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ALL INDIA RADIO

Jan 21

STATE REORGANISATION

(Syllabus: GS Paper 2 – Polity)

Prez Murmu and PM Modi congratulates people of Tripura, Manipur, and Meghalaya on the occasion of their Statehood day

Context: President of India and Prime Minister of India congratulated the people of Tripura, Manipur, and Meghalaya on the occasion of their Statehood Day.

Emergence of new States:

- **Fazl Ali Commission:** It suggested the abolition of the four-fold classification of states and territories under the original Constitution and creation of 16 states and 3 centrally administered territories.
- **States Reorganisation Act (1956) and the 7th Constitutional Amendment Act (1956):** The distinction between Part A and Part B states was done away with and Part C states were abolished. As a result, 14 states and 6 union territories were created on November 1, 1956.
- **Later changes:** Even after the large-scale reorganisation of the states in 1956, the political map of India underwent continuous changes due to the pressure of popular agitations and political conditions.

Manipur, Tripura and Meghalaya

- In 1972, the political map of Northeast India underwent a major change.
- The two **union territories of Manipur and Tripura** and the **sub-state of Meghalaya got statehood** and the two union territories of Mizoram and Arunachal Pradesh (originally known as North-East Frontier Agency–NEFA) came into being.
- Initially, the 22nd Constitutional Amendment Act (1969) **created Meghalaya as an 'autonomous state' or 'sub-state' within the state of Assam** with its own legislature and council of ministers.
- However, this did not satisfy the aspirations of the people of Meghalaya. The union territories of Mizoram and Arunachal Pradesh were also formed out of the territories of Assam.

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NISAR MISSION
(Syllabus GS Paper 3 – Sci and Tech)

NISAR Mission on track for a launch soon: NASA official

The NASA-ISRO Synthetic Aperture Radar Mission is designed to observe natural processes and changes in earth's complex ecosystems; the final tests of the mission are scheduled for this week

Tiki Rajwi
THIRUVANANTHAPURAM

The NASA-ISRO Synthetic Aperture Radar (NISAR) Mission, designed to observe natural processes and changes in earth's complex ecosystems, is on track for an "early 2024" launch, a senior official at NASA's Jet Propulsion Laboratory (JPL) said on Sunday.

The final tests on the earth-observing mission are scheduled for this week, Paul A. Rosen, Project Scientist for NISAR at JPL, told *The Hindu*. "As we speak, everything except the acoustic tests has been completed. The vibration test was completed yesterday [January 20]. Final tests are planned this week. We are on track," Dr. Rosen said.

Dr. Rosen and several of his NASA-JPL colleagues associated with NISAR are scheduled to speak at the Global Science Festival Kerala under way here on Monday.



> NASA and ISRO are extremely eager to find ways to collaborate on earth science, planetary science and human space (programmes). There is a very, very strong interest
>
> PAUL A. ROSEN
> Project Scientist for NISAR at JPL

'Enormous data'

Designed as a low-earth orbit observatory, the NISAR Mission is unique in several respects, not least the enormous amount of reliable, high-resolution data expected from it over a three-year mission life. "The volume of data will be enormous, and it helps us to have a reliable set of measurements over any spot on the earth where we want to do science or monitoring applications, forest management, agriculture monitoring or even just looking at an approaching hurricane," Dr. Rosen said.

The open science and open data policy makes the mission unique in its scope, he said.

"The data will be placed on our respective data servers in India and the U.S. and they will be made open to the public essentially as soon as they are processed to a validated data product. For many SAR (synthetic aperture radar) missions, this is simply not the case," he said.

The mission will use a synthetic aperture radar to scan earth's land and ice-covered regions twice every 12 days in ascending and descending passes. Capable of penetrating cloud cover and operating day and night, NISAR is expected to revolutionise earth-observing capability.

It is also expected to be a reliable data source for disaster monitoring and mitigation.

'Eager to collaborate'

This single observatory solution is equipped with a long wavelength band (L-Band) SAR payload system provided by NASA and a short wavelength band (S-Band) ISRO payload. Operating together, they will supply, the ISRO says, "spatially and temporally consistent data for understanding changes in earth's ecosystems, ice mass, vegetation biomass, sea level rise, groundwater and natural hazards, including earthquakes, tsunamis, volcanoes and landslides."

