



1. Chandrayaan - 3

Topic: Science and Technology



In News: The Indian Space Research Organisation (ISRO) has finalised the coordinates of three possible landing sites for its third lunar mission – Chandrayaan-3.

More on the Topic

- All the probable landing sites are on the moon's south polar region on the side facing earth.
- The prime landing site for Chandrayaan-3 lies **between Manzius U and Boguslawsky M craters on the moon.**
- The criteria for selecting the landing sites for Chandrayaan-3 – a follow-on mission to Chandrayaan-2 which is meant to demonstrate end-to-end capability in safe landing and roving on the lunar surface – included local and global slope, illumination from the sun, radio communication with earth, and crater and boulder sizes.
- The moon's southern polar region is of particular interest to scientists because there's a possibility of finding water ice.

About Chandrayaan -3:

- Chandrayaan-3, expected to be launched at the end of 2023, **will have a lander and a rover.**
- Chandrayaan-3 consists of an indigenous lander module, a propulsion module, and a rover.

- The lander will have **the capability to soft land at a specified lunar site and deploy the rover**, which will carry out in-situ chemical analysis of the lunar surface during the course of its mobility.
- Chandrayaan-3 will be launched by Launch **Vehicle Mark-3 (LVM3) rocket** from Satish Dhawan Space Centre, Sriharikota. GSLV is a 3-stage rocket, powered by a cryogenic engine.
- The aim of the mission is to demonstrate **safe and soft landing on the lunar surface**, and have the rover moving around on the lunar surface to **conduct in-situ scientific experiments**.
- Its objectives include **developing and demonstrating new technologies required for interplanetary missions**.
- The lander and the rover will have **scientific payloads to carry out experiments** on the lunar surface.

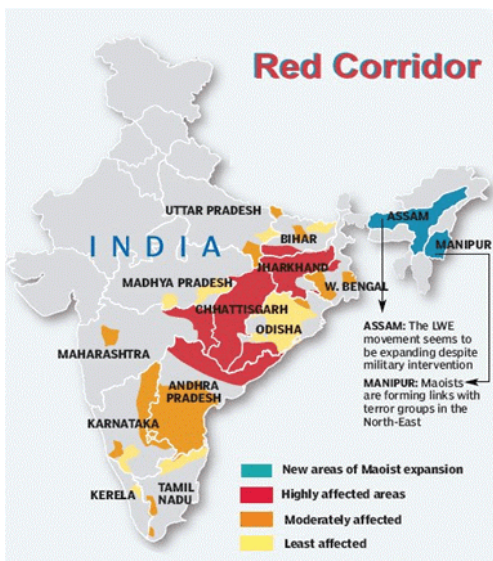
The Chandrayaan Series

- The Chandrayaan programme, also known as the Indian lunar exploration programme, is **an ongoing series of outer space mission by Isro**. The first moon rocket, Chandrayaan-1, was launched in 2008, and was successfully inserted into the lunar orbit.
- Chandrayaan-2 was successfully launched and inserted into lunar orbit in 2019, but its lander crash-landed on the moon’s surface when it deviated from its trajectory while attempting to land on September 6, 2019, due to a software glitch.

Source: Indian Express

2. Left Wing Extremism

Topic: Internal Security





In News: The Home Minister has chaired the meeting of the Parliamentary Consultative Committee on LWE.

More on the Topic:

- The committee has informed that For the first time in four decades, the number of deaths of civilians and security forces was under 100 last year.
- **The number of districts affected dropped from 90 to 45.**

The measures taken by the Ministry of Home Affairs:

- The armed forces had established 175 new camps to plug the security vacuum in the LWE-infested zones.
- The Border Security Force's air wing have been strengthened with the induction of new pilots and engineers in the past one year to aid the anti-LWE operations.
- The MHA has also taken initiatives to eliminate the funding to banned outfits.
- Funds were provided to the State police forces for modernisation and assistance related to construction of **fortified police stations**.
- For Better mobile connectivity **around 5000 mobile towers had been installed.**
- Construction of 17,462 km of roadways had been sanctioned to improve road connectivity, of which work on about 11,811 km had been completed.
- So far, 245 Eklavya schools had been sanctioned in 90 LWE-affected districts and 121 of them were now functional.
- The government also facilitated the opening of 1200 bank branches and 1,350 ATMs in the worst hit districts, besides 4,903 post offices.
- The skill development scheme's scope was increased from 34 to 47 districts.

