objective is Studying genetic differences in Indians for better diagnosis.
- The project involves 20 institutions across India and is led by the Centre for Brain Research at the Indian Institute of Science in Bangalore.
- Its significance is to study India's genetic diversity for personalized healthcare.

## Stratospheric Aerosol Intervention (SAI)

- **Context:** Recently, researchers studied the impact of stratospheric aerosol intervention (SAI) in mitigation of global warming effects in the region.

### Key Highlights:

- Stratospheric Aerosol Intervention (SAI), also known as Stratospheric Aerosol Injection, is a geoengineering or climate engineering approach that aims to mitigate the effects of global warming.
- It is done by spraying large quantities of tiny reflective particles into the stratosphere to cool the planet by reflecting sunlight back into space.
- Method ranges from spraying reflective particles, such as sulphur dioxides, finely powdered salt or calcium carbonate. These are either sprayed from aircraft or are shot from artillery guns or large hoses to reach the sky.

- It aims to replicate the cooling impact of volcanic eruptions by introducing sulphur dioxide (SO<sub>2</sub>) directly into the stratosphere. Within the stratosphere, the SO<sub>2</sub> transforms into sulfate aerosols that reflect sunlight.
- As more radiation is scattered in the stratosphere by these aerosols, less solar energy is absorbed by the troposphere.

### About Aerosols:

- A tiny solid or liquid particle suspended in air or as a gas is called aerosols.
- Aerosols can be natural, such as fog or gas from volcanic eruptions, or artificial (anthropogenic), such as smoke from burning fossil fuels.
- Aerosols are significant players in the global water cycle as they attract water vapour in the atmosphere, leading to the condensation of water molecules around particles such as dust, soot, salt, or ash.

