AGREEMENTS INVOLVING INDIA &/OR AFFECTING INDIA'S INTERESTS

Accelerating Regional Cooperation in BIMSTEC

➢ **Context: India recently seconded a senior diplomat to drive BIMSTEC as its fourth Secretary-General (SG). Accelerating regional cooperation in BIMSTEC is going to be the defining task of the new Secretary-General.**

About BIMSTEC

- The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a multilateral regional organisation.
- It was established with the aim of accelerating shared growth and cooperation between littoral and adjacent countries in the Bay of Bengal region.
- It was founded as BIST-EC, in June 1997, with the adoption of the Bangkok Declaration, with Bangladesh, India, Sri Lanka and Thailand as members.
- It became BIMST-EC (Bangladesh, India, Myanmar, Sri Lanka and Thailand Economic Cooperation) with the entry of Myanmar in late 1997, And eventually, it was named in its current form, when Nepal and Bhutan became members in 2004.
- The BIMSTEC region hosts 22% of the world population or 1.68 billion people; and the member states have a combined GDP of US$3.697 trillion/per year.

Working Mechanism: Policy making would be done through two types of meetings:

Summits, which are supposed to be held every two years; and Ministerial meetings of Foreign and Commerce Ministers of member countries for deciding on trade and economic affairs, to be held once every year. An operational meeting of senior officials to monitor the activities of the grouping is also supposed to be held twice a year.

Significance

- The Bay of Bengal region was one of the world's most integrated regions until the early twentieth century. But, after the 1940s, members of the region became independent and pursued separate goals and alliance systems, the region's sense of community has almost completely eroded. So, the aim of setting up the regional grouping was not to create a new region for cooperation but to revive the connectivity and common interests of the members of the Bay of Bengal region.
- Its significance lies in the fact that it serves as a direct link between South Asian and South East Asian countries through intra-regional collaboration. It represents a reinforcement of relations among these countries.
- Sector-driven approach: What makes BIMSTEC different from other regional groupings such as SAARC or ASEAN is that it is a sector-driven organisation. This means the goals or areas of cooperation are divided between members, for instance, out of the multiple sectors like trade, energy, transport, fishery, security, culture, tourism and so on. For example, India was made responsible for areas like transportation, tourism and Counter-Terrorism earlier.
- After which, India was BIMSTEC's pillar for security; this will include areas of counter Terrorism and Transnational Crime (CTTCC) Disaster Management and Energy.
- Alternative to SAARC: The progress of SAARC has stalled over the years due to Indo-Pak relations and what experts call Pakistan's obstructionist approach to the organisation.
- BIMSTEC emerged as an alternative platform for cooperation.

India & BIMSTEC

- Importance of BIMSTEC for India: For India, BIMSTEC aligns with its 'Act East' policy for greater regional cooperation in southeast Asia.
- It could also be seen as aligning with India's larger goal to gain trade and security prominence in the Indian Ocean region and to cater to the concept of the 'Indo-Pacific' region, a major focus of Quad countries.
- Another important factor for India in becoming a prominent leader in the Bay of Bengal and maintaining peace and security.
- India's efforts: India also made efforts to enhance the pace of BIMSTEC's progress in recent years.
- The BIMSTEC Energy Centre was set up in Bengaluru, along with the BIMSTEC Business Council, a forum for business organisations to promote regional trade.
- It aims to create free-trade and power grid interconnectivity agreements, and a masterplan for transport connectivity in the Bay of Bengal region.

Challenges

- Sluggish pace: The first and major challenge, according to foreign policy researchers, is a lack of efficiency and "sluggish" pace of BIMSTEC's progress.
- The inconsistency in holding policy making and operational meetings is also a concern.
- Inadequate assistance: BIMSTEC secretariat also suffers from inadequate financial and manpower assistance for its operational activities.