About Left Wing Extremism:

- The left-wing extremism (LWE) or Naxal insurgency in India originated in a 1967 uprising in Naxalbari, West Bengal by the Communist Party of India (Marxist).
- They are the group of people who believe in the political theory derived from the teachings of the Chinese political leader Mao Zedong.
- **The Naxals strongly believe that the solution to social and economic discrimination is to overthrow the existing political system.**
- LWE organizations are the groups that **try to bring change through violent revolution.** They are against democratic institutions and use violence to subvert the democratic processes at ground level.
- The movement has spread across the Eastern India in less developed areas of states such as Chhattisgarh, Odisha and Andhra Pradesh.

Source: PIB



3. India and Qatar Diplomatic Relations

Topic: International Relations



In News: Year 2023 marks 50 years of establishment of full diplomatic relations between India and Qatar.

More on the Topic:

- India-Qatar cooperation in diverse sectors has been steadily growing in an excellent framework led by historical close ties, regular and substantive engagement.
- **Qatar's key exports to India include** LNG, LPG, chemicals and petrochemicals, fertilisers, plastics, and aluminium articles
- **India's key exports to Qatar include** cereals, copper articles, iron and steel articles, vegetables, fruits, spices, and processed food products, electrical and other machinery, plastic products, construction materials, textiles & garments, chemicals, precious stones and rubber.
- In 2021, India was among the top four largest export destinations for Qatar and is also among the top three sources of Qatar's imports.
- **India-Qatar Start-up bridge** is a joint initiative to link the start-up ecosystems of two countries as well as helping their economies mutually.
- **Qatar Fund for Development (QFFD)** sent **Covid medical relief material** to India for combating second wave of Covid-19.

Defence co-operation:

- The India-Qatar Defence Cooperation Agreement, signed in 2008 and officially described as a "pillar" of Indian-Qatar cooperation, was extended for another five years in 2018.
- The pact included training of the QENF by India, as well as mutual visits.
- Two editions of a joint naval exercise called **Zair Al Bahr** have been held.

Cultural Relations:



- **Cultural** ties between India and Qatar are deep-rooted and actively nurtured by both sides.
- The year 2019 was celebrated as India-Qatar Year of Culture.
- **Indian Community:** There are over 800000 Indian nationals residing in Qatar. They comprise the largest expatriate community in Qatar.

Source: Hindu

4. International Energy Forum (IEF)

Topic: International Relations



In News: India has hosted 9th Asian Ministerial Energy Roundtable in association with the International Energy Forum (IEF).

More on the Topic:

- Theme for this roundtable was “Mapping new pathways for energy security, inclusive growth and energy transitions.”
- The roundtable took place in Bengaluru, alongside India Energy Week.

