

GEOGRAPHY

- ❖ **Context:** A cyclonic storm, named Biparjoy, has developed in the Arabian Sea. How did Cyclone Biparjoy get its name and how are cyclones named?
- ‘Biparjoy’ was suggested by Bangladesh and the word means ‘disaster’ or ‘calamity’ in Bengali.
- The naming of cyclones is done by countries on a rotational basis, following certain existing guidelines.
- Worldwide, there are six regional specialized meteorological centers (RSMCs) and five regional Tropical Cyclone Warning Centers (TCWCs) mandated for issuing advisories and naming of tropical cyclones.
- Indian Meteorological Department is one of the six RSMCs to provide tropical cyclone and storm surge advisories to 13 member countries under the WMO/Economic and Social Commission for Asia-Pacific (ESCAP) Panel including: Bangladesh, India, Iran, Maldives, Myanmar, Oman, Pakistan, Qatar, Saudi Arabia, Sri Lanka, Thailand, United Arab Emirates and Yemen.
- RSMC, New Delhi is also mandated to name the Tropical Cyclones developing over the north Indian Ocean (NIO), including the Bay of Bengal (BoB) and the Arabian Sea (AS). So, the tropical cyclones forming over different Ocean basins are named by the concerned RSMCs & TCWCs.

The process:

- The WMO/ESCAP Panel on Tropical Cyclones in 2000 agreed in principle to assign names to the tropical cyclones in these seas.
- This list contained names proposed by then eight member countries of WMO/ESCAP PTC, viz.: Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand.
- It was expanded to include five more countries in 2018: Iran, Qatar, Saudi Arabia, United Arab Emirates and Yemen.
- The list of 169 cyclone names released by IMD in 2020 was provided by these countries — 13 suggestions from each of the 13 countries.
- After Bangladesh, the next cyclone will be named ‘Tej’ based on India’s suggestion.

The rules:

- The proposed name should be neutral to:
 - ✓ politics and political figures
 - ✓ religious beliefs,
 - ✓ cultures and
 - ✓ gender
 - Name should be chosen in such a way that it does not hurt the sentiments of any group of population over the globe
 - It should not be very rude and cruel in nature
 - It should be short, easy to pronounce and should not be offensive to any member
 - The maximum length of the name will be eight letters
- Development of cyclones in the Arabian sea
- There is less number of cyclones in the Arabian Sea than the Bay of Bengal.
 - June is one of the favorable months for the formation of cyclones in the Arabian Sea.

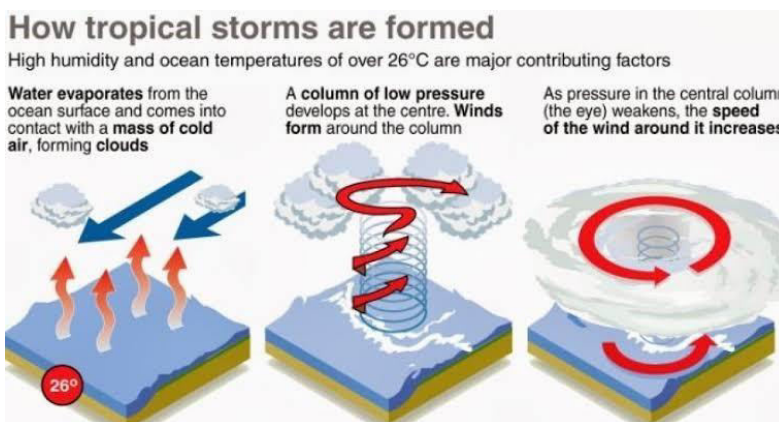
• What is a cyclone:

- ✓ A cyclone is a low-pressure system that forms over warm waters.
- ✓ Usually, a high temperature anywhere means the existence of low-pressure air, and a low temperature means high-pressure wind.
- ✓ In fact, that is one of the main reasons why we see greater number of cyclones in the Bay of Bengal compared to Arabian Sea. Bay of Bengal is slightly warmer.

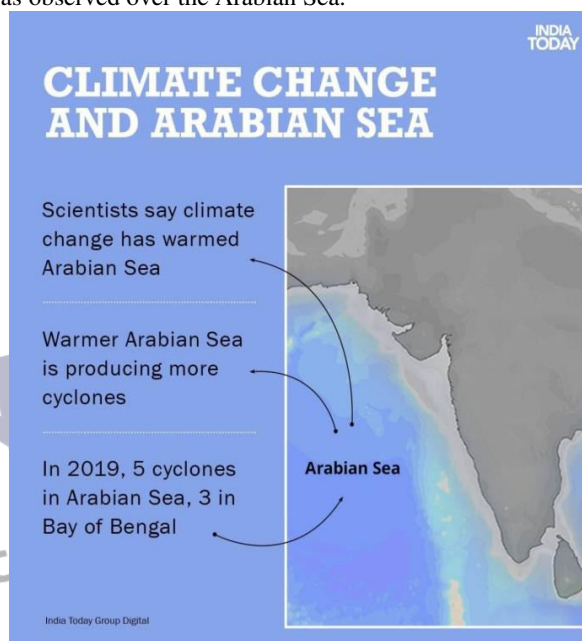
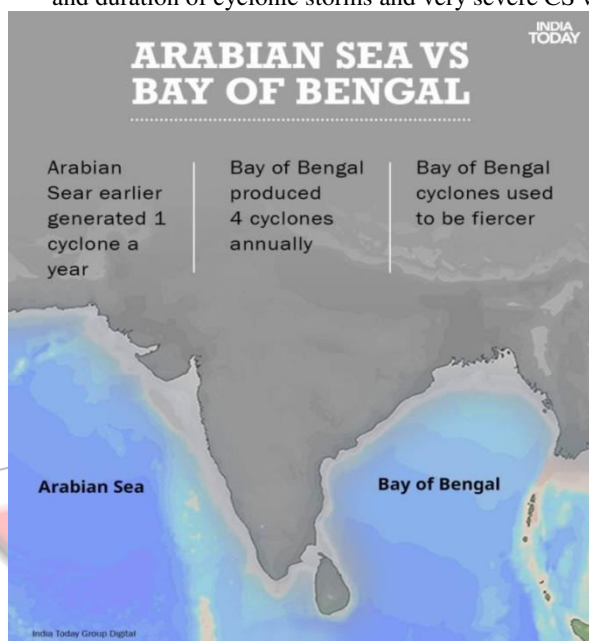
- Because of climate change, the Arabian Sea side is also getting warmer, and as a result, the number of cyclones in the Arabian Sea is showing an increasing trend in the recent trend.

How cyclone is formed?

- As air warms over hotter regions, it ascends, leading to low pressure at the surface it is covering.
- When air cools in colder areas it descends, leading to high pressure at the surface.
- In a depression or low-pressure situation, the air is rising and blows in an anticlockwise direction around the low in the northern hemisphere and in a clockwise direction in the southern hemisphere.



- This is because of the Coriolis effect, a result of the earth's rotation on its axis.
- As warm air rises and cools, water vapour condenses to form clouds and this can lead to rains.
Comparison between Bay of Bengal and Arabian sea cyclones:
- Weather systems formed over the Bay of Bengal in the peak of summer in May are among the strongest in the North Indian Ocean region.
- Warm seas present ripe conditions for the development and strengthening of cyclones and fuel these systems over the water.
- Historically, the Bay of Bengal has been known for tropical cyclones.
- But over the years there has been an increase in cyclones forming in the Arabian Sea, as well.
- An analysis of past data of cyclones over the North Indian Ocean from 1891–2020 indicates that the frequency of extremely severe cyclonic storms has increased in recent years over the Arabian Sea since 1990, and remained the same over the Bay of Bengal.
- A 2021 study noted that between 1982 and 2019, a significant increasing trend in the intensity, frequency, and duration of cyclonic storms and very severe CS was observed over the Arabian Sea.