- Trade challenges: India's percentage of annual trade with BIMSTEC countries as a percentage of its total foreign trade was in the double digits in the 1950s, but was just 4% as of 2020.
- Inter-regional trade within BIMSTEC countries also varies significantly; research shows that member countries trade with each other in terms of the proximity, availability of trade routes and the size of the country's economy.
- Notably, it was also seen that a lot of the time, BIMSTEC member countries don't import goods that are manufactured and exported by other members, instead importing from other non-member countries.
- Absence of connected coastal ecosystem: BIMSTEC members are yet to build a shared and lucrative coastal shipment ecosystem and also grapple with frequent detention of fishermen who cross territorial borders.
- Challenges faced by members: In recent years, the progress of BIMSTEC has also been underscored by Bangladesh-Myanmar relations over the Rohingya refugee crisis, the India-Nepal border issue, and most recently, the political situation in Myanmar.
- The first half of 2024 may witness elections in Bhutan, Bangladesh, India and Sri Lanka. Most likely, there will be further delay in holding the Summit.

way ahead
- Trade is one of the priority areas of the BIMSTEC.
- The progress needs to be made in the BIMSTEC Free Trade Agreement (FTA).
- BIMSTEC's connectivity plan is ready, but the real implementation is yet to start.
- Since the BMCA is ready, the Secretariat may pick up the maritime sector (example, ports, IWT, and shipping) as low-hanging fruit to start with. Besides, trade and transit facilitations must be given top priority along with energy and digital connectivity.
- Overall, a stronger secretariat is a must to drive meaningful interactions among member-states.

SCIENCE AND TECHNOLOGY- DEVELOPMENTS AND THEIR APPLICATIONS AND EFFECTS
AI tool can make weather forecasts more accurate and help tackle climate change

➢ **CONTEXT: At the recent COP28, NASA and IBM announced that an Artificial Intelligence (AI) tool called watsonx.ai would be available on the open-source AI platform Hugging Space. Watsonx.ai will help users monitor the Earth from space, measuring environmental changes that have already happened while also making predictions about the future.**
- Utilising NASA's trove of data and IBM's AI technology, the model can help scientists estimate the past and future extent of wildfires, floods, and urban heat maps.
➢ **How AI has helped in weather forecasting**
- A key factor in understanding and combating climate change rests in our ability to predict weather patterns. In recent decades, weather prediction has improved rapidly with today's six-day forecast as accurate as a five-day forecast 10 years ago. Hurricane tracks can be predicted with more accuracy three days in advance than they could 24 hours in advance 40 years ago.
- This achievement is due to improvements in atmosphere and ocean technology, and in parallel, the progress made in high-computing power. Weather models today base their predictions on massive computing simulations that run on interpreted data. However, two key challenges remain.
- First, access to that data is hard to come by. Second, analysing the same is an ever-harder task. Estimates from NASA suggest that by 2024, scientists will have 250,000 terabytes of climate data sets to work with. Climate data sets are massive and take significant time to collect, analyse and subsequently utilise to make informed decisions.
- With advancements in technology, particularly the use of AI, these data sets become easier to interpret. In the last year, the European Center for Medium-Range Weather Forecasting started using deep-learning models known as AI emulators to generate forecasts based on historical weather patterns. According to IBM, while the laws of physics are not encoded into AI emulators, they can be inferred from the data, meaning that a forecast can be generated by a desktop computer in minutes instead of the hours typically taken by current systems.
➢ **How watsonx.ai works**
- Like Microsoft's Bing, OpenAI's ChatGPT, and other chatbots, watsonx.ai is also built on a foundation model — it's trained on a broad set of uncategorised data allowing the model to apply information about one situation to another. In the case of watsonx.ai, NASA provides the datasets (in terms of satellite images instead of words,) and IBM created the foundation model to interpret them.
- In order to train the model to comprehend visual sequences that unfold over time, scientists filled in blank areas in each image and asked the model to piece it back together. It became increasingly adept at figuring out how the photos connected to one another as it reassembled additional images. The model was then adjusted for certain tasks like segmenting and categorising photos.

- In beta tests across the last year, the model has demonstrated a 15 per cent improvement in mapping flood and burn scars over the continental United States, using half as much labelled data compared to existing techniques.
- Scientist believe that foundation models have the potential to change the way observational data is analysed and help them to better understand our planet and by open sourcing the model and making it available to the world scientist hope to multiply its impact.
- The model is also designed to be extremely simple to use. A user would merely need to select a location and a date, and the model will highlight changes in floodwater, reforestation efforts and other relevant factors.

➢ **What will be its impact?**
- According to IBM, this approach has the potential to minimise the amount of data cleaning and labelling needed to train a typical deep-learning model, and it could speed up geographical analysis by a factor of three to four. Information from the visualisations may be used to lessen the effects of flooding, develop infrastructure, assist in disaster response, and safeguard the environment.
- When this type of generative AI is used in weather forecasting in the future, it may be possible to anticipate hurricanes, droughts, and other catastrophic weather occurrences with greater accuracy. This may clarify for us the precise ways in which alterations in the environment, such as the melting of ice in the poles, may affect our daily existence.
- The technology could also apply to businesses, helping disaster response teams to prepare for fires impacting residential housing or helping supply chain logistics companies better understand macro weather patterns.
- According to the scientist of IBM this system could even be used to plan where to travel or buy a house. But instead of having to be a big tech to create this application, making it open-source means putting it in the hands of the community.

➢ **AI and Climate change**
- AI is already significantly impacting climate change strategies. According to the Boston Consulting Group (BCG) AI survey report, 87 per cent of private and public sector CEOs believe that AI is an essential tool in the fight against climate change.
- In the transportation industry, AI-enabled vehicles have the potential to minimise energy use by mapping and identifying the most efficient routes. In agriculture, 40 per cent of freshwater usage is wasted on average but with AI technology, farmers can optimise crop irrigation, reducing water wastage and leading to more productive harvests. In India, AI-equipped peanut farmers have already witnessed a 30 per cent increase in yield.
- AI may also be used to assess emissions at the macro and micro levels, cut emissions and the impacts of greenhouse gases, and remove already-existing emissions from the environment. According to BCG's experience, AI may be utilised to help cut greenhouse gas emissions by five to 10 per cent of an organisation's carbon footprint.

PRELIMS

1. PM e-Bus Seva Scheme
➢ **Context: The Minister of State in the Ministry of Housing and Urban Affairs informed the Rajya Sabha about implementation of PM e-Bus Seva scheme.**
- Government of India has launched PM-eBus Sewa Scheme with the aim to augment bus operations by deployment of 10,000 electric buses on Public Private Partnership (PPP) model.
- The Scheme will support bus operations for 10 years.

➢ **Key features**
- Reaching the Unreached: The scheme will cover cities of Three lakh and above population as per census 2011 including all the Capital cities of Union Territories, North Eastern Region and Hill States.
- Under this scheme priority will be given to cities having no organized bus service.
- Direct Employment Generation:
- The scheme will generate 45,000 to 55,000 direct jobs through deployment of around 10,000 buses in city bus operation.
- The Scheme has two segments: Segment A – Augmenting the City bus services:(169 cities)
- The approved bus scheme will augment city bus operations with 10,000 e-buses on Public Private Partnership (PPP) model.
- Associated Infrastructure will provide support for Development/ up-gradation of depot infrastructure and Creation of behind-the-meter power infrastructure (substation, etc.) for e-buses.
- Segment B– Green Urban Mobility Initiatives (GUMI): (181 cities)
- The scheme envisages green initiatives like bus priority, infrastructure, multimodal interchange facilities, NCMC-based Automated Fare Collection Systems, Charging infrastructure, etc.

- Support for Operation: Under the scheme, States/Cities shall be responsible for running the bus services and making payments to the bus operators. The Central Government will support these bus operations by providing subsidy to the extent specified in the proposed scheme.
- Boost to E-Mobility: The scheme will promote e-mobility and provide full support for behind-the-meter power infrastructure.
- Cities will also be supported for development of charging infrastructure under Green Urban Mobility Initiatives.
- Adoption to Electric mobility will reduce noise and air pollution and curb carbon emission.Rail Kaushal Vikas Yojana