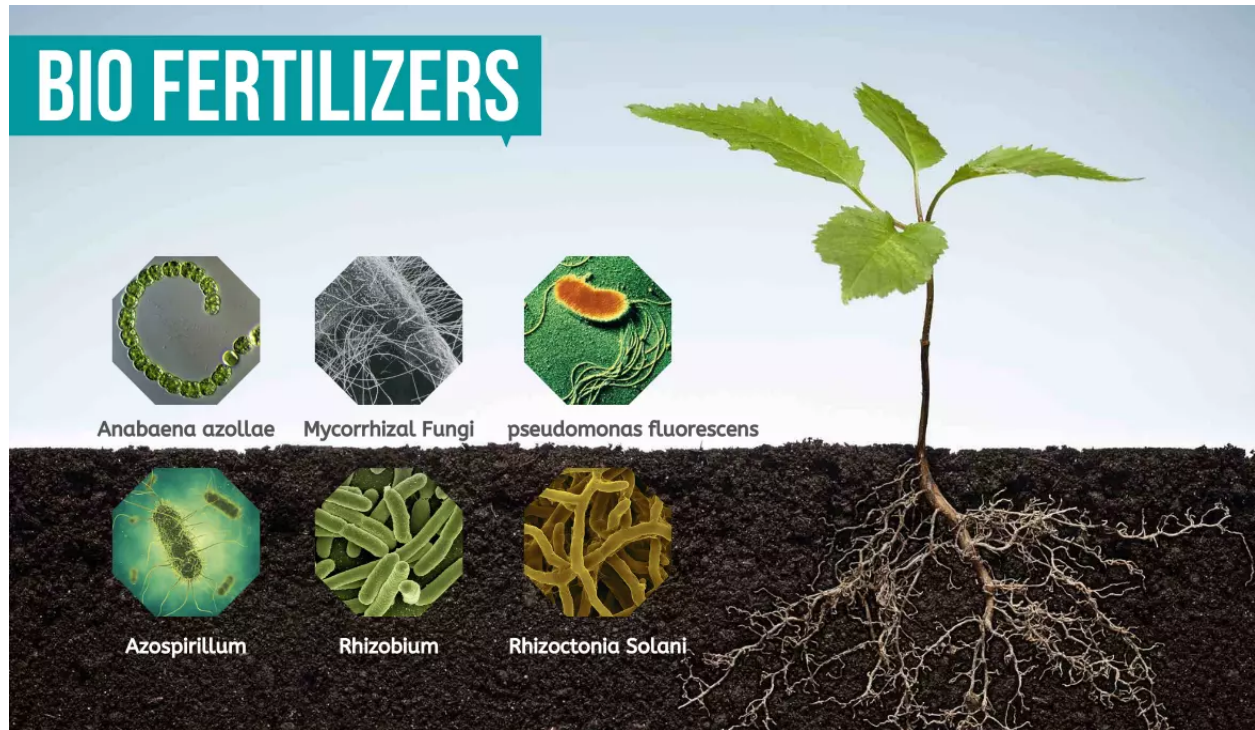
Member States and Permanent Bodies:

- The International Energy Forum is **an inter-governmental, non-profit international organisation** which aims to foster greater mutual understanding and awareness of common energy interests among its members.
- IEF is **world's largest international organization of energy ministers from 72 countries.** (including India) and includes both producing and consuming nations.
- Member countries are signatories to IEF Charter, which outlines framework of global energy dialogue through this inter-governmental organization.
- It is Head quartered at Riyadh, Saudi Arabia.

Source: Indian Express

5. Bio Fertiliser

Topic: Environment and Ecology



In News: The Centre informed the parliament that no proposal is there to make bio-fertilizers compulsory.

More on the Topic:

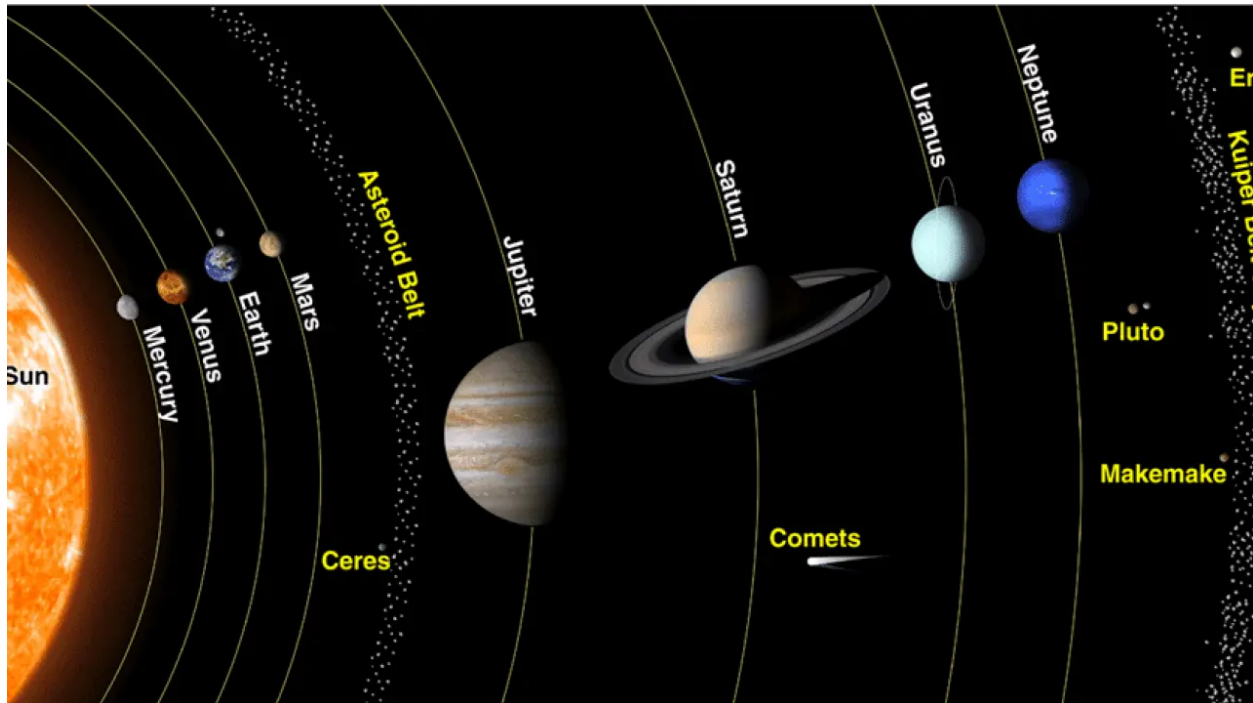
- The use of bio-fertilizer is recommended under **Integrated Nutrient Management (INM) strategies and organic farming for use in all crops.**
- Bio-fertilizers are **live microbial products, which don't contain any nutrients.** The micro-organisms present in the bio-fertilizer ensure availability of nutrients from the elements present within soil and air to available from which plants can uptake.
- **Indian Council of Agricultural Research (ICAR) has developed improved and efficient strains of bio-fertilizers specific to different crops and soil types.**
- Bio-fertilizers **can improve crop yields by 10-25% and supplement costly chemical fertilizers (N, P) by nearly 20-25%** in most of the cases when used along with chemical fertilizers without any reduction in production.
- There are **11 bio-fertilizers notified under Fertilizer (Control) Order, 1985 viz.**
- Rhizobium, Azotobacter, Azospirillum, Phosphate Solubilising Bacteria, Mycorrhizal Bio-fertilisers, Potassium Mobilizing Bio-fertilizers (KMB), Zinc Solubilizing Biofertilizers (ZSB),

Acetobactor, Carrier Based Consortia, Liquid Consortia, and Phosphate Solubilising Fungus.

Source: Business Standard

6. Jupiter beats Saturn to become the planet with most moons

Topic: Science and Technology



In News: Astronomers have discovered 12 new moons around Jupiter, putting the total count at a record-breaking 92.

More on the Topic:

- The Jupiter moons were added recently to a list kept by the International Astronomical Union's Minor Planet Centre.
- They were discovered using telescopes in Hawaii and Chile in 2021 and 2022, and their orbits were confirmed with follow-up observations.
- Jupiter's four largest moons are called Galilean satellites: **Io, Europa, Ganymede, and Callisto.**

Upcoming Jupiter Related Missions:

- In April, the European Space Agency is sending a **spacecraft to Jupiter** to study the planet and some of its biggest, icy moons.

- And 2024, NASA will launch the **Europa Clipper to explore Jupiter's moon** of the same name, which could harbor an ocean beneath its frozen crust.

Other Moons of Solar System:

- Uranus has 27 confirmed moons, Neptune 14, Mars two and Earth one. Venus and Mercury come up empty.

Source: Business Standard

7. Bharatpur bird sanctuary

Topic: Environment and Ecology



In News: The Rajasthan state Forest Department has proposed to construct a zoo inside Keoladeo National Park, a World Heritage Site popularly known as Bharatpur bird sanctuary.

More on the Topic:

- **In 1982, Keoladeo was declared a national park** and then later listed as a World Heritage Site by UNESCO in 1985.
- The park is **home to over 370 species of birds and animals** such as the basking python, painted storks, deer, nilgai and more.
- It was also known as the breeding ground for the rare and elusive to spot Siberian crane.
- It is a man-made and man-managed wetland.

Source: Business Standard