"For those disasters that evolve over slightly longer periods of time or where you can actually plan an observation, like a hurricane approaching, for those things, you have a reliable data source," Dr. Rosen said.

He feels that NASA and the ISRO are interested in taking their collaboration in space forward. "Both sides I think are extremely eager to find ways to collaborate on earth science, planetary science and human space (programmes). There is a very, very strong interest," he said.

Dr. Rosen will speak on "NISAR – an international radar system of systems for groundbreaking earth science" at the festival on Monday.

Context: The NASA-ISRO Synthetic Aperture Radar (NISAR) mission, designed to observe natural processes and changes in earth's complex ecosystems, is on track for an "early 2024" launch.

NISAR Mission

- **'NASA-ISRO Synthetic Aperture Radar' (NISAR)**
- **Joint Development**: NISAR, the Low Earth Orbit (LEO) observatory, is a collaborative effort **between NASA and ISRO**.
- **Size and Weight**: This SUV-sized satellite boasts a weight of 2,800 kilograms.
- **Dual-Frequency Radar**: NISAR features **both L-band and S-band synthetic aperture** radar (SAR) instruments, making it a unique dual-frequency imaging radar satellite.
- **Capabilities**: To utilize two different radar frequencies (L-band and S-band) for monitoring and measuring changes in the Earth's surface.
- **All-Weather Observations**: The SAR instruments on NISAR are adept at penetrating clouds and can gather data day and night, regardless of prevailing weather conditions.
- **Contributions**: In the collaborative project, **NASA has contributed the L-band radar**, **GPS, a high-capacity solid-state recorder**, and a payload data subsystem. Meanwhile, **ISRO has provided the S-band radar,** the GSLV launch system, and the spacecraft.
- **Gold-Plated Reflector**: NISAR incorporates a substantial 39-foot stationary antenna reflector constructed from gold-plated wire mesh.
- This reflector plays a **crucial role in focusing the radar signals** emitted and received by the upward-facing feed on the instrument structure.

PIB Jan 21

NATIONAL QUANTUM MISSION

(Syllabus: GS Paper 3 – Sci and Tech)

Call for Pre-proposals for setting T-Hubs launched under National Quantum Mission

Context: National Quantum Mission (NQM) was reached with the launch of the call for pre-proposals for setting up Thematic Hubs (T-Hubs) launched by Secretary, Department of Science and Technology.

National Quantum Mission (NQM)

- **Aim**: To empower Indian scientists in developing indigenous technology, systems, devices, and materials essential for advancing research and development in quantum technology.
- **Targets**: Develop intermediate-scale quantum computers with 50-1,000 physical qubits utilizing various platforms such as superconducting and photonic technology.
    - Establish satellite-based secure quantum communications between ground stations spanning a range of 2,000 kilometers within India.
    - Enhance quantum communications security with other countries.
- **Comparison with Classical Computing**: Similar to how a binary bit serves as the fundamental unit of information in classical computing, a qubit (quantum bit) plays the equivalent role in quantum computing.
- **Benefits**: To yield widespread benefits in communication, health, finance, energy, drug design, and space applications.
- **Thematic Hubs (T-hub)**: Quantum computing, Quantum communication, Quantum sensing and metrology and Quantum materials and devices.

DTE

Jan 21

WILDLIFE PROTECTION ACT 1972

(Syllabus: GS Paper 2 – Env and Eco)

New amendments in wildlife trade rules enable issuing licences for certain Schedule II species

Context: The central government has excluded some species from the process of issuing licences for their wildlife trade in the revised rules that have come after four decades.

- The rules from 1983 prohibited issuing licences to trade in a wild animal categorised under Schedule I or Part II of Schedule II under the Wildlife Protection Act 1972.

Wildlife Protection Act, 1972

- **About:** It establishes a legislative framework for the preservation of various wild animal and plant species. It also encompasses the management of habitats, regulation of trade in species' parts, and control of products manufactured from them.
- **Classification under the Act**: The act includes schedules categorizing plants and animals, subjecting them to different levels of government protection and oversight.
- **India's Inclusion in CITES**: The Wildlife Act played a crucial role in India's admission to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- **Constitutional Provisions**: Article 48A of the Indian Constitution mandates the State to safeguard and improve the environment, including the protection of wildlife and forests.
  - This provision was added by the 42nd Amendment in 1976.
- **Article 51A**: It imposes fundamental obligations on Indian citizens, emphasizing compassion for all living things and the preservation and enhancement of the natural environment, including woods, lakes, rivers, and wildlife.

Wildlife (Protection) Amendment Act 2022

- The Bill **reduces the number of schedules from six to four.**
  - Schedule I — Animal species that will enjoy the highest level of protection including those which are critically endangered.
  - Schedule II Animal species that will be subject to a lesser degree of protection
  - Schedule III Protected Plant species
  - Schedule IV Specimens listed in the Appendices under CITES (scheduled specimens).
- **Implementation of CITES**: Addition of Chapter VB provides regulation of international wildlife trade as **per provisions laid by CITES**.
- **Changes in the preamble**: Instead of words “protection of wild animals, birds and plants”, the words “conservation, protection and management of wildlife” were substituted in the preamble.
- **Invasive species: It** provides for the establishment of a Scientific Authority (as per CITES) to advise on matters related to trade of such species.
  - It also grants power to the Central Government to regulate or prohibit import, trade, possession or proliferation of such species.
- **Ownership of captive animals and trophies**: Any person possessing a captive animal or a trophy can voluntarily surrender it to the government without expecting any compensation for the same. Etc.

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PARAKRAM DIWAS

(Syllabus: GS Paper 1 – History)

Parakram Diwas 2024: PM Modi to inaugurate a nine-day event on Tuesday at Delhi's Red Fort

Context: Prime Minister of India will inaugurate the nine-day event marking Parakram Diwas at Delhi's Red Fort

Parakram Diwas

- **About**: Netaji Jayanti, also known as Netaji Subhas Chandra Bose Jayanti, is officially recognized as Parakram Diwas or Parakram Divas ('Day of Valour').
- **Significance**: This national event in India commemorates the birthday of the eminent Indian freedom fighter, Netaji Subhas Chandra Bose.
- **Celebration Date**: The celebration takes place annually on 23 January.

Netaji Subhas Chandra Bose

- **About:** Subhas Chandra Bose, an Indian nationalist leader, played a pivotal role in the country's struggle for independence against British colonial rule.
- **Early Life**: Born on January 23, 1897, in Cuttack, Orissa, Bose showed early signs of leadership and commitment to the cause of India's freedom.
- **Forward Bloc**: In 1939, Bose established the Forward Bloc, an organization aimed at uniting all anti-British forces in India.
- **Formation of Indian National Army (INA)**: With Japanese assistance, Bose reorganized and led the Indian National Army, comprised of Indian prisoners-of-war and plantation workers from Southeast Asia, against British forces.
- **Azad Hind and INA Battles**: Bose formed the Azad Hind Government in exile and led the INA in battles against the Allies at Imphal and in Burma.
- **Death**: Subhas Chandra Bose is believed to have died on August 18, 1945, in a plane crash over Taiwan.

PIB Jan 21

EK BHARAT SHRESHTHA BHARAT
(Syllabus: GS Paper 2 – Govt Scheme)

Ayodhya Tells a Story of Ek Bharat Shreshtha Bharat, One Brick at a Time

Context: Prime Minister's 'Ek Bharat Shreshtha Bharat' initiative resonates deeply with this notion and is a testament to the unwavering faith and generosity that transcends state borders, uniting a nation in the pilgrimage for a temple.

Ek Bharat Shreshtha Bharat

- **About**: The initiative 'Ek Bharat Shreshtha Bharat' was announced by Hon'ble Prime Minister on 31st October, 2015 on the occasion of the 140th birth anniversary of Sardar Vallabhbhai Patel.
- **Ministry**: Ministry of Education
- **Aim**: To enhance interaction & promote mutual understanding between people of different states/UTs through the concept of state/UT pairing.
- **Activities**: Each state and union territory in the nation will be matched with another state/union territory for a designated period, during which they will engage in organized interactions encompassing language, literature, cuisine, festivals, cultural events, tourism, and more.
- **Objectives of the initiative**
  - Celebrate the **Unity in Diversity of our nation and reinforce traditional emotional** bonds among its people.
  - **Foster national integration through a year-long, structured engagement** between all Indian States and Union Territories.
  - Promote the **rich heritage, culture, customs, and traditions** of each State to enhance understanding and appreciation of India's diversity, fostering a shared identity.

THE PRINT Jan 21

MUGHAL MANUSCRIPT PAINTING
(Syllabus: GS Paper 3 – Art and Culture)

Art, aesthetics, patronage – the impact and legacy of Mughal manuscript paintings

Context: Mughal manuscript painting, sponsored as it was by the wealthy Mughal court, used fine quality paper imported from Persia and Italy, as well as pigments derived from rare & expensive minerals.

Mughal manuscript Painting

- **About:** Originating in the mid-sixteenth century, Mughal manuscript painting became a prominent tradition in South Asia and the broader Islamic world.
- **Characteristics**: Naturalism, intricacy, luminosity, and pluralism, Mughal miniature painting incorporated diverse influences from Persian, South Asian, and European Renaissance styles.
- **Influences and Borrowings**: Mughal manuscript painting borrowed from Persian miniatures, pre-existing South Asian manuscript art, and European Renaissance images.
    - The paintings reflected a synthesis of styles and subject matter, showcasing the pluralistic nature of Mughal artistic expression.
- **Establishment of Mughal Atelier**: The Mughal atelier, founded by Ali and al-Samad, played a pivotal role in shaping Mughal manuscript painting, influencing smaller courts in South Asia.
- **Examples:** Tutinama, Akbarnama, Hamzanama and Padshahnama.

LIVEMINT Jan 21

GIR & KANKREJ

(Syllabus: GS Paper 3 – Economy)

The National Dairy Development Board imports 40,000 doses of bull semen from Brazil to increase milk production of Indian native breeds.

Context: India has imported 40,000 doses of bull semen from Brazil for the first time to boost milk output via artificial insemination.

Gir Cattle

- **About:** The Gir cattle breed, integral to Indian dairy farming, is renowned for its robustness and remarkable ability to endure stressful conditions.
- **Agriculture:** Gir bulls, known for their strength, are employed across diverse soil types to efficiently haul heavy loads.
- **Dairy Production**: Gir cattle reign supreme in India, producing an average of 6-10 liters of milk per day. Their popularity is evident, with the breed being widely recognized and favored among Indian dairy farmers.
- **Global Milk Production in Brazil**: Beyond Indian borders, Gir cows showcase their milk-producing prowess, with cows in Brazil yielding an impressive average of 3,500 kg of milk per lactation.
- **Lifespan**: Ranges from 12 to 15 years.

Kankrej

- **About**: It is a breed of zebuine cattle native to India.
- **Origin:** This breed originates from the arid region of the Rann of Kutch in Gujarat and extends to Rajasthan.
- **Also known as**: Bannai, Nagar, Talabda, Vaghiyar, Wagad, Waged, Vadhiyar, Wadhiar, Wadhir, and Wadial.

National Dairy Development Board

- **About:** It is a statutory body set up by an Act of the Parliament of India.
- **Establishment**: 1965
- **Nodal Ministry:** Ministry of Fisheries, Animal Husbandry and Dairying
- **Headquarter**: Gujarat

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KOTHANDARAMASWAMY TEMPLE

(Syllabus: GS Paper 1 – Art and Culture)

Ahead of consecration, PM finishes T.N. temple visits

Modi prays at Kothandaramaswamy Temple, visits Arichalmunai point; in run-up to Ram Temple event, he had said that he would be visiting key temples associated with Lord Ram across country

L. Srikrishna
RAMESWARAM

A day ahead of the Ram Temple inauguration in Ayodhya on Monday, Prime Minister Narendra Modi ended his spiritual tour of Tamil Nadu after visiting the Sri Kothandaramaswamy Temple and Arichalmunai point in Dhanushkodi, situated at the tip of the Indian mainland on Sunday.

In the run-up to the *Pran Pratishtha* ceremony of the Ram Temple in Ayodhya, the Prime Minister had announced that he would be visiting important shrines associated with Lord Rama across the country. Before commencing his tour of Tamil Nadu, he had visited temples in Andhra Pradesh and Kerala.