2. Enforcement Directorate
➤ **Context: The Supreme Court ruled that it is enough for the Enforcement Directorate (ED) to orally inform an accused of the grounds of their arrest at the time of arrest.**
➤ **About ED**
- The Directorate of Enforcement is a multi-disciplinary organization mandated with investigation of offence of money laundering and violations of foreign exchange laws.
- The statutory functions of the Directorate include enforcement of following Acts:
- The Prevention of Money Laundering Act, 2002 (PMLA): It is a criminal law enacted to prevent money laundering and to provide for confiscation of property derived from, or involved in, money-laundering and for matters connected therewith or incidental thereto.
- ED has been given the responsibility to enforce the provisions of the PMLA by conducting investigation to trace the assets derived from proceeds of crime, to provisionally attach the property and to ensure prosecution of the offenders and confiscation of the property by the Special court.
- The Foreign Exchange Management Act, 1999 (FEMA): It is a civil law enacted to consolidate and amend the laws to facilitate external trade and payments and to promote the orderly development and maintenance of foreign exchange market in India.
- ED has been given the responsibility to conduct investigation into suspected contraventions of foreign exchange laws and regulations, to adjudicate and impose penalties on those adjudged to have contravened the law.
- The Fugitive Economic Offenders Act, 2018 (FEOA): This law was enacted to deter economic offenders from evading the process of Indian law by remaining outside the jurisdiction of Indian courts.
- It is a law whereby Directorate is mandated to attach the properties of the fugitive economic offenders who have escaped from India warranting arrest and provide for the confiscation of their properties to the Central Government.
➤ **What are ED's powers of arrest?**
- Section 19 of the PMLA 2002 allows authorised ED officials to arrest persons based on material in their possession, which gives them a reason to believe that one is guilty of an offence punishable under that law.
- The reasons for such belief must be recorded in writing, and the grounds of arrest be informed to the accused as soon as may be.
- Anyone arrested shall, within 24 hours, be taken to a Special Court, Judicial Magistrate, or Metropolitan Magistrate.
- Article 22(3)(b) exempts the application of these safeguards to persons held under any preventive detention law, such as Gujarat Prevention of Antisocial Activities Act, 1985, and the Bihar Control of Crimes Act, 1981, among others.
- **Recent ruling of the Supreme Court**: In its recent ruling, the court held that the previous ruling in Pankaj Bansal, mandating furnishing of arrest grounds to the accused in writing at the time of arrest, cannot be applied retrospectively, as in the current case the arrest happened three months before the previous ruling.
- The court underscored that the previous ruling was by a two-judge Bench, it could easily be superseded by its decision in Vijay Mandanlal Choudhary vs. UOI, by a three-judge Bench.
- The court relied on its ruling in Vijay Madanlal's case to say that orally informing the accused of the grounds of arrest is sufficient.
- Vijay Madanlal Choudhary versus Union of India: In its landmark 2022 ruling on Vijay Madanlal Choudhary versus Union of India, the Supreme Court upheld various provisions of the PMLA which relate to the powers of arrest, attachment, search, and seizure conferred upon the ED.
- The court was of the opinion that all the provisions under PMLA have a reasonable nexus with the objects sought to be achieved by the Act to effectively prevent money-laundering.
- Pankaj Bansal case: The SC held that to give true meaning to the constitutional and statutory mandate of Section 19(1) of informing the arrested person of the arrest grounds, henceforth, it would be necessary, that a copy of such written grounds be furnished to the arrested person without exception.

- The SC has now ruled that the word "henceforth" in its earlier ruling implies its application to cases where the arrest took place after the Pankaj Bansal case, not before.

3. Valmiki Tiger Reserve

➢ **Context: Recently, the authorities in Bihar's Valmiki Tiger Reserve have credited the rise in the protected area (PA)'s big cat numbers to a reduction in human activities, including restrictions on illegal mining in its eco-sensitive zone.**

About the Reserve:

- Valmiki tiger reserve is located at the India -Nepal border in the West Champaran district of Bihar.
- It is bordered by Nepal's Royal Chitwan National Park in the north and the Gandak River in the west, it encompasses Valmiki National Park and Valmiki Wildlife Sanctuary.
- It includes rich flora like, Sal, rohini, sihor, teak, bamboo, semal, Mandar, shisham, Jamun, Gular, and various other species.
- This reserve hosts tigers, leopards, smaller cats, deer species, wild boar and unique birds like Kaleej Pheasant, hill myna, paradise fly catcher, and Himalayan bulbul.
- As of 2022, there were 54 tigers in the Reserve.

ANSWER WRITTING

Q. Explain the concept of separation of powers. What are the provisions in the Indian Constitution, which reflect separation of powers?

Answer: The term "trias politica" or "separation of powers" was coined by the French social and political reformer, Montesquieu. The doctrine asserts that the political authority of the state should be divided into legislative, executive and judicial powers, and to most effectively promote liberty, these three powers must be separate and act independently.

The theory of separation of powers has three essential elements:

✓ The same person should not form part of more than one of the three organs of the state.
✓ One organ should not interfere with any other organ of the state.
✓ One organ should not exercise the functions assigned to any other organ.

The separation of powers reduces conflict of interests between different organs of the state, which would reduce corruption, nepotism etc. in administration and governance.

While separation of powers is key to the workings of modern governments, no democratic system exists with an absolute separation of powers.

Governmental powers and responsibilities intentionally overlap as they are too complex and interrelated to be neatly compartmentalized. As a result, there is an inherent measure of competition and conflict among the branches of government.

