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GS 2 : Polity, Governance, International Relations

1. Odisha to map stretches vulnerable to tidal surges

Context:

- The Odisha government has directed engineers of its Water Resources Department to prepare an **action plan against storm surges in the coastal areas.**
- The State plans to **raise saline and flood embankments along the coast** to prevent tidal surges from inundating human habitations.

Background:

Vulnerability of Odisha:

- **Odisha is the sixth most cyclone-prone area in the world**. In the last ten years, Odisha has faced seven very severe to extremely severe cyclones.
- With around 480 km of coastline, Odisha remains vulnerable to cyclonic storms along with **tidal surges and large-scale saline inundation.**
    - The coastal districts of Odisha have witnessed tidal surges of 3.5 metres to 4.5 metres during cyclones.
        - A storm surge or tidal surge is a coastal flood phenomenon of rising water commonly **associated with low-pressure weather systems,** such as cyclones. It is measured as the rise in water level above the normal tidal level, and does not include waves.

Significance:

- Given the **trend of increasing frequency and intensity of the cyclones**, raising and strengthening embankments has become a vital and necessary intervention.
- The embankments would **save people from tidal surges and inundation in future.**

Recommendations:

- While the strengthening of flood embankments should be taken up wherever viable, there is also the **urgent need to permanently evacuate people from at-risk areas**.

2. Who is a Whip?

The party in the opposition has appointed two members as the party's whips in the Upper House.

Who is a Whip?

- A whip is an official of a political party whose task is to ensure party discipline in a legislature.
- This means ensuring that members of the party vote according to the party platform, rather than according to their own individual ideology or the will of their donors or constituents.
- Whips are the party's "enforcers".
- They try to ensure that their fellow political party legislators attend voting sessions and vote according to their party's official policy.
- Members who vote against party policy may "lose the whip", effectively expelling them from the party.

Whips in India

- In India, the concept of the whip was inherited from colonial British rule.
- Every major political party appoints a whip who is responsible for the party's discipline and behaviors on the floor of the house.
- Usually, they direct the party members to stick to the party's stand on certain issues and directs them to vote as per the direction of senior party members.

What happens if a whip is disobeyed?

- A legislator may face disqualification proceedings if she/he disobeys the whip of the party unless the number of lawmakers defying the whip is 2/3rds of the party's strength in the house.
- Disqualification is decided by the Speaker/Chairman of the house.

Limitations of whip

- There are some cases such as Presidential elections where whips cannot direct a Member of Parliament (MP) or Member of Legislative Assembly (MLA) to vote in a particular fashion.

Types of whips

There are three types of whips or instructions issued by the party

- **One-line whip:** One-line whip is issued to inform members of a party about a vote. It allows a member to abstain in case they decide not to follow the party line.
- **Two-line whip:** Two-line whip is issued to direct the members to be present in the House at the time of voting.
- **Three-line whip:** Three-line whip is issued to members directing them to vote as per the party line.

3. Squaring up to India's education emergency

With the pandemic having resulted in the school closures in India, impacting formal education, the article talks about the urgent need for concrete action on the education, health and livelihood fronts.

Issue:

- Federal countries such as the United States and Brazil implemented a variety of school closures and remote/in-person education policies in different jurisdictions.
- In contrast, most generalised and continuous school and university closures were imposed in India. All States, irrespective of the pattern of evolution of the novel coronavirus disease, followed a uniform policy, with fewer variations.
- This has given rise to the largest education emergency in the world.
- There is growing evidence of the harm caused to children and young adolescents in terms of learning losses as well as socio-emotional stress caused by prolonged school closures and of the ineffectiveness and inequalities of remote learning, even in technologically sophisticated environments.

The Oxford Covid-19 Government Response Tracker (OxCGRT):

- It collects systematic information on policy measures that governments have taken to tackle COVID-19.
- The different policy responses are tracked since 1 January 2020, cover more than 180 countries and are coded into 23 indicators, such as school closures, travel restrictions, vaccination policy.
- These policies are recorded on a scale to reflect the extent of government action, and scores are aggregated into a suite of policy indices.

1. **Policy and indicators:**

- The **Global Stringency Index** has tracked the closure of educational institutions across all countries since the beginning of the pandemic.

- o It is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100.
  - o Indicators are coded according to the level of strictness of the policy.
  - o It was created by the Oxford COVID-19 Government Response Tracker and is one of its metrics.
- A significant majority of the days between March 5, 2020, and July 20, 2021, were characterised as being at the most severe policy response requiring the closure of all types of educational institutions, according to the school closure indicator.
  - o As a result, about 265 million schoolchildren have been taught exclusively through remote learning.
  - o This is the largest number in any country for the longest period of time.
- This approach contrasted with the response in many other countries.
  - o Within a few months of the first lockdown of schools, Europe began resuming in-person schooling for certain groups of children or certain localities.

2. **Schooling strategies:**

- By March 2021, 51 countries had resumed in-person education.
- In 90 other countries, including many in Africa, multiple modalities, rotation of children for in-person classes and part remote/part in-person options were being offered.
- In the hybrid schooling models (combination of in-person and remote teaching), countries prioritised children of younger ages, of essential workers and those with special needs, for in-person learning.
- But in India, even as relaxations were made for public gatherings at festivals and elections, prior to the second wave, strategies for schooling were not systematically applied.
- When the school closure policy was relaxed in a few Indian States in 2021, only high schools were allowed to function to conduct public exams.
- The fear that the second wave generated has created apprehensions about schools becoming the epicentre of the next wave.
- Therefore, India is less prepared for school re-openings than many other countries.

The Indian experience:

Education and learning:

- During these hundreds of days of almost continuous lockout, the youngest and the poorest among Indian children, the Dalits, tribals and others, and lacking devices and electricity have struggled with online classes.
- Attendance data are neither available nor defined.
- Existing education inequalities are likely to increase.
- The national Digital Infrastructure for Knowledge Sharing (DIKSHA) portal of teacher resources claims that usage increased. However, the educational significance of these metrics is not clear.
- Studies and reports from the field by NGOs and individuals engaged with the National Coalition on the Education Emergency indicate that teachers, unprepared for remote teaching, forward social media links to their hapless students.
- Kerala provided basic access to remote learning by June 2020 to its four million students through a TV channel, which broadcast classes for all subjects in each grade.
  - The State leveraged investments made over the last two decades in information technology for schools, including capacity building of teachers and teacher developed digital content.
  - However, the universal switch to 'online' mode has proved challenging.

Other pandemic-related woes:

- Besides issues on the education and learning front, families have been ravaged by disease and job losses, teenagers are caring for the sick and younger siblings, or working for pay.
- Interruptions in child health services, early nutrition and mid-day meals have affected the growth and development of young children.
- While closed schools are seen as a commitment to children's safety, the higher risk of disease transmission by working children or the increase in malnutrition is ignored.

Way Forward:

- As schools reopen, offering a few standardised bridge courses and remedial classes may not make up for months of lost formal learning.
- India's education emergency demands action on the education, health and livelihood fronts.
- Each school should prepare a safe school opening and child support plan, and should receive technical help for this.
- Teachers must be prioritised for vaccinations.
- Local adaptations and flexibility are essential.

- An 'Education Emergency Room' should be set up in every district to coordinate, implement and monitor local plans. Coordination is necessary to:
  o Develop health and sanitation measures in schools
  o Ensure protocols are followed in public transportation
  o Encourage children who were not engaged with schools over the last year
  o Develop tools to help teachers make quick diagnoses of students' learning gaps
  o Implement school health and nutrition
  o Develop tools to accompany the educational trajectory of each student.
- Technology should be deployed safely for such purposes that identify and respond to children's needs.

GS 3 : Economy, Science and Technology,Environment

4. GSLV-F10 Failure

In news A technical anomaly prevented the ignition of the GSLV-F10 rocket's cryogenic upper stage and ISRO could not accomplish the mission to launch earth observation satellite EOS-03 into the intended orbit.

About EOS-03

- EOS-03, intended to be positioned in the geostationary transfer orbit initially, was supposed to reach the **final geostationary orbit**.
- It was expected to provide **near real-time imaging** of a large area of interest at frequent intervals, which could be used for quick monitoring of natural disasters, episodic events and any short-term events.
- The mission life of the satellite was 10 years.
- GSLV-F10 was ISRO's eighth flight with indigenous cryoengine.
- While the first stage of the GSLV is solid fuel, the second is liquid fuel and the third the cryogenic engine.

  -
    o Cryogenic rocket engine uses a cryogenic fuel and oxidizer, i.e. both its fuel and oxidizer are gases **liquefied and stored at very low temperatures.**

5. General Insurance Business (Nationalization) Amendment Bill, 2021

The General Insurance Business (Nationalization) Amendment Bill, 2021, was recently passed by both houses of parliament.

What is the amendment?

- The Bill seeks to amend the General Insurance Business (nationalization) Act, 1972.

What is the GIB Act?

- The 1972 Act set up the General Insurance Corporation of India (GIC).
- The businesses of the companies nationalized under the Act were restructured in four subsidiary companies of GIC: (i) National Insurance, (ii) New India Assurance, (iii) Oriental Insurance, and (iv) United India Insurance.
- The Act was subsequently amended in 2002 to transfer the control of these four subsidiary companies from GIC to the central government, thereby making them independent companies.
- Since 2000, GIC exclusively undertakes the reinsurance business.

Key highlights of the Amendment Bill

- **Government shareholding threshold:** The Act requires that shareholding of the central government in the specified insurers (the above five companies) must be at least 51%. The Bill removes this provision.
- **Change in definition of general insurance business:** The Act defines general insurance business as fire, marine or miscellaneous insurance business.
- **Transfer of control from the government:** The Bill provides that the Act will not apply to the specified insurers from the date on which the central government relinquishes control of the insurer.
- **Notifying terms and conditions:** The Bill provides that schemes formulated by the central government in this regard will be deemed to have been adopted by the insurer.
- **Liabilities of directors:** The Bill specifies that a director of a specified insurer, who is not a whole-time director, will be held liable only for certain acts.

Significance of the bill

- **De-regulation:** The move is part of the government's strategy to open up more sectors to private participation and improve efficiency.

- **Capital infusion:** Privatization will bring in more private capital in the general insurance business and improve its reach to make more products available to customers.
- **Insurance coverage:** This will enhance insurance penetration and social protection to better secure the interests of policyholders and contribute to faster growth of the economy

Concerns of the opposition

- The Opposition is of the view that privatization will be detrimental to the interests of the public.
- They wanted a proper discussion on the pros and cons of the Bill rather than passing it in a hurry.
- They wanted an expert committee of the Cabinet to study the impact before passing the legislation.
- They are worried about large-scale employee layoffs and short-term investors entering and exiting these entities once the Act comes into force.

6. Exercise Al–Mohed Al–Hindi

The maiden bilateral naval exercise between India and Saudi Arabia named 'AL–Mohed AL–Hindi' has got underway.

Ex Al-Mohed AI-Hindi 2021

- This is the first edition of a bilateral naval exercise between India and Saudi Arabia.
- It comprises several shore and sea-based drills between the two navies.
- It reflects the growing defense ties between the two nations in the wake of the Indian Army chiefs' first visit to the West Asian country last year.
- INS Kochi is the Indian warship participating in the exercise.
- The exercise is being held against the backdrop of growing tensions in the Persian Gulf following a drone attack on the tanker MV Mercer Street off Oman.