Impact on weather in India

- With the onset of the monsoon in Kerala already delayed, the Meteorological department said the cyclonic storm is expected to critically influence the advance of the monsoon towards the Kerala coast. The weather department is yet to give a tentative date for the arrival of the monsoon in Kerala while private forecasting agency Skymet Weather said it may happen on June 8 or June 9 that too with a "meek and mild entry".

GOVERNMENT POLICIES AND INTERVENTIONS

❖ **In News: The Kerala government officially launched the Kerala Fibre Optical Network (KFON).**

About:

- Basically, KFON will act as an infrastructure provider. It is an optical fibre cable network of 30,000 kms, with 375 Points-of-Presence across Kerala.
- It will provide free Internet connections to 20 lakh below-poverty-line families and connect 30,000 government institutions in Kerala.

Implementation:

- Set up by the Kerala government in collaboration with the Kerala State Electricity Board and the Kerala State Information Technology Infrastructure Ltd.

Beneficiaries:

- In the first phase, it was aimed to provide Internet connections to 14,000 BPL families, with 100 each from the State's 140 assembly constituencies. The panchayats and the urban local bodies were given the responsibility of choosing the beneficiaries. Each household will get 1.5 GB of data per day at 15 Mbps speed.

Controversy Involved:

- Opposition leader V. D. Satheeshan accused the State government of serious corruption in implementing the KFON project.

Kerala as a role model- Kerala has been declared India's first fully e-governed state, implementing the e-office system and digital literacy campaigns.

Kerala becomes first state to declare access to internet a basic human right. Kerala already achieved the milestone of 100% literacy.

In 2016, the United Nation passed a resolution recognising Internet access as a basic human right.

Significance

- The KFON infrastructure will also benefit private service providers as they can use its cable network.
- It will reduce the digital divide by ensuring high speed broadband internet access to all houses and government offices.
- It is also intended to give a fillip to e-governance and accelerate Kerala's journey towards being a knowledge-based economy.

What is Digital Divide?

- The term describes a gap in terms of access to and usage of information and communication technology. The digital divide can exist between those living in rural areas and those living in urban areas, between the educated and uneducated, between economic classes, and on a global scale between more and less industrially developed nations.

Implications of Digital Divide

- The digital divide in India has several implications on political, governance, social, economic and educational prospects. Without internet access, political empowerment and mobilisation are challenging in the age of social media.
- Because of the digital gap, rural areas suffer from information poverty.
- The digital gap creates economic disparities between people who can and cannot afford the technology. The digital gap influences children's ability to learn and develop.

Government's Initiative to bridge the Digital Divide

- Optical Fibre Network (NOF-N), a project aimed to ensure broadband connectivity to over two lakh (200,000) gram panchayats of India by 2016.
- The government also established the National Digital Literacy Mission and the Digital Saksharta Abhiyan in 2014. It also announced many programmes in 2015 as part of its Digital India drive to link the whole country. This includes the PM Gramin Digital Saksharta Abhiyan, which was established in 2017.
- E-pathshala to avail study materials for every rural and urban student.
- Common Service Centres which enabled the digital reach to unreachable areas.

State's projects

- **Gyandoot Project:** Gyandoot, which means 'purveyor of knowledge' in Hindi, is a government-to-citizen, intranet-based service portal, implemented in the Dhar district of the state of Madhya Pradesh, India, in January 2000. The project was designed to extend the benefits of information technology to people in rural areas by directly linking the government and villagers through information kiosks.
- **Sourkaryan & E-Seva:** Sourkaryan, which is now operational in the port city of Visakhapatnam, provides the facility for a citizen to pay property taxes online and also view details of plans and projects of the government and local bodies. Similarly the E-Seva Kendras in the Hyderabad state city is an innovative experiment towards eliminating personal contact between citizens and the bureaucracy.