In India, there are no separate provisions regarding the Doctrine of Separation of Powers in the constitution. But, following provisions reflect its status:

✓ Article 50: It puts an obligation over the State to separate the judiciary from the executive. But, since this falls under the Directive Principles of State Policy, it is not enforceable.
✓ Articles 53 and 154: These provide that the executive power of the Union and the State shall be vested with the President and the Governor respectively and they enjoy immunity from civil and criminal liability.
✓ Articles 121 and 211: These provide that the legislatures cannot discuss the conduct of a judge of the Supreme Court or High Court. They can do so only in case of impeachment.
✓ Article 361: The President and Governors enjoy immunity from court proceedings. They shall not be answerable to any court for the exercise and performance of the powers and duties of their office.

The separation of powers has been considered an essential element of the Indian Constitution in the Golaknath Case. Later, in Kesavananda Bharati Case, it was added as the 'Basic Structure' of Indian Constitution and was later affirmed in Indira Gandhi vs. Raj Narain and in the I. R. Coelho case.

However, functional overlap does occur in India, since the executive is a part of the legislature and is also involved in judicial appointments. The legislature also exercises judicial powers in case of breach of privileges and impeachment. Further, the judiciary has power to declare void the laws passed by legislature and actions taken by the executive if they violate any provision of the constitution..

MCQs

1. with reference to Wild Life Trust (WTI) of India consider the following
   1. WTI was formed in November 1998
   2. WTI is a registered charity in India under the Income Tax Act, 1961
   3. WTI operates in service of India's natural heritage and their mission is to conserve wildlife and its habitat, and to work for the welfare of individual wild animals, in partnership with communities and governments.

   How many above statement/s is/are correct?
   a) Only one
   b) Only two
   c) All the three
   d) None

2. Which Airport has been recognised as one of the world's most beautiful airports and awarded the

special prize for interiors at the UNESCO's 2023 Prix Versailles?

a) **Kempegowda International Airport (KIA) in Bengaluru**
b) Indiragandhi International Airport, Delhi
c) Bijupattnaik International Airport, Bhubaneswar
d) Chhatrapati Shivaji Maharaj International Airport, Mumbai

3. Geminids and Ursids were recently in the news. They are:
a) Pulsars
b) Star
c) Dwarf Planet
d) **Meteoroids**

4. The Govt. of India had launched "Project Tiger", the largest species conservation initiative of its kind in the world on 1st April 1973 to promote conservation of the tiger. Nine tiger reserves were established in different states of India in the year 1973.

Which one of the following combinations does not include the Tiger Reserves established in the year 1973?

a) Corbett Tiger Reserve, Similipal Tiger Reserve
b) **valmiki Tiger Reserve, Satkosia Tiger Reserve**
c) Manas Tiger Reserve, Sunderbans Tiger Reserve
d) Ranthambore Tiger Reserve, Kanha Tiger Reserve

5. With reference to mercury, consider the following statements:
1. Its consumption can result in a variety of brain, skin, and heart disorders.
2. It can be only produced by artificial processes.
3. There is no mercury contamination in India.

How many of the statements given above are correct?

a) **Only one**
b) Only two
c) All three
d) None

6. With reference to the crude oil, consider the following statements:
1. India is the world's largest consumer of crude oil.
2. At present, Saudi Arabia is India's top source of crude oil.

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**

7. With reference to the remittance inflows, consider the following statements:
1. India witnessed the highest amount of remittance inflows in the world in 2023.

2. It is not included in Gross Domestic Product (GDP).
3. India's largest source of remittance is UAE.

How many of the statements given above are correct?

a) **Only one**
b) Only two
c) All three
d) None

8. With reference to PM e-Bus Seva scheme consider the following
1. It aims to enhance urban transportation efficiency and promote Environmentally-Friendly Practices.
2. One of the segments is dedicated to strengthening urban transportation by 10,000 e-buses under the PPP model.
3. The scheme will encompass cities with populations of three lakh and above, based on the 2011 census data.
4. The scheme is projected to create a direct employment opportunity surge, with an estimated range of 45,000 to 55,000 jobs.

Which of the above statement/s is/are correct?

a) 1 and 2 only
b) 2 and 3 only
c) 1,2 and 4 only
d) **1,2,3 and 4**

9. Consider the following:
1. Venture capital funds
2. Infrastructure funds
3. Private equity funds
4. Hedge funds

How many of the above are Alternative Investment Funds (AIFs)?

a) Only one
b) Only two
c) Only three
d) **All four**

10. Torkham and Chaman borders were in the news. They connect:
a) India-Myanmar
b) India-Bangladesh
c) **Afghanistan-Pakistan**
d) Afghanistan-Iran