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WHAT IS THE FOREIGN CONTRIBUTION (REGULATION) ACT, 2010?



• It is a law enacted by **Parliament to regulate** foreign contributions (especially monetary donations)

provided by certain individuals or associations to NGOs and others within India.

- The FCRA was originally enacted in 1976 and significantly revised in 2010.
- The Act falls under the purview of the Ministry of Home Affairs (MHA).

'Foreign Contribution' means the donation, delivery, or transfer made by any foreign source of any:

- **Any article** (not being an article given to a person as a gift for his/her personal use, the market value of which is not more than one lakh rupees);
- Any currency, whether Indian or foreign.
- **Any security,** including foreign security.
- This will also cover:
 - Contribution received from any person who has in turn received it from a foreign source.
 - Interest accrued on foreign contributions deposited in the bank
- It creates **registration requirements** and **spending restrictions** on Indian nonprofit organizations receiving foreign donations.
- It aims to prevent foreign organisations from influencing electoral politics, social, political, economic, or religious discussions in India for wrong purposes and activities detrimental to the public interest.
- Contributions made by a citizen of India living in another country (e.g., a Non-Resident Indian (NRI)) from his/her personal savings through the normal banking channels, will not be treated as foreign contributions.

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Who can Receive Foreign Contributions? Any person can receive a foreign contribution provided:

- The person has a **definite cultural, economic, educational, religious, or social programme;**
- The person must have **obtained FCRA registration**/prior permission from the Central Government and
- Person includes
 - an **individual**;
 - a Hindu Undivided Family;
 - an **association**;
 - a **company** registered under Section 8 of the Companies Act, 2013;
- The foreign contribution received has to be **utilised only for the purpose** for which it has been received, and **not more than 20%** of the foreign contribution received in a financial year **can be utilised to defray administrative expenses**.
- The FCRA requires every person or NGO seeking to receive foreign donations to **open a bank account for the receipt of foreign funds in the State Bank of India, Delhi.**

WHAT IS VOYAGER 2 SPACECRAFT?

Nearly four decades after NASA's Voyager 2 spacecraft made its historic flyby of Uranus, scientists have uncovered new revelations about the ice giant's peculiar magnetic field.



- It is an **unmanned space probe launched by NASA** on August 20, 1977, just a few weeks before its sister craft, Voyager 1.
- **Primary mission:**Its mission was to **study the outer planets of our solar system,** including Jupiter, Saturn, Uranus, and Neptune and their moons, and then continue on an interstellar mission.
- It is the only spacecraft to have ever visited Uranus and Neptune.

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- It carries a Golden Record, a phonograph record containing sounds and images from Earth, intended to be a message to any potential extraterrestrial civilizations it might encounter in the future.
- Firsts:
 - It is the **only spacecraft to study all four of the solar system's giant planets** at close range.
 - It discovered a **14th moon of Jupiter**.
 - It was the **first human-made object to fly past Uranus**.
 - At Uranus, Voyager 2 discovered 10 new moons and two new rings.
 - It was the first human-made object to fly by Neptune.
 - At Neptune, Voyager 2 discovered five moons, four rings, and a "Great Dark Spot."
- After completing its primary mission, Voyager 2 continued on its journey into interstellar space, where it is still sending back data on the interstellar medium and the heliosphere.
- It is the **second spacecraft to enter interstellar space**. On Dec. 10, 2018, the spacecraft joined its twin—Voyager 1—as the only human-made objects to enter the space between the stars.
- It is currently the second most distant human-made object from Earth, after Voyager 1.

INTER-STATE COUNCIL



• It is established **under Article 263** of the **Constitution of India** to facilitate coordination and cooperation between the central government and the

state governments.

• The formation of a permanent Inter-State council was supported by the Sarkaria Commission.

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- The Inter-State council can be set up by the President If at any time it appears to the President that the establishment of such a council would be in the public interest. In 1990, the first such body was established by the presidential order.
- The Council consists of;
 - Chairman: Prime Minister
 - Members: Chief Ministers of all States
 - Chief Ministers of Union Territories having a Legislative Assembly and Administrators of UTs not having a Legislative Assembly Members
 - Six Ministers of Cabinet rank in the Union Council of Ministers to be nominated by the Prime Minister Members
- The Council is **charged with the duty of:**
 - Inquiring into and advising upon disputes which may have arisen between States.
 - **Investigating and discussing** subjects in which some or all of the States, or the Union and one or more of the States, have a common interest.
 - Making **recommendations upon** any such subject and particularly recommendations for the better coordination of policy and action.

NISAR SATELLITE



- It is a Low Earth Orbit (LEO) observatory jointly developed by NASA and ISRO.
- It will be launched by using ISRO's Geosynchronous Satellite Launch Vehicle Mark-II rocket.
- It consists of both L-band and S-band Synthetic Aperture Radar (SAR) instruments, which makes it a dual-frequency imaging radar satellite.
- NISAR will be the first satellite mission to use **two different radar frequencies** (L-band and S-band) to measure changes in our planet's surface.

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- It is capable of **penetrating clouds** and can collect data day and night regardless of the weather conditions.
- NASA has provided the L-band radar, GPS, a high-capacity solid-state recorder to store data, and a payload data subsystem. ISRO has provided the S-band radar, the GSLV launch system, and spacecraft.
- It also consists of a **large 39-foot stationary antenna** reflector made of a gold-plated wire mesh which will be used to focus "the radar signals emitted and received by the upward-facing feed on the instrument structure.
- Objectives:
 - It will **measure Earth's changing ecosystems**, dynamic surfaces, and ice masses, providing information about biomass, natural hazards, sea level rise, and groundwater.
 - NISAR will observe Earth's land and ice-covered surfaces globally with 12-day regularity on ascending and descending passes.
 - The satellite will observe movements from earthquakes, ice sheet movements, landslides and volcanic activity, track changes in forests, wetlands and farmland and even check infrastructure stability.
- The NISAR mission will also benefit researchers focused on volcanic activity by helping track surface **bulging or sinking caused by magma movement**. This data will contribute to understanding volcanic behaviours and determining if such deformations hint at imminent eruptions.

LONG RANGE LAND ATTACK CRUISE MISSILE



• It is designed to be **launched from both mobile ground-based systems** and **frontline ships**, using a universal vertical launch module, further enhancing its operational flexibility.

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- It is also able to execute complex manoeuvres while flying at different speeds and altitudes, showcasing the missile's versatility and precision.
- The LRLACM is equipped with **state-of-the-art avionics** and software that enhances its performance and reliability.
- These missiles are typically subsonic and can follow terrain-hugging flight paths, making them harder to detect and intercept, thus allowing for a strategic advantage in penetrating enemy defenses.
- Developed by: It is developed by DRDO's Aeronautical Development Establishment in Bengaluru, the LRLACM is the result of collaboration between various DRDO laboratories and Indian industries.
- Bharat Dynamics Limited (BDL) in Hyderabad and Bharat Electronics Limited (BEL) in Bengaluru served as the Development-Cum-Production Partners.
- The Defence Acquisition Council (DAC) had previously approved LRLACM as a Mission Mode Project, sanctioned under the Acceptance of Necessity (AoN) procedure.
- **Significance:** The missile's successful test is seen as a key milestone in advancing India's defence capabilities, particularly in the area of long-range precision strikes.

BIO-DERIVED FOAM



Researchers from the Indian Institute of Science (IISc) have developed a biodegradable foam that could transform the packaging industry while addressing critical environmental concerns.

- Bio-derived foam offers a sustainable alternative to plastic materials used in traditional Fast-Moving Consumer Goods (FMCG) packaging.
- The foam is made from **bio-based epoxy resins**, non-edible oils approved by the US Food and Drug Administration (FDA) and **hardeners derived from tea leaves.**
- It offers industries an **environmentally responsible alternative** to conventional expanded polystyrene (EPS) and polyurethane foam.

