



India, Iran and Chabahar Port

For Prelims: [Chabahar port](#), [International North-South Transport Corridor](#), [International trade in Indian rupees](#), [Vostro account](#).

For Mains: Significance of Chabahar Port for India, Areas of Contention Between India and Iran.

Source: HT

Why in News?

[India and Iran](#) are making significant progress in **finalizing a 10-year pact for operations at the Chabahar port**, with key issues narrowing down.

- Additionally, the two nations are exploring ways to address the **depletion of Iran's rupee reserves**, which has impacted trade, especially in commodities like **rice, tea, and pharmaceuticals**.

What is the Significance of Chabahar Port for India?



- **About:**

- **Chabahar is Iran's only oceanic port.** It is situated in Sistan and Baluchistan Province,

on the **Makran coast**.

- There are two main ports in Chabahar – the **Shahid Kalantari port and the Shahid Beheshti port**.
 - The Shahid Kalantari port was developed in the 1980s.
 - Iran had offered India the project of developing the Shahid Beheshti port which was well received by India.
- **Progress and Updates Regarding the Chabahar Port Deal:**
 - The two countries signed an **initial agreement in 2016** for India to develop and operate the port's Shahid Beheshti terminal for 10 years.
 - However, the **finalization of the long-term agreement has been delayed by several factors** including **differences on some clauses in the pact**.
 - One of the main sticking points was the **clause related to jurisdiction for arbitration in case of disputes**.
 - India wanted the arbitration to be held in a neutral country, while Iran preferred its own courts or a friendly country.
 - According to some recent reports, India and Iran have narrowed the gap on the arbitration issue and are looking at the **option of taking up these matters at arbitration courts in a location such as Dubai**.
 - They have also made progress on other issues, such as tariffs, customs clearance, and security arrangements.
- **Significance of Chabahar Port:**
 - **Alternative Trade Route:** Historically, India's access to Afghanistan and **Central Asia** has been largely **dependent on transit routes through Pakistan**.
 - Chabahar Port offers an alternative route that bypasses Pakistan, reducing India's reliance on its neighbor for trade with Afghanistan and beyond.
 - This is particularly important given the often-tense relations between India and Pakistan.
 - Also, Chabahar port will boost **India's access to Iran**, the key gateway to the **International North-South Transport Corridor** that has sea, rail and road routes between **India, Iran, Russia, Central Asia and Europe**.
 - **Economic Benefits:** Chabahar Port offers India a gateway to the resource-rich and economically vibrant region of Central Asia.
 - It can significantly enhance **India's trade and investment opportunities in these markets**, potentially leading to economic growth and job creation in India.
 - **Humanitarian Assistance:** Chabahar Port can serve as a crucial entry point for **humanitarian assistance and reconstruction efforts in Afghanistan**.
 - India can use the port to provide aid, infrastructure development support, and other assistance to Afghanistan, contributing to regional stability.
 - **Strategic Influence:** By developing and operating Chabahar Port, **India can enhance its strategic influence in the Indian Ocean region**, thus strengthening India's geopolitical position.

What is the Status of Economic Ties Between India and Iran?

- **Status:**
 - Over the years, India's trade with Iran has seen significant fluctuations. In 2019-20, India's imports from Iran, primarily crude oil, **fell by about 90% to USD 1.4 billion compared to USD 13.53 billion in 2018-19**.
 - Also, Iran has seen a depletion of its **rupee reserves in the vostro account**, affecting its ability to import key Indian commodities like basmati rice and tea.
- **Revival:**
 - To revive **trade between India and Iran**, which has been impacted by **US and Western sanctions**, both nations are considering the option of **rupee-rial trