



29 January, 2024

## INSAT-3DS

**Context:** ISRO has announced that the INSAT-3DS satellite has been dispatched to the launch site at the Satish Dhawan Space Centre in Sriharikota.

### ➤ Overview of INSAT-3DS Satellite:

- INSAT-3DS is a meteorological satellite developed by ISRO.
- Its primary aim is to continue the services provided by the existing INSAT-3D and 3DR satellites while enhancing the capabilities of the INSAT system.
- The satellite is scheduled to be launched aboard GSLV F14 next month.

### ➤ Development and Testing:

- The satellite underwent assembly, integration, and testing activities at U.R. Rao Satellite Centre in Bengaluru.
- A Pre-Shipment Review involving members from the user community was conducted on January 25, 2024.

### ➤ Technical Details:

- INSAT-3DS is a user-funded project in collaboration with the Ministry of Earth Sciences.
- It is built around ISRO's proven I-2k bus platform and has a lift-off mass of 2275 kg.
- Significant contributions to the satellite's development were made by Indian industries.

### ➤ Payloads:

- The satellite is equipped with advanced payloads for meteorological observations and monitoring of land and ocean surfaces.
- These payloads include a 6-channel Imager, 19-channel Sounder meteorology payloads, Data Relay Transponder (DRT), and Satellite-aided Search and Rescue (SAS&R) transponder.



### ➤ Functionality:

- The DRT instrument receives meteorological, hydrological, and oceanographic data from automatic Data Collection Platforms/Automatic Weather Stations, enhancing weather forecasting capabilities.
- The SAS&R transponder relays distress signals/alerts from beacon transmitters for global search and rescue services coverage.

### ➤ INSAT Satellites

- INSAT, the Indian National Satellite System, is a series of geostationary satellites launched by ISRO.
- Its purpose spans telecommunications, broadcasting, meteorology, and search and rescue operations.
- Commissioned in 1983, it stands as the largest domestic communication system in the Indo-Pacific Region.

- INSAT is a collaborative effort involving the Department of Space, Department of Telecommunications, India Meteorological Department, All India Radio, and Doordarshan.
- The coordination and management of the INSAT system are overseen by the Secretary-level INSAT Coordination Committee.
- INSAT satellites provide transponders across various bands to cater to India's television and communication requirements.
- Some satellites are equipped with Very High-Resolution Radiometer (VHRR) and CCD cameras for meteorological imaging.
- Additionally, they feature transponders for receiving distress alert signals, aiding search and rescue missions in the South Asian and Indian Ocean Region as part of the Cospas-Sarsat program.

## Climate change and war disrupting global trade

**Context:** UNCTAD expressed concern on January 26, 2024, over growing disruptions in global trade due to climate change and conflict affecting shipping in the Black Sea, Red Sea, and Panama Canal.

### ➤ Observations of statement

#### • Impact on Global Trade Routes:

- The crisis has led to significant shifts in trade routes, with ships seeking alternative paths to avoid choke points like the Suez and Panama Canal.
- Disruptions in key trade routes, such as the Black Sea and Red Sea, have altered established trade patterns, affecting the flow of commodities and goods globally.

#### • Consequences for Shipping Industry:

- The shipping industry faces challenges such as increased transit times, higher fuel consumption, and elevated CO2 emissions due to the need for longer routes and faster travel.
- Rising expenses, including shipping and insurance premiums, add to the overall cost of transit, impacting the profitability of shipping companies.

#### • Global Economic Implications:

- Energy prices are experiencing a surge as gas transits are disrupted, particularly affecting European energy supplies.
- The crisis is reverberating in global food prices, with disruptions in grain shipments from Europe, Russia, and Ukraine posing risks to food security and impacting consumers and producers alike.

#### • Vulnerability of Developing Countries:

- Developing countries are particularly vulnerable to trade disruptions, facing challenges in accessing essential goods and resources.
- The impact of rising trade costs and supply chain disruptions is disproportionately felt by developing nations, exacerbating existing economic vulnerabilities.

#### • Need for Collective Action:

- Swift adaptations from the shipping industry and robust international cooperation are essential to address the challenges posed by geopolitical tensions and climate-related disruptions.

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- Collective efforts are required to develop sustainable solutions and support countries vulnerable to trade shocks, ensuring the resilience of global supply chains.
  - **United Nations Conference on Trade and Development (UNCTAD)**
    - UNCTAD, established in 1964 by the United Nations General Assembly, serves as the leading institution globally addressing trade and development.
    - It operates as a permanent intergovernmental body, supporting developing countries in accessing the benefits of globalization more equitably and efficiently.
    - UNCTAD conducts economic and trade analyses, facilitates consensus-building, and offers technical assistance to aid developing nations in utilizing trade, investment, finance, and technology for inclusive and sustainable development.
    - Headquartered in Geneva, Switzerland, UNCTAD is strategically located to engage with international stakeholders and coordinate its efforts effectively.
    - Among its key publications are the Trade and Development Report, World Investment Report, and The Least Developed Countries Report, providing valuable insights and analysis to inform policy-making and international cooperation efforts.
  - **Chief Minister Selection: Constitutional Provisions and Governor's Discretion:**
    - If the legislative assembly results in a hung parliament or in the absence of a clear majority, the Governor may use personal discretion to appoint the CM, usually selecting the leader of the largest party or coalition.
    - In the event of the sudden demise of the incumbent CM, the Governor may need to exercise individual judgment in appointing a successor, typically choosing the new leader elected by the ruling party.
  - **Chief Minister's Tenure: Oaths, Terms, and Salary Dynamics:**
    - The CM's term is contingent upon maintaining the confidence of the legislative assembly and is subject to the Governor's pleasure.
    - They are administered the oaths of office and secrecy by the Governor, with their salary and allowances determined by the state legislature, aligning with those of a member of the legislative assembly.
  - **Empowering the Chief Minister: Portfolios, Committees, and Political Dynamics in State Governance:**
    - The CM holds significant authority in appointing, dismissing, and reallocating ministerial portfolios within the Council of Ministers.
    - They preside over various committees and serve as the primary interface between the state government and the Governor, representing the ruling party's interests and overseeing administrative functions.
  - **Chief Minister's Role in State Governance and Coordination:**
    - The CM serves as the principal liaison between the Governor and the Council of Ministers, conveying decisions and furnishing information as required.
    - They advise the Governor on crucial matters such as appointments to key positions, summoning legislative sessions, and dissolution of the legislative assembly, while also leading government policy discussions and legislative agendas.
  - **Chief Minister and Governor Interaction in State Administration:**
    - Article 163 mandates that the CM communicates all decisions of the Council of Ministers to the Governor and provides necessary information upon request.
    - The CM's role extends to recommending ministerial appointments, chairing cabinet meetings, and coordinating the state's administrative functions, ensuring effective governance and adherence to constitutional principles.
- ### Nitish Kumar sworn in as Chief Minister
- Context:** On Sunday, January 28, JD(U) leader Nitish Kumar was sworn in as Bihar's Chief Minister for the ninth occasion, marking his fifth transition between political affiliations in just over a decade.
- **Constitutional Foundations of Chief Minister's Role in State Governance:**
    - The CM, akin to the Prime Minister at the national level, functions as the de facto executive authority in the state's parliamentary system.
    - Article 163 of the Constitution mandates that the Council of Ministers aids and advises the Governor in the state's administration.
    - While Article 164 specifies that the Governor appoints the CM, it does not outline a specific procedure for selection or appointment.
  - **Chief Minister Appointment Process: Constitutional Guidelines and Parliamentary Conventions:**
    - While the Constitution provides the Governor with the authority to appoint the CM, parliamentary conventions dictate that the leader of the majority party or coalition in the state legislative assembly is typically chosen.
    - In cases where no single party commands a clear majority, the Governor may exercise discretion in selecting the CM, often preferring the leader of the largest party or coalition to form the government.