7.World Elephant Day

Why in News

On the occasion of **World Elephant Day** (12th August) the Union Environment Minister made public the **population estimation protocol** to be adopted in the **all-India elephant and tiger population estimation in 2022.**

- World Elephant Day was launched in 2012 to **bring attention to the urgent plight of Asian and African elephants.**

Key Points

- **Current Data on Elephants in India:**
  o According to the last count in 2017, there were **29,964 elephants in India.** Which is a slight **increase from 2012's mean of 29,576 elephants.**
- **Asian Elephants:**
  o **About:**
    - There are three subspecies of Asian elephant which are the Indian, Sumatran and Sri Lankan.
    - The **Indian subspecies has the widest range** and accounts for the majority of the remaining elephants on the continent.
    - **Global Population:** Estimated 20,000 to 40,000.
  o **Protection Status:**
    - **IUCN Red List**: Endangered.
    - **Wildlife (Protection) Act, 1972**: Schedule I.
    - **CITES**: Appendix I
- **African Elephants:**
  o **About:**
    - There are **two subspecies** of African elephants, **the Savanna (or bush) elephant and the Forest elephant.**
    - **Global Population:** Around 4,00,000.
    - Earlier in July 2020, **Botswana (Africa) witnessed the death of hundreds of elephants.**
  o **Protection Status:**
    - **IUCN Red List Status:**
      - **African Savanna Elephant:** Endangered.
      - **African Forest Elephant:** Critically Endangered
    - **CITES:** Appendix II
- **Concerns:**
  o Escalation of poaching.
  o Habitat loss.
  o **Human-elephant conflict.**
  o Mistreatment in captivity.
  o Abuse due to elephant tourism.
  o Rampant mining, Corridor destruction.
- **Steps Taken for Conservation:**
  o Plans and programmes to **arrest their poachers and killers.**
  o Declaration and **establishment of various elephant reserves** across the states. For example, Mysuru and Dandeli elephant reserves in Karnataka.

- o **Cleaning areas from lantana and eupatorium (invasive species)** as they prevent the growth of grass for elephants to feed on.
- o Barricades to **prevent man-elephant conflicts.**
- o Measures for establishment of a cell to study **forest fire** prevention.
- o **Gaj Yatra** which is a **nationwide awareness campaign** to celebrate elephants and highlight the necessity of securing elephant corridors.
- o The **Monitoring the Illegal Killing of Elephants (MIKE) programme**, launched in 2003, is an international collaboration that tracks trends in information related to the illegal killing of elephants from across Africa and Asia, to monitor effectiveness of field conservation efforts.
- o **Project Elephant:** It is a **centrally sponsored scheme** and was launched in February 1992 for the **protection of elephants**, their habitats and corridors.
  - The Ministry of Environment, Forest and Climate Change provides **financial and technical support to major elephant range** states in the country through the project.
- o Even **mahouts** (people who work with, ride and tend an elephant) and their families play an important part in the welfare of elephants.
- o Recently, the **Supreme Court (SC)** upheld the 2011 order of the Madras High Court (HC) on the Nilgiris elephant corridor, affirming the **right of passage** of the animals and the closure of resorts in the area.

THE INDIAN EXPRESS

GS 2 : Polity, Governance, International Relations

1.Oil Spills

Why in News

A new study has confirmed that **Stimulating Bacteria (Bioremediation)** with nutrients in the cold seawaters of the Canadian Arctic **can help decompose diesel and Other Petroleum Oil after Oil Spills.**

- Earlier in 2020, the National Institute of Ocean Technology (NIOT), Chnnai has developed an **Eco-Friendly Crude Oil Bioremediation** mechanism technology.

Key Points

- **Oil-Spill:**
    - An oil spill refers to **any uncontrolled release of crude oil, gasoline, fuels, or other oil by-products into the environment.**
    - Oil spills can **pollute land, air, or water,** though it is mostly used for oceanic oil spills.
- **Major Causes:**
    - Oil spills have become a major environmental problem, **chiefly as a result of intensified petroleum exploration and production** on continental shelves and the transport of large amounts of oils in vessels.
    - Oil spills that happen in **rivers, bays and the ocean most often are caused by accidents** involving tankers, barges, pipelines, refineries, drilling rigs and storage facilities, **but also occur from recreational boats and natural disasters.**
- **Environmental Impacts:**
    - **Threat to Indigenous people:**
        - Oil pollution poses health hazards for the **indigenous population who depend on seafood.**
    - **Harmful to aquatic life:**
        - Oil on ocean surfaces is harmful to many forms of aquatic life because it **prevents sufficient amounts of sunlight from penetrating the surface,** and it also reduces the level of dissolved oxygen.
    - **Hypothermia:**

- Crude oil ruins the insulating and waterproofing properties of feathers and fur of birds, and thus oil-coated birds and **marine mammals may die from hypothermia (decrease in body temperature to below-normal levels).**
  - o **Toxic:**
    - Moreover, **ingested oil can be toxic to affected animals,** and damage their habitat and reproductive rate.
  - o **Threat to Mangroves:**
    - Saltwater marshes and **Mangroves** frequently suffer from oil spills.
- **Economic Impacts:**
  - o **Tourism:**
    - If beaches and populated shorelines are fouled, **tourism and commerce may be severely affected.**
  - o **Power Plants:**
    - The power plants and other utilities that **depend on drawing or discharging sea water are severely affected** by oil spills.
  - o **Fishing:**
    - Major oil spills are frequently followed by the **immediate suspension of commercial fishing.**
- **Remedies:**
  - o **Bioremediation:**
    - Bacteria **can be used to clean up oil spills in the ocean** through bioremediation. Specific bacteria can be used to **bioremediate specific contaminants, such as hydrocarbons, which are present in oil** and gasoline.
    - Using bacteria such as **Paraperlucidibaca, Cycloclasticus, Oleispira, Thalassolituus Zhongshania** and some others can help remove several classes of contaminants.
  - o **Containment Booms:**
    - Floating barriers, called booms, are used to restrict the spread of oil and to allow for its recovery, removal, or dispersal.
  - o **Skimmers:**
    - They are devices used for physically separating spilled oil from the water's surface.
  - o **Sorbents:**
    - Various sorbents (e.g., straw, volcanic ash, and shavings of polyester-derived plastic) that absorb the oil from the water are used.
  - o **Dispersing agents:**
    - These are **chemicals that contain surfactants, or compounds that act to break liquid substances** such as oil into small droplets. They accelerate its natural dispersion into the sea.

- **Related Laws in India:**
    - Presently, there is no law covering oil spill as such and its consequential environmental damage in India but India has **"the National Oil Spill Disaster Contingency Plan of 1996 (NOS-DCP)"** to handle such situations.
        - The document was issued by the Ministry of Defense in 1996; **it was last updated in March 2006.**
        - It gives the **Indian Coast Guard** the mandate to coordinate with state departments, ministries, port authorities and environmental agencies to assist in oil spill cleaning operations.
    - In 2015 India ratified the International Convention on **Civil Liability for Bunker Oil Pollution Damage, 2001** (Bunker Convention). Convention ensures adequate, prompt and effective compensation for damage caused by oil spills.
        - It was administered by the **International Maritime Organization (IMO)**.