PRELIM FACTS

1. Commission of Railway Safety (CRS)

- **In News:** Investigation into the recent tragic train accident in Odisha is being conducted by the Commissioner of Railway Safety (CRS).
- About Commissioner of Railway Safety (CRS): The Commission of Railway Safety (CRS) is a government body that acts as the railway safety authority in the country. Rail safety commissioners are part of CRS.
- Purpose: CRS deals with matters related to safety of rail travel and operations, among some other statutory functions – inspectorial, investigatory, and advisory – as laid down in the Railways Act, 1989.
- Administrative Control: Ministry of Civil Aviation (MoCA).
- The CRS does not report to the Ministry of Railways of the Railway Board.
- Headquarter (HQ): Lucknow, Uttar Pradesh
- Why is it under MoCA Control?
- The reason or principle behind this is to keep the CRS insulated from the influence of the country's railway establishment and prevent conflicts of interest.
- The separation of CRS from the Railway Board enhances the credibility of safety oversight and investigations.

2. Exercise Air Defender 23

- **In News:** Germany is preparing to host the biggest air deployment Exercise Air Defender 23 in NATO's history.
- About-The Air Defender 23 exercise will see 10,000 participants and 250 aircraft from 25 nations respond to a simulated attack on a NATO member country.
- The exercise will be held across Germany, with some of the training taking place at Ramstein Air Base, which is one of NATO's largest air bases.

- The exercise is being held in response to the increased threat posed by Russia following its invasion of Ukraine. The exercise is designed to demonstrate NATO's readiness to respond to any threat to its airspace.
- Sweden, which is hoping to join the alliance, and Japan are also taking part in the exercise.
- About North Atlantic Treaty Organization (NATO)
- North Atlantic Treaty Organization is a military alliance (also called the Washington Treaty) made up of the United States, Canada, France, and eight other European countries.
- It was founded in 1949.
- The key purpose of NATO's formation was to create a "collective defence" against any potential German or Soviet Union attack in the aftermath of World War II.
- Article 5: If a NATO member attacks another member, it is considered 'an attack on all NATO members, according to Article 5 of NATO.
- Headquarters: Brussels, Belgium
- India is not a member country of NATO.

Membership of NATO: It is open to all European nations that fulfil certain criteria that include "a functioning democratic political system based on a market economy; fair treatment of minority populations; a commitment to resolve conflicts peacefully; an ability and willingness to make a military contribution to NATO operations; and a commitment to democratic civil-military relations and institutions". New members are admitted with the unanimous consent of all members.

3. Scheme for "Exploration of Coal and Lignite"

- **In News:** The Cabinet Committee on Economic Affairs (CCEA) approved the continuation of a central-sector scheme for "Exploration of Coal and Lignite" with an estimated outlay of ₹2,980 crore from 2021-22 to 2025-26.
- **About** Central Sector Scheme of "Exploration of Coal and Lignite scheme"
- ✓ Under this scheme, exploration for Coal and Lignite is conducted in two broad stages:
- ✓ Promotional (Regional) Exploration: Approximately, 1300 sq. km area will be covered under Regional exploration and
- ✓ Detailed Exploration in Non-Coal India Limited blocks: Approximately 650 sq. km area will be covered under detailed exploration.
- ✓ Exploration for Coal and Lignite is required to prove and estimate coal resources available in the country which helps in preparing detailed project report to start coal mining.
- ✓ The Geological reports prepared through these exploration is used for auctioning new coal blocks and the cost is thereafter recovered from successful allocatee.

Additional Information

Coal:

- Coal is a one of the important minerals which is mainly used in the generation of thermal power and smelting of iron ore. It occurs in rock sequences mainly of two geological ages, namely Gondwana and tertiary deposits.
- The Indian coal deposits are primarily concentrated in the Gondwana sediments occurring mainly in the eastern and central parts of Peninsular India, although Gondwana coal deposits also occur in Assam and Sikkim in the north eastern part of the country.
- The Tertiary coal-bearing sediments are found in Assam, Arunachal Pradesh, Nagaland, and Meghalaya.