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## NEWS IN BETWEEN THE LINES

### Supreme Court of India



Recently, the Prime Minister of India inaugurated the Diamond Jubilee celebrations of the Supreme Court of India.

#### About Supreme Court:

- The Supreme Court is the **ultimate judicial authority**, serving as both the final court of appeal and the **highest constitutional court** with judicial review power.
- It was established on **January 28, 1950**, **replaced the Federal Court of India**, which was the highest court during the British colonial period.
- It has the **authority to hear appeals, provide legal remedies and safeguard the rights and justice system for Indian citizens**.
- In **1958**, the court moved into a new building, which was inaugurated by the first President of India, **Dr. Rajendra Prasad, on August 4, 1958**.
- The motto of the Supreme Court of India, as inscribed on its seal, is "**Yato Dharma Tato Jaya**," which translates to "**Where there is Dharma, there is Victory**."
- The design of the Supreme Court building in India is shaped like an **eight-sided polygon**, which resembles the **chakravyuha**, a mythical Indian war formation mentioned in the ancient Indian epic **Mahabharata**.
- The **2.1m black bronze sculpture** crafted by **Chintamani Kar** and installed in **1978** in the Supreme Court of India portrays the "**Mother of Justice**" holding the scales of justice in her right hand and a sword in her left hand.
- The Kesavananda Bharati versus State of Kerala case of **1973** is significant as it resulted in the formulation of the "**basic structure doctrine of the Indian Constitution**" by the Supreme Court of India.
- The first woman judge of the Supreme Court who was sworn into office in 1989 was Justice **M. Fathima Beevi**.

### Simorgh Satellite



Recently, Iran simultaneously launched three satellites for the first time using the Simorgh (Phoenix) satellite carrier rocket.

#### About:

- The Simorgh (**Phoenix**) **Satellite Carrier Rocket** is an **Iranian launch vehicle** that carries research cargo into space.
- It is a **two-stage, liquid-fueled rocket** and the **successor of the Safir**, Iran's first space launch vehicle.
- Its mission is to carry heavier satellites into higher orbit than Safir.
- **One satellite weighing 32 kg (70 pounds)** and **two nano-satellites** of less than **10 kg** each were sent to a minimum orbit of 450 km (280 miles).
- The nano-satellites, named **Kayhan-2** and **Hatef-1**, will be used to test narrowband communication and geopositioning technology.
- The **larger satellite, named Mahda** will aim to test the accuracy of the Simorgh rocket in delivering multiple cargoes to space.

### Pattandur Agrahara lake



Recently, the National Green Tribunal (NGT) has initiated action on alleged encroachments in the buffer zone of the Pattandur Agrahara lake.

#### About Pattandur Agrahara Lake:

- Pattandur Agrahara Lake is a **975-year-old lake** in Bengaluru, India.
- The lake was **built in the 11th century** to commemorate the **32nd year of King Rajendra Chola's rule**.
- An inscription stone was found in April that mentions the **king's gift of land** for the lake's construction.

#### National Green Tribunal:

- The National Green Tribunal (NGT) is an **specialized judicial body** that handles environmental disputes in India.
- It was **established on October 18, 2010**, under the National Green Tribunal Act of **2010**.
- It deals with civil cases related to **environmental protection, forest conservation** and other **natural resources**.
- It **comprises a Chairperson, Judicial Members and Expert Members**, all of whom serve a **non-renewable 5-year term**.
- The **Chairperson is appointed by the Central Government** in consultation with the Chief Justice of India, while a Selection Committee is responsible for the appointment of Judicial and Expert Members.

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## Acid Rain



Recently, Tehran has been grappling with persistent challenges related to air pollution and acid rain.