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- The new foam's unique chemical structure features dynamic covalent bonds that can break and reform under external stimuli. This allows the foams to be mechanically reprocessed or dissolved in eco-friendly solvents without losing strength.
- Unlike conventional packaging materials that persist in landfills for centuries, these biofoams can **disintegrate within three hours** when exposed to eco-friendly solvents at 80°C.
- It disintegrates safely in landfills **without contaminating groundwater**, offering a sustainable alternative to traditional plastic foams.
- **Significance:** The Indian foam market is currently valued at \$7.9 billion and is expected to reach \$11.1 billion by 2032, according to an analysis report by Research and Markets.
- With less than 1% of the 2.3 million tonnes of plastic foam produced annually being recycled, this innovation **addresses a pressing environmental challenge.**

GLOBAL CARBON DIOXIDE EMISSIONS SET TO RISE 0.8% OVER 2023

- Global carbon dioxide (CO2) emissions from fossil fuel use are projected to rise by 0.8% in 2024, reaching a record high of 37.4 billion tonnes, according to the Global Carbon Project's (GCP) latest report presented at COP29 in Baku, Azerbaijan.
 - GCP is a research initiative focused on quantifying global greenhouse gas emissions and their causes.
 - It does so primarily by studying the carbon cycle and its interactions with human activities, including creating global budgets for key greenhouse gases like carbon dioxide, methane, and nitrous oxide.
 - It aims to provide a comprehensive picture of the Earth's carbon balance and inform climate change mitigation strategies
- The report warns that at the current rate, there is a 50% chance global warming will exceed the critical 1.5°C threshold consistently within six years, emphasizing the urgency for decisive global action.

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India's Contribution to Global Emissions:

- **Rising Emissions**: India's CO2 emissions are expected to grow by 4.6% in 2024, the highest among major economies. This includes increases from coal (4.5%), oil (3.6%), natural gas (11.8%), and cement production (4%).
- Global Standing: India contributes 8% of global fossil CO2 emissions, ranking third after China (31%) and the U.S. (13%). The European Union (EU-27) contributes 7%.
- **Per Capita Emissions**: India's per capita CO2 emissions remain significantly lower at 0.6 tonnes compared to the global average of 1.3 tonnes, the U.S. at 3.9 tonnes, China at 2.3 tonnes, and the EU-27 at 1.5 tonnes.

Challenges in Meeting Climate Goals:

- The Paris Agreement aims to limit global warming to below 2°C, striving for 1.5°C.
- However, the report highlights that global efforts are insufficient, and voluntary Nationally Determined Contributions (NDCs) are unlikely to meet the 1.5°C pathway.
- Structural barriers, such as increasing infrastructure demands in rapidly developing economies like India, outpace the growth of renewable energy sources, exacerbating fossil fuel dependence.

Call to Action:

- The report emphasized the urgency for "**rapid and deep cuts to fossil fuel emissions**" to meet the Paris Agreement goals.
- World leaders at COP29 are urged to implement transformative policies to accelerate the transition to renewable energy, reduce fossil fuel consumption, and mitigate the impacts of climate change.

Conclusion:

- The Global Carbon Budget's findings highlight the critical need for immediate and sustained global action to curb carbon emissions.
- While India's economic growth and energy needs drive its increasing emissions, the focus must shift toward balancing development with sustainable practices.

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RULES UNDER NEW WATER ACT NOTIFIED

- Background Water Act 1974
 - The Water (Prevention and Control of Pollution) Act was enacted in 1974 to provide for the prevention and control of water pollution.
 - The Act prescribes various penal provisions for non-compliance or contravention of the provisions punishable with imprisonment.

Key highlights of New Rules under the Water Act 2024

- Introduction of New Penalty Rules
 - The Union Environment Ministry has notified the Water (Prevention and Control of Pollution) (Manner of Holding Inquiry and Imposition of Penalty) Rules, 2024, which immediately take effect.
 - These new rules establish procedures for inquiries and penalties in cases of violations under the Water Act.
- Shift from Criminal Penalties to Civil Penalties
 - Following recent amendments to the Water Act, violations have been decriminalized, with penalties replacing criminal charges.
 - The Ministry previously exempted non-polluting 'white' category industries (non-polluting industries) from needing prior permissions to operate under the Water Act.
- Empowerment of Pollution Control Authorities
 - Authorized officers from the CPCB, SPCB, Pollution Control Committees, and Integrated Regional Offices can now file complaints to adjudicating officers about violations.
 - They can do so under specific sections of the Act (Sections 41, 41A, 42, 43, 44, 45A, and 48), primarily addressing industrial effluent and pollutant discharge norms.