Lignite

- Lignite is a low-grade brown coal, which is soft with high moisture content.
- Indian lignite deposits occur in the Tertiary sediments in the southern and western parts of the peninsular shield particularly in Tamil Nadu, Puducherry, Kerala, Gujarat, Rajasthan, and Jammu & Kashmir.
- The principal lignite reserves are in Neyveli in Tamil Nadu and are used for the generation of electricity.

4. Maiden India-france-uae maritime partnership exercise

- The first edition of India, France and UAE Maritime Partnership Exercise commenced on 07 Jun 23 in the Gulf of Oman.
 - INS Tarkash and French Ship Surcouf both with integral helicopters, French Rafale aircraft and UAE Navy Maritime Patrol Aircraft are participating in the exercise.
 - The exercise scheduled over two days will witness a wide spectrum of naval operations such as Surface Warfare, involving tactical firing and Drills for Missile engagements on surface targets, Helicopter Cross Deck Landing Operations, Advanced Air Defence Exercise and Boarding operations. The exercise would also include cross embarkation of personnel for exchange of best practises.
 - The maiden exercise aims to enhance trilateral cooperation between the three navies and pave way for adopting measures towards addressing traditional and non-traditional threats in the maritime environment. The exercise will also enhance collaboration in ensuring safety of mercantile trade and freedom of navigation at high seas in the region.
- INS Tarkash:
- INS Tarkash (F50) is the second Talwar-class frigate.

- It was built in Kaliningrad, Russia.
- It was commissioned to Indian Navy in 2012.

ANSWER WRITTING

Q. The National Infrastructure Pipeline (NIP) while pushing infrastructure projects will also make economic growth more inclusive. Elaborate.

ANS: The National Infrastructure Pipeline (NIP) is a group of social and economic infrastructure projects slated to be established over a period of five years with an initial sanctioned amount of 1 102 lakh crore. The NIP was first announced in 2019. National Infrastructure Pipeline (NIP) takes account projects to be implemented over the next five years (2019-2025) NIP includes both economic and social infrastructure projects.

NIP will push for infrastructure projects

- NIP will push for infrastructure projects through investment across sectors such as energy (24%), roads (18%), urban (17%) and railways (12%)
- It will help realize potential of growing urban economy- in required areas such as redevelopment of slum neighborhoods, urban roads, water supply coverage and quality, wastewater treatment facilities, and urban mobility through public transport
- It will strengthen agricultural and rural infrastructure. Irrigation and rural infrastructure projects would account for 7.7 lakh crore each.
- It will further increase the connectivity in India, especially in rural areas. Road projects will account for Rs. 19.63 lakh crore while another Rs. 13.68 lakh crore would be for railway projects. National Infrastructure Pipeline will also make economic growth more inclusive
- Economic Survey 2018-19 argues that growth can be sustained by a virtuous cycle approach where investment is the key driver that drives demand, creates capacity, increases labour productivity, generates jobs etc.
- Well-developed infrastructure improves revenue base of the government which can be used for welfare programmes.
- Improved governance: Well-developed infrastructure enhances level of economic activity, creates additional fiscal space by improving revenue base of the government, and ensures quality of expenditure focused on productive areas.
- Employment: Well-planned NIP will enable more infrastructure projects, grow businesses, create jobs, improve ease of living, and provide equitable access to infrastructure for all, making growth more inclusive.
- Improve ease of living: as in order to fulfill various Sustainable development goals (SDGs), India needs to develop reliable, sustainable and resilient infrastructure in both regional centers and trans-border areas
- Inclusive growth: Availability of quality infrastructure is a prerequisite to achieve broad-based and inclusive growth on a sustainable basis.

Major constraints in Infrastructure sector

- Regulatory uncertainty- due to various risks which include procedural delays, lengthy processes in land acquisition, payment of compensations, environmental concerns, lesser traffic growth than expected etc.
- Banks are recovering from NPA problem. If they are pushed to fund for NIP, they may further face NPA crisis.
- Scale of pipeline is massive and its implementation will not be easy.
- Land acquisition is a big challenge for completion of infrastructure projects. Rehabilitation of millions of people will also be not easy.