2.Forum of the Election Management Bodies of South Asia (FEMBoSA)

Why in News

Recently, the **Election Commission of India** inaugurated the **11th Annual meeting of the Forum of the Election Management Bodies of SouthAsia (FEMBoSA)** for the year 2021.

Key Points

- **About the Meeting:**
    - **Hosted By:** Election Commission of Bhutan.
    - **Chairmanship:** The **Election Commission of India handed over the chairmanship** of FEMBoSA role **to the Election Commission of Bhutan for 2021-22.**
    - **Thimphu Resolution:** A resolution was unanimously adopted by the FEMBoSA members **to extend the tenure of chairmanship to two years** during the current pandemic situation.
        - Before this, the tenure of the chairmanship was one year.
    - **Theme of Meeting:** 'Use of Technology in Elections'.
    - **Digitization of Election:** The technology is extensively used to make elections more **participative, accessible** and **transparent.**
        - It has become more important during the **Covid 19** situation as it is helping in minimizing person-to-person contact.
- **About FEMBoSA:**
    - **Establishment:**

- The forum was established at the **3rd Conference of Heads of Election Management Bodies (EMBs) of SAARC (South Asian Association for Regional Cooperation) Countries in 2012.**
  - **SAARC comprises eight member States:** Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.
  - **Aim:**
    - To increase mutual cooperation in respect to the common interests of the SAARC's EMBs.
  - **Significance:**
    - FEMBoSA represents **a very large part of the democratic world** and it is an active regional cooperation association of EMBs.
    - Its logo with golden pearls **stands for the eternal values of transparency, impartiality, democracy and cooperation.**

Election Commission of India (ECI)

- The **ECI** is an **autonomous constitutional authority responsible for administering Union and State election processes in India.**
- The body administers elections to the **Lok Sabha, Rajya Sabha, and State Legislative Assemblies in India,** and the **offices of the President** and **Vice President** in the country.
- The Election Commission was established in accordance with the **Constitution on 25th January 1950.**
- **Constitutional Provisions:**
  - Part XV of the Indian constitution deals with elections, and establishes a commission for these matters.
  - **Article 324 to 329 of the constitution** deals with powers, function, tenure, eligibility, etc of the commission and the members.
    - Article 324 provides for **appointment of a Election commission** to superintend, direct and control the elections.
- **Structure :**
  - Originally the commission had only one election commissioner but after the **Election Commissioner Amendment Act 1989,** it has been made a multi-member body.
  - The commission presently consists of one **Chief Election Commissioner (CEC)** and two **Election Commissioners (ECs).**
  - The secretariat of the **commission is located in New Delhi.**

3.Olympian Bat

Why in News

Recently, **a bat** amazed the scientists by **flying a distance of more than 2,000 km** from **London to the Pskov region in northwestern Russia.** The bat is dubbed as the **"Olympian bat"** and has generated keen interest in **climate scientists.**

Key Points

- The bat belongs to the **Nathusius' pipistrelle species of bats.**
- The journey is significant because it is the **longest one undertaken by a bat from Britain across Europe.**
- Bats belonging to the Nathusius' pipistrelle species **typically weigh less than 10 grams.**
    - They are known to **migrate from summer breeding grounds in northeastern Europe to warmer areas of the continent** where they **hibernate** in trees in buildings.
- The 'Olympian' bat's record is topped by **another bat from the same species** that **flew from Latvia to Spain in 2019** covering a distance of 2,224 km.
- For climate scientists, the journey is a window into **studying bat migration and its connection with climate change.**
- **Increased variation in climatic extremes** raises the **possibility of bats emerging from hibernation early** or at a greater frequency.
    - That would not only put hibernating bats at risk from depleted energy stores, but could also affect the birth and survival of pups.
- Thus, Nathusius' pipstrelle's range expansion is **linked to climate change** and **future changes in climate** will further impact this species.
- The **Bat Conservation Trust** launched a project called the **National Nathusius' Pipistrelle Project** in 2014.
    - The project aims to **improve understanding of the ecology, current status and conservation threats** for Nathusius' pipistrelles in Great Britain.
    - One of the goals of this project is to **determine the migratory origins of this species of bats** since they might help in understanding its links to climate change.
    - There is already some evidence of **birds migrating early because of a warming planet.**
- **IUCN status** of Nathusius' pipistrelle species of bats: **Least concern.**

Hibernation

- It is an **inactive state resembling deep sleep** in which certain animals **living in cold climates pass the winter.**

- In hibernation, the **body temperature is lowered and breathing and heart rates slow down.**
- It protects the animal from cold and **reduces the need for food** during the season when food is scarce.
- Normally, **Polar bears, Rodents, and Bats** are some animals that show hibernation.
- Recently, a new research in **zebrafish** has demonstrated how **induced hibernation (torpor)** may protect humans from the elements of space, especially radiation, during space flight.

4.Open Acreage Licensing Programme

Why in News

In an attempt to **boost domestic hydrocarbon production,** the petroleum and natural ministry launched the sixth bid round under the liberal **Open Acreage Licensing Programme (OALP).**

- Earlier, the Cabinet Committee on Economic Affairs (CCEA) approved the **Policy framework on reforms** in the exploration and licensing sector for enhancing domestic exploration and production of oil and gas.

Key Points

- **About:**
  - The **Hydrocarbon Exploration and Licensing Policy (HELP) replacing** the erstwhile **New Exploration Licensing Policy (NELP)** was approved in March 2016 and the **Open Acreage Licensing Policy (OALP)** along with the **National Data Repository (NDR)** were launched in June 2017 as the key drivers to accelerate the **Exploration and Production (E&P) activities** in India.
  - Under OALP, **companies are allowed** to carve out areas they want to explore oil and gas in.
  - Companies can put in an **expression of interest (EOI)** for any area throughout the year but such **interests are accumulated thrice in a year.** The areas sought are then offered for bidding.
  - This policy is **different from the past** where the government identified areas and offered them for bidding.
- **Need of the Policy:**
  - India is **one of the fastest growing major economies** in the world and the **third largest consumer of petroleum products** after the US and China.

- o India is heavily **dependent on import of crude oil** to meet its energy needs.
- o **Net imports of crude** oil have increased from 111.50 metric tons during 2006-07 to 202.85 metric tons during 2015-16.
  - In this backdrop, **India has set a target** to reduce dependence on crude oil imports by **10% by 2022.**

- ▪ **Benefits:**
  - o **Increase in Exploration:**
    - The successful roll-out of the **HELP regime,** followed by **OALP Bid Rounds,** has led to an **increase in exploration acreages in India.**
  - o **Removing Red-Tapism:**
    - The OALP has helped in removing red-tapism and brought in a **quantum jump in the Exploration & Production sector.**

- ▪ **Concerns:**
  - o **Fails to Attract Investors:**
    - The new policy has failed to **attract interest from major players in the sector.**
  - o **Onerous obligations:**
    - The OALP provides for discretionary powers to the **Directorate General of Hydrocarbon (DGH)** to accept the area for which EOI has been submitted or alter/modify the area after due evaluation.
      - It oversees upstream oil and gas production.
    - However, the **basis for exercise** of such discretion is **not provided under the OALP.**

About HELP

- ▪ The Hydrocarbon Exploration & Licensing Policy (HELP), which adopts the **Revenue Sharing Contract model,** is a giant step towards improving the **'Ease of Doing Business'** in the Indian **Exploration and Production (E&P) sector.**
- ▪ It comes with attractive and liberal terms like reduced royalty rates, no Oil Cess, marketing and pricing freedom, round the year bidding, freedom to investors for carving out blocks of their interest, a single license to cover both conventional and unconventional hydrocarbon resources, exploration permission during the entire contract period, and an easy, transparent and swift bidding and awarding process.
- ▪ **Bid Round-IV onwards,** bidding rounds are being carried out under the further **liberalized policy terms,** which focused on production maximization with higher weightage to Committed Work Programme in Category I basin and no revenue share bids required for less explored Category II & III basins.

- Category-I basins have established reserves and fields that are already producing while Category-II basins are ones that have contingent resources pending commercial production. Category-III basins are ones that have prospective resources awaiting discovery.

Way Forward

- Government should consider **rationalising Taxation and Cess.**
- Also the **government should consult different stakeholders** to understand their concerns.
- **Private and Foreign Players** should be **incentivised** to bring in better technology.

5.UNSC Meet on Maritime Security

Why in News

Recently, the **United Nations Security Council (UNSC)** has adopted the **first-ever presidential statement** on maritime security.

- **India, as the UNSC president for August 2021,** noted the threats to maritime safety and security and called upon the members to consider implementing the **2000 UN Convention against Transnational Organized Crime.**
- All the **permanent members of UNSC (US, China, Russia, UK and France)** attended the Meet.

Key Points

- **Statement on Maritime Security:**
  - Emphasized on safeguarding the legitimate uses of the oceans and security of coastal communities, affirming that international law — reflected in the **1982 United Nations Convention on the Law of the Sea**, among other global instruments — provides the legal framework for combating these illicit activities.
  - Called on Member States to **implement the International Ship and Port Facility Security Code** and Chapter XI-2 of the **International Convention for the Safety of Life at Sea,** and to **work with the International Maritime Organization (IMO)** to promote safe and secure shipping while ensuring freedom of navigation.
  - Member States, by other terms, should also consider **ratifying, acceding to and implementing the 2000 United Nations Convention against Transnational Organized Crime** and the Protocols thereto.

Note

United Nations Convention on the Law of the Sea (UNCLOS)

- The **'Law of the Sea Treaty',** formally known as the United Nations Convention on the Laws of the Sea (UNCLOS) was adopted in 1982 to establish jurisdictional limits over the ocean areas.
- The convention defines distance of 12 nautical miles from the baseline as Territorial Sea limit and a distance of 200 nautical miles distance as Exclusive Economic Zone limit.
- India became a signatory to the UNCLOS in 1982.

International Ship and Port Facility Security (ISPS) Code

- The ISPS Code is a set of measures to enhance the security of ships and port facilities. It was developed in response to the perceived threats to ships and port facilities after the 9/11 attacks.
- **Chapter XI-2 of the International Convention for the Safety of Life at Sea** enshrines the ISPS Code.

International Maritime Organization (IMO)

- IMO is **a specialized agency of the United Nations (UN).** It is **a global standard-setting authority** with responsibility to improve the safety and security of international shipping and prevention of marine and atmospheric pollution by ships.
- India joined the IMO in 1959. The IMO currently **lists India as among the 10 states with the 'largest interest in international seaborne trade'.**

UN Convention against Transnational Organized Crime (UNTOC)

- UNTOC is **also known as the Palermo Convention** since it was adopted in Palermo in Italy in 2000, entered into force in 2003. **India joined UNTOC** in 2002.
- The idea behind having an international convention against organized crime was that if crimes could cross borders, so must law enforcement.

- **India's Stand:** India has put forth **five basic basic principles** for maritime security.
  - **Free maritime trade** sans barriers so as to establish legitimate trade.
    - In this context, **SAGAR ('Security and Growth for all in the Region') vision** can be highlighted.
  - **Settlement of maritime disputes** should be peaceful and on the basis of international law only.
    - It was with this understanding, and maturity, that **India resolved its maritime boundary with its neighbour Bangladesh.**

- o **Responsible maritime connectivity** should be encouraged.
  - Making reference to **China's Belt and Road Initiative**, India held that, while creating structures for "maritime connectivity", countries should **keep "financial sustainability" and absorption capacity of the host countries.**
- o Need to **collectively combat maritime threats** posed by non-state actors and natural calamities.
  - Highlighting **India's role in the Indian Ocean has been that of a net security provider.**
- o **Preserve the maritime environment** and maritime resources.
  - Highlighting increasing **pollution from plastic waste and oil spills.**

- ▪ **US' Stand:**
  - o **Conflict in the South China Sea** or in any ocean would have **serious global consequences for security and for commerce.**
  - o It highlighted that **China has been building military bases on artificial islands** in the region also claimed by Brunei, Malaysia, the Philippines, Taiwan and Vietnam.
  - o The US also referred to the unanimous and legally binding decision five years ago by the **arbitral tribunal constituted under the UNCLOS which China firmly rejected as unlawful.**

- ▪ **China's Stand:**
  - o China held that with the joint efforts of China and **ASEAN countries**, the situation in the South China Sea remains generally stable.
  - o Referring indirectly to the **Quad** (US, India, Japan, Australia), a few countries are pursuing exclusive regional strategies in the **Asia Pacific region.**
    - This can create and intensify maritime conflicts, undermine the sovereignty and security interests of relevant countries, and weaken regional peace and stability.
  - o Further, China criticizes the US that it is not qualified to make irresponsible remarks on the issue of the South China Sea, **because the US itself has not joined the UNCLOS.**
- ▪ **Russia's Stand:**
  - o Russia **did not mention the South China Sea or the Indo-Pacific**, and articulated a much nuanced position.
  - o It promotes **strict adherence to** key norms and principles of international law enshrined in the UN Charter, such as respect for **sovereignty, non-intervention in the internal affairs** and settling disputes through dialogue.
- ▪ **UK's Stand:**
  - o The UK has a vision for a **free, open and secure Indo-Pacific.**

- o In this context, the UK's recent **Integrated Review of Foreign, Security, Defence and Development policy** set out the importance it attaches to the Indo-Pacific.
  - ▪ **France's Stand:**
    - o It held that the **maritime domain has emerged as a theatre for a new generation of challenges** and urged greater cooperation among the members of the UNSC to deal with the issue.
    - o Such as, **combating climate change** and its consequences on security, particularly in terms of natural disasters.

6.Sanctions Imposed Against Belarus

Why in News

The **UK, the US and Canada** have issued **fresh trade, financial and aviation sanctions on Belarus,** in a bid to increase pressure on the country's leader Alexander Lukashenko.

Key Points

- ▪ **Background:**
  - o **Europe's longest-serving ruler,** President of Belarus **(Lukashenko) took office in 1994** amid the chaos caused by the **collapse of the Soviet Union in 1991.**
  - o Often described as **Europe's "last dictator",** he has tried to **preserve elements of Soviet communism.**
    - • He has been in power for 26 years, keeping much of the economy in state hands, and using censorship and police crackdowns against opponents.
  - o In **2020,** after **Lukashenko was announced as the winner in elections,** protests broke out in the capital, Minsk which were met with a violent security crackdown.
    - • There has been **widespread anger against the government** over a **stagnant economy** and doubts about the fairness of the election.
- ▪ **Sanctions' Targets:**
  - o The idea is to **focus on the regime and Lukashenko's associates** as precisely as possible and **discourage Western companies from doing business with Belarus.**
  - o The latest sanctions **restrict exports of surveillance and military technology** to Belarus.
  - o The sanctions partially **ban imports of potash fertilizer, petrol and petrol-based products** from Belarus.

- o In the cases of the **EU, U.K. and Canada,** the **embargo also restricts financial trade** such as buying state debt and insuring or reinsuring state-related entities.
- o The EU and US have **sanctioned Belarus' tobacco industry,** which contributes to the lucrative cigarette smuggling trade.
  - More than 90% of cigarettes smuggled into Lithuania came from Belarus in 2019.
- o Western countries also **blacklisted some Belarusian citizens.**
- ▪ **Impacts:**
  - o **Targeting Belarus' potash sector** was a strategic move insofar as the country is the **second largest exporter of the fertilizer** behind Canada, covering 21% of the world's potash exports in 2019.
    - But, sanctions cover **only 15% of all potash exports** to the EU.
  - o Also, **Russia represents 49.2%** of all Belarusian trade and **Belarus can export its sanctioned goods across the Russian border** for re-export from there.
  - o The impact of restrictions on dual-use goods, monitoring and interception goods and technology, and goods used in cigarette manufacturing would be negligible.
- ▪ **Opportunity for Russia:**
  - o Since, Russian President Putin has tense relations with Lukashenko, and the sanctions are an **opportunity for Russia** to **impose its own conditions** on Lukashenko's survival in control of a crumbling state, which Russia has financially supported for decades.
- ▪ **Belarus' Stand:**
  - o **Accused the U.K., US and Canada of ignoring the will of the Belarusian people** and employing the "entire arsenal of **'cold war'** methods" in pursuit of regime change.

Way Forward

- ▪ The **President of Belarus** should **ensure the formation of a legitimate government** that could address the country's vital problems.
- ▪ He has to **reach out to the Opposition** and **offer talks to find a peaceful settlement to the crisis.**

GS 3 : Economy, Science and Technology,Environment

7.Sovereign Right to Taxation

Why in News

Recently, the Government of India introduced **The Taxation Laws (Amendment) Bill, 2021** in the Lok Sabha which **seeks to withdraw tax demands made using a 2012 retrospective legislation** to tax the indirect transfer of Indian assets.

- The government has stressed the need to establish its **sovereign right to taxation.**

Key Points

- **Sovereignty:**
    - Sovereignty, in political theory, **means the ultimate overseer, or authority, in the decision-making process** of the state and in the maintenance of order.
    - Derived from the Latin superanus through the French **souveraineté,** the term was **originally understood to mean the equivalent of supreme power.**
    - **Constitutional Sovereignty** implies that the constitution is sovereign and supreme.
- **Sovereign Right to Taxation in India:**
    - In India, **the Constitution gives the government the right to levy taxes on individuals and organisations,** but makes it clear that **no one has the right to levy or charge taxes except by the authority of law.**
        - Any tax being charged has to be backed by a law passed by the legislature or Parliament **(Article 265).**
- **Taxation in India:**
    - Tax is a **pecuniary burden laid upon individuals or property owners to support the government, a payment exacted by legislative authority,** and that a tax **is not a voluntary payment or donation, but an enforced contribution,** exacted pursuant to legislative authority.
    - Taxes in India come under a **three-tier system based on the Central, State and local governments,** and the **Seventh Schedule** of the Constitution puts separate heads of taxation under the **Union and State list.**
    - There is **no separate head under the Concurrent list,** meaning Union and the States have no concurrent power of taxation.
- **Limitation to States Sovereignty:**
    - The two most used **Bilateral Investment Treaties (BIT)** provisions to challenge a state's taxation measures are **expropriation** and the **fair and equitable treatment** provision.
    - The tax **should not be discriminatory** and it should **not be confiscatory.**