### About Acid Rain:

- Acid rain is **precipitation (rain, snow, fog)** with **acidic components**, primarily **sulphuric acid (H<sub>2</sub>SO<sub>4</sub>)** and **nitric acid (HNO<sub>3</sub>)**.
- It is mainly **caused by emissions of sulphur dioxide (SO<sub>2</sub>)** and **nitrogen oxides (NO<sub>x</sub>)** from burning fossil fuels like coal and oil, as well as natural sources like volcanic eruptions and lightning strikes.
- SO<sub>2</sub> and NO<sub>x</sub> react with water and oxygen in the atmosphere to form sulphuric acid and nitric acid, respectively, leading to acid rain.
- This rain typically has a pH level **below 5.6**, with values ranging from **4.2 to 4.4** being common.
- It can **harm aquatic life, damages soil quality** and organisms, **corrodes limestone** and **marble structures** and hinders plant growth in sensitive ecosystems.
- Flue-gas desulphurisation (FGD)** is a technology used in coal power plants to reduce SO<sub>2</sub> emissions.
- International cooperation programs like the **Acid Deposition Monitoring Network** in East Asia (EANET) aim to monitor and mitigate acid rain effects on a global scale.

## Personality in News

### Gogi Saroj Pal

### Gogi Saroj Pal (3rd October 1945 – 27th January 2024)

Gogi Saroj Pal, an eminent Indian artist and teacher was born in Neoli, Uttar Pradesh.

### Contributions:

- Gogi Saroj Pal **depicted unequal realities and empowered** women through her artworks, often drawing inspiration from myths and fables.
- Pal's acclaimed series include "**Young Monks**" inspired by the solitary life of monks and "**Aag ka Dariya**" highlighting the issue of female foeticide.
- She **responded to societal issues** such as the **2012 Delhi gang-rape** case with a series dedicated to Nirbhaya, depicting an angry woman with sickles.
- Her artistic vision endures as a radiant milestone in Indian art, credited with over 30 solo exhibitions and leaving behind a legacy of empowering portrayals of women in art.



### Awards and Honours:

- Gogi Saroj Pal received numerous awards and honors, including **Group 8 Medals at All India Graphic Prints Exhibition (1978, 1979, 1981)**, the **Sanskriti Award in 1980**, **Lalit Kala Akademi Fellowship**, Department of Culture Fellowship and a National Award from **Lalit Kala Akademi in 1990**.

### Ethical Values:

Honesty, Dedication, Intellectual Curiosity, etc.

## Place in News

### Nigeria

Recently, it has been revealed that the Federal Government of Nigeria has secured \$7 billion out of the \$14 billion investment deal promised with India during the G20 Summit in India.

### Nigeria (Capital: Abuja)



**Location:** Nigeria an African country located on the Gulf of Guinea. It is officially known as the Federal Republic of Nigeria.

**Boundaries:** Nigeria shares its border with **Chad** and **Cameroon** (East), the **Republic of Benin** (West), **Niger** (North), **Lake Chad** (Northeast) and **The Gulf of Guinea of the Atlantic Ocean** (South).

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**Physical Features:**

- The **Niger, Benue and Kanduna** are the main rivers in Nigeria.
- **Chabbal Waddi**, also known as Gangirwal and the **Mountain of Death**, is Nigeria's highest point.
- The **Adamawa, Mambilla, Jos and Obudu** Plateaus are all in Nigeria.
- The **Niger Delta** is one of the **world's largest river deltas** and the third largest delta on Earth.

**Ethnic Groups:**

- The three largest ethnic groups in Nigeria are the **Hausa** in the North, the **Yoruba** in the West and the **Igbo** in the East.

**Reserves:**

- Nigeria is the **12th largest producer of petroleum in the world**.
- It has a huge reserve of underexploited mineral reserves like **coal, bauxite, gold, tin, iron ore** and **more**, holding substantial economic potential.

## POINTS TO PONDER

- Which institution released the "Finances of Panchayati Raj Institutions (PRIs)" report recently in the news? – Reserve Bank of India
- Where did the 44th All India Criminology Conference of the National Forensic Science University (NFSU) take place? – Gandhinagar
- Which country did India surpass recently to become the fourth-largest equity market globally? – Hong Kong
- Under which ministry does the Border Security Force (BSF) operate? – Ministry of Home Affairs
- From which Indian state did the Grantha script, once utilized for writing Sanskrit, primarily originate? – Tamil Nadu

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