Conclusion:

The National Infrastructure Pipeline is an ambitious plan that would include greenfield and brownfield projects costing above Rs 100 crore. It will also enable robust marketing of the pipeline of projects requiring private investment through the India Investment Grid (IIG), National Investment & Infrastructure Fund (NIIF), etc. Well-planned NIP will enable more infrastructure projects, power business, create jobs, improve ease of living, and provide equitable access to infrastructure for all, thereby making growth more inclusive.

MCQs

- | | |
|--|---|
| <p>1. Recently, A cyclonic storm has developed in the Arabian Sea. Considered the following statement regarding this.</p> <p>1. This cyclonic storm name is Biparjoy' and this suggested by Bangladesh .</p> <p>2. The tropical cyclones forming over different Ocean basins are named by the concerned RSMCs & TCWCs.</p> | <p>3. Tropical cyclone is confined between 5-30° N-S of the equator, whereas temperate cyclone originate between 30 to 60° N-S of the equator.</p> <p>How many of the above statement are correct ?</p> <p>a) Only one</p> <p>b) Only two</p> <p>c) Only three</p> |
|--|---|

- d) None
2. Considered the following statement regarding INS Tarkash:
- INS Tarkash (F50) is the second Talwar-class frigate.
 - It was indigenously built .
 - It was commissioned to Indian Navy in 2022.
- How many of the above pairs are correct ?
- Only one**
 - Only two
 - Only three
 - None
3. Considered the following statement regarding NATO.
- Headquarters: Brussels, Belgium
 - India is not a member country of NATO.
 - It was founded in 1949.
- How many of the above statement are correct ?
- Only one
 - Only two
 - Only three**
 - None
4. Consider the following statements regarding the Giant Metrewave Radio Telescope (GMRT)
- It is a high-frequency radio telescope that helps investigate various radio astrophysical problems.
 - It is a project of the Department of Atomic Energy (DAE), operating under the Tata Institute of Fundamental Research (TIFR).
- Which of the statements given above is/are correct?
- Only 1
 - Only 2**
 - Both 1 and 2
 - None
5. With reference to the Exploration of Coal and Lignite scheme, consider the following statements:
- It is a central sector scheme to explore coal and lignite in India.
 - The duration of the scheme has been extended to till 2030.
- Which of the statements given above is/are correct?
- Only 1**
 - Only 2
 - Both 1 and 2
 - None
6. With reference to the Agni Prime missile, consider the following statements:
- It is a short-range missile which has a range of 1000 km to 1500 km.
 - It is a surface-to-air ballistic missile with a carrying capacity of 5000kg.
- Which of the statements given above is/are correct?
- Only 1**
 - Only 2
 - Both 1 and 2
 - None
7. RuPay card, which was recently seen in the news, was launched by which organisation?
- Reserve Bank of India
 - National Payments Corporation of India**
 - NITI Aayog
 - None of the above
8. Consider the following statements
- “Mission on Advanced and High-Impact Research (MAHIR)” scheme.
 - MAHIR is a national initiative launched by the Ministry of Power and the Ministry of New and Renewable Energy.
- Which of the statements given above is/are correct?
- Only 1
 - Only 2
 - Both 1 and 2**
 - None
9. Consider the following statements regarding World Food Safety Day
- It is observed every year on 7th June
 - Facilitated by the WHO and FAO.
 - The theme this year is “Food standards save lives
- How many of the above statement are correct ?
- Only one pair
 - Only two pair
 - Only three pair**
 - None
10. Consider the following statements
- Statement 1:** Sargassum is large brown seaweed found abundantly in Indian ocean.
- Statement 2:** vibrio bacteria in the sargassum make its colour brown.
- Which one of the following is correct in respect of the above statements.
- Both Statement 1 and 2 is correct and statement 2 is correct explanation of statement 1.
 - Both Statement 1 and 2 is correct and statement 2 is not correct explanation of statement 1.
 - Statement 1 is correct but statement 2 is incorrect**
 - Statement 2 is correct but statement 1 incorrect