Way Forward

- India should **exercise its right to regulate while being mindful of its international law obligations,** acting in good faith and in a proportionate manner.
- **Investor-State Dispute Settlement (ISDS)** tribunals **do not interfere with such regulatory measures.** In sum, the debate never was whether India has a sovereign right to tax, but **whether this sovereign right is subject to certain limitations.** The answer is **'yes'** because **under international law the sovereign right to tax is not absolute.**

8.GSLV-F10 Failure: ISRO's EOS-03 Satellite Mission

Why in News

Recently, **Indian Space Research Organisation (ISRO)** suffered the loss of an **important earth observation satellite (EOS-03)** during launch when the **GSLV rocket** carrying it malfunctioned about five minutes from the lift-off.

Earth Observation Satellites

- Earth observation satellites are the satellites **equipped with remote sensing technology.** Earth observation is the gathering of information about Earth's physical, chemical and biological systems.
- Many earth observation satellites have been employed on **sun-synchronous orbit.**
- **Other earth observation satellites** launched by ISRO include RESOURCESAT- 2, 2A, CARTOSAT-1, 2, 2A, 2B, RISAT-1 and 2, OCEANSAT-2, Megha-Tropiques, SARAL and SCATSAT-1, INSAT-3DR, 3D, etc.

Key Points

- **About the EOS-03:**
    - It was **capable of imaging the entire country four to five times every day.**
    - It was riding on a **GSLV rocket (GSLV-F10),** which has a **new payload carrier** designed to **significantly reduce aerodynamic drag** and thus carry larger payloads.
    - The rocket was supposed to **deposit the satellite in the geostationary transfer orbit,** from where the satellite's onboard propulsion system will **guide it to a geostationary orbit,** 36,000 km from earth's surface.
        - **Geostationary transfer orbit** is a circular orbit positioned approximately 35,900 km above Earth's equator and having a

period of the same duration and direction as the rotation of the Earth.
- An object in this orbit will appear **stationary relative to the rotating Earth.**

- **Significance:**
  - EOS-03, part of the **new generation of earth-observation satellites,** was meant to **provide almost real-time images** of large parts of the country.
    - The images could be used for monitoring natural disasters like **floods** and **cyclones**, water bodies, crops, vegetation and forest cover.
  - EOS-03 was being sent **ahead of EOS-02** which has been delayed by the **Covid-19 pandemic.**
    - EOS-02 was supposed to be launched **around March-April this year,** but now has been **rescheduled for September-October.**
    - EOS-02 was supposed to ride on **ISRO's new SSLV (Small Satellite Launch Vehicle) rocket.**
    - SSLVs will broaden **ISRO's current rocket range** that comprises **PSLVs and GSLVs,** and cater to the increasing demand for launching of small commercial satellites.

- **EOS-01:**
  - In November 2020, ISRO had launched EOS-01, the first in the series of new earth observation satellites that bear a new generic naming system.
    - It was launched by **Polar Satellite Launch Vehicle (PSLV)**, the third generation launch vehicle of India.
  - It is intended for applications in **agriculture, forestry and disaster management support.**

Geosynchronous Satellite Launch Vehicle (GSLV)

- GSLV is a space launch vehicle designed, developed, and operated by the ISRO to launch satellites and other space objects into **Geosynchronous Transfer Orbits.**
  - Geosynchronous satellites are launched into orbit in the same direction the Earth is spinning and can have any inclination.
- GSLV has the capability to put a **heavier payload in orbit** than the **Polar Satellite Launch Vehicle (PSLV).**
- It is a **three-stage launcher** with strap-on motors.

Failure of the GSLV-F10

- **Reasons:**

- o **Liquid fuel strap-on boosters** start the launch of the satellite by providing the extra thrust needed to lift the rocket off the ground.
- o Then, follows a **solid fuel first stage** with **another liquid fuel stage** coming next. These two stages operated as expected.
- o It was the **rocket's crucial third stage,** which uses an **indigenously-made Cryogenic Upper Stage (CUS)** which then **failed to ignite.**
    - • The cryogenic stage is "technically a very complex system compared to solid or earth-storable liquid propellant stages due to its use of propellants at extremely low temperatures and the associated thermal and structural problems".

- ▪ **Impacts on the Future Missions:**
    - o This was the **second launch ISRO** had lined up for 2021, which had **suffered multiple delays** after being originally scheduled for March 2020.
        - • Its successful mission was in February, which was **Brazil's earth observation satellite Amazonia-1** and 18 co-passenger satellites.
    - o The failure **breaks a series of 16 consecutive successful** launches by ISRO since 2017.
    - o Satellites had been planned for **2020-21,** including **OCEANSAT-3, GISAT-2, RISAT-2A,** etc. with these missions set to cost an estimated Rs 701.5 crore.
    - o Missions like **Gaganyaan and Chandrayaan-3** will be launched on GSLV Mk-III, a more advanced version of the GSLV rocket that is designed to carry much heavier payloads into space.
    - o It is a **big cause of worry for the NISAR mission**, a first-of-its-kind collaboration between NASA and ISRO for a joint earth-observation satellite.
        - • NISAR, which will use two synthetic aperture radars (SAR) to monitor the entire Earth in a 12-day cycle, is the most important mission as yet involving the GSLV Mk-II rocket.

Prelims Practice Questions

1. Agalega Islands has been recently in the news. It features India's agreement with which of the following countries in the Indian Ocean?

A Seychelles
B Sri Lanka
C Maldives
D Mauritius

Answer : D

Explanation

- In 2015, **India signed an agreement with Mauritius** for the **development of the Agalega Islands.**
  - o It provided for setting up and up-gradation of infrastructure for improving sea and air connectivity enhancing capabilities of the Mauritian Defence Forces in safeguarding their interests in the Outer Island.
  - o However, since then, there have been growing reports over the Indian naval and coastguard's interests in setting up transponder systems and surveillance infrastructure, which has led to some local protests.
- Recently, Mauritius has denied a report that it has allowed India to build a military base on the remote island of Agalega.
- **Hence, option D is correct.**

2. Which among the following is/are Earth Observation Satellites?

1. Megha-Tropiques
2. SARAL
3. OCEANSAT
4. IRNSS-1A
5. Bhaskara-I

Options:

a. 2 and 3 only
b. 1, 2 and 4 only
c. 1, 2, 3 and 5 only
d. 3 and 5 only

Answer: c

Explanation:

- IRNSS-1A is the first navigational satellite in the Indian Regional Navigation Satellite System series of satellites.
- The other four satellites mentioned are all earth observation satellites.
  - Megha-Tropiques is an Indo-French Joint Satellite Mission for studying the water cycle and energy exchanges in the tropics.
  - The Satellite with ARGOS and ALTIKA (SARAL) is a joint Indo-French satellite mission for oceanographic studies.
  - Oceansat-1 or IRS-P4 was the first Indian satellite built primarily for ocean applications. It was a part of the Indian Remote Sensing Programme satellite series.
  - Bhaskara-I was India's first low orbit Earth Observation Satellite.

3. With reference to the term "Junk DNA", consider the following statements:

1. It refers to the regions of DNA that does not encode protein sequences.
2. The proportion of coding versus noncoding DNA varies significantly between species.

Which of the statement(s) given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : C

Junk DNA

- In genetics, the term junk DNA refers to regions of DNA that are noncoding.
- DNA contains instructions (coding) that are used to create proteins in the cell.
- However, the amount of DNA contained inside each cell is vast and not all of the genetic sequences present within a DNA molecule actually code for a protein.
- Some of this noncoding DNA is used to produce non-coding RNA components such as transfer RNA, regulatory RNA and ribosomal RNA.
- However, other DNA regions are not transcribed into proteins, nor are they used to produce RNA molecules and their function is unknown.
- The proportion of coding versus noncoding DNA varies significantly between species.
- In the human genome for example, almost all (98%) of the DNA is noncoding, while in bacteria, only 2% of the genetic material does not code for anything.

4. Consider the following statements regarding Kaziranga National Park:

1. It is the single largest undisturbed area in the Brahmaputra Valley floodplain.
2. It has the highest density of one-horned rhinos in the world.
3. It is listed as one of the UNESCO World Heritage Sites.

Which of the statements given above are correct?

A 1 and 2 only
B 1 and 3 only
C 2 and 3 only
D 1, 2 and 3

Answer : B

Explanation

- **Kaziranga National Park** is located in the State of Assam and covers 42,996 Hectare (ha).
  - It is the **single largest undisturbed** and representative **area in the Brahmaputra Valley floodplain. Hence, statement 1 is correct.**
- It was declared as a National Park in 1974.
  - It has been declared a Tiger Reserve since 2007. It has a total tiger reserve area of 1,030 sq km with a core area of 430 sq. km.
- Kaziranga National Park was declared a **UNESCO World Heritage Site** in 1985. **Hence, statement 3 is correct.**

- o It is also recognized as An Important Bird Area by Bird Life International.
- It is **home to the largest number of one-horned rhinos** in the world.
  - o **Pobitora Wildlife Sanctuary has the highest density of one-horned rhinos** in the world and second highest number of Rhinos in Assam after Kaziranga National Park. **hence, statement 2 is not correct.**

5. Consider the following statements regarding the Bhils:

1. Bhils are associated with the states of Madhya Pradesh, Maharashtra and Karnataka.
2. Bhils are the second biggest tribe in Rajasthan after Minas.
3. Bhils are classified as Scheduled Tribes in Rajasthan.

Which of the statements given above is/are not correct?

A 1 only
B 2 only
C 3 only
D 1 and 2 only

Answer : B

Explanation

- The **Bhil** are one of the largest tribal groups, living in Chhattisgarh, Gujarat, **Karnataka, Madhya Pradesh, Maharashtra**, Andhra Pradesh and Rajasthan. **Hence, statement 1 is correct.**
  - o They are the **biggest tribe** in Rajasthan. **Hence, statement 2 is not correct.**
  - o They are **classified as scheduled tribes** in Rajasthan. **Hence, statement 3 is correct.**
- Bhil women wear traditional saris while men are dressed in long frocks and pyjamas. The woman put on heavy ornaments made of silver, brass along with rosaries of beads and silver coins and earrings.
- Other Tribes in Rajasthan
  - o Sahariyas: Sahariyas are one of the most backward Rajasthani tribes.
  - o Minas: **Minas is the second biggest tribe in Rajasthan.**
    - • They are known to be the inhabitants of Indus Valley Civilization.
  - o Gadiya Lohars: Gadiya Lohars are known to be a small Rajput Rajasthan tribe.
  - o Garasias: Garasias are another small Rajput Rajasthan tribe.

6. Teram Shehr Glacier, sometimes seen in the news recently, is a tributary of?

- a. Zemu Glacier
- b. Milam Glacier
- c. Siachen Glacier
- d. Chhota Shigri Glacier

Answer : c

- An expedition to simultaneously scale five virgin peaks located in the Teram Shehr Glacier, near Siachen Glacier was flagged off recently.
- Teram Shehr Glacier is a tributary of Siachen Glacier.

Mains Practice Questions

1Q. 'People must not be turned back to countries where they would face persecution or severe human rights violations.' Discuss the statement in terms of ethics of refugees. (150 Words)

Approach

- Start with writing in very brief about the refugee crisis in the recent years.
- Discuss the ethics of refugees and how they should be treated.
- Conclude suitably.

2Q. Law has its own limitation in bringing social change. In this context, critically evaluate the efficacy of steps taken to empower women and weaken the grip of patriarchy around them. (250 words)

Approach

- Describe social change by law through illustrations.
- Provide examples where law has been successful in bringing social change by attacking patriarchal practices.
- Give illustrations where law has failed to deal with patriarchy effectively.