The Prime Minister, who arrived in Chennai on Friday, had inaugurated the opening ceremony of the Khelo India Youth Games, 2023 in the city. After an overnight stay at the Raj Bhavan, he left for Srirangam, where he visited the Sri Ranganathaswamy Temple.

He arrived in Rameswaram on Saturday afternoon and offered prayers at the Sri Ramanathaswami Temple. After spending the night at the Ramakrishna Math here, he proceeded to the Arichalmunai point in Dhanushkodi, bound by the Palk Bay in the north and the Gulf of Mannar in the south. He offered flowers and performed puja to a *Shivalinga* in Arichalmunai.



Holy expedition: Prime Minister Narendra Modi at the Arichalmunai point in Dhanushkodi on Sunday. It is said to be the place from where the Ram Setu was built. ANI

Walk on the beach

Mr. Modi also took a short walk on the beach while soaking in the view of the sea.

The Prime Minister left Rameswaram by helicopter to the Madurai airport at 11.45 a.m. and on arrival, he boarded a special aircraft to New Delhi, officials said.

A press release said that the Kothandaramaswamy Temple is believed to be the place where Vibhishana, the younger brother of King Ravana, first met Sri Rama and sought refuge. Some legends also state that this was the place where Lord Rama conducted the coronation of Vibhishana as the King of Lanka, before returning to Ayodhya.

The Prime Minister posted on X (formerly Twitter), "Prayed at the iconic Kothandaramaswamy Temple. Felt extremely blessed."

A group of Congress workers in Rameswaram staged a black flag demonstration with placards reading "Go Back Modi" and "Anti-Fishermen Modi", among others. They shouted slogans and also released black balloons before being arrested.

Context: Recently, a day before the Ayodhya Ram Temple inauguration, the Prime Minister of India concluded his spiritual tour of Tamil Nadu, visiting the Sri Kothandaramaswamy Temple and the scenic Arichalmunai point in Dhanushkodi, located at the southern tip of the Indian mainland.

Sri Kothandaramaswamy Temple

- **Location**: Situated in Vaduvur, Tiruvarur district, Tamil Nadu, India, Kothandaramar Temple is a Hindu temple dedicated to Rama, the seventh avatar of Vishnu.
- **Meaning**: The name Kothandarama means Ram with a bow,
- **Spiritual Significance**: Maharishi Valmiki extols the temple, classifying it among the 108 Abhimana Kshethrams in the Vaishnavate tradition. It is also referred to as the Dakshina Ayodhya, signifying the Ayodhya of South India.
- **Pancha Rama Kshethrams**: Kothandaramar Temple holds the distinction of being one of the Pancha Rama Kshethrams, a collection of temples representing specific locations mentioned in the Ramayana.

THE WIRE Jan 21

FREE MOVEMENT REGIME

(Syllabus: GS Paper 2 – IR)

'Fencing Border with Myanmar, Ending Free Movement Regime Soon': Amit Shah



Context: Union home minister Amit Shah has said India is going to fence its border with Myanmar and discontinue the free movement agreement, adding that the border would be "protected like the Bangladesh frontier".

Free Movement Regime

- **About:** The FMR is a mutually agreed arrangement between the two countries that allows tribes living along the border on either side to travel up to 16 km inside the other country without a visa.
- **Implementation**: It was implemented in 2018 as part of the Act East policy, at a time when diplomatic relations between India and Myanmar were on the upswing.
- **Geographical Scope**: Under the FMR, residents of hill tribes, whether Indian or Myanmar citizens, are allowed to travel within a 16 km radius on both sides of the Indo-Myanmar Border (IMB).
- **Border Crossing Procedure**: To cross the border, individuals need to present a border pass issued by the competent authority, valid for one year.
- **Reflecting Deep Bonds**: The FMR symbolizes the profound physical, ethnic, linguistic, cultural, and fraternal connections among trans-border villagers.

Indo-Myanmar Border (IMB)

- **Bordered share with**: Spanning 1,643 km, the IMB traverses four states: Mizoram, Manipur, Nagaland, and Arunachal Pradesh.
- **Boundaries**: Extending from the northern tripoint with China to the southern tripoint with Bangladesh, the IMB is a vital frontier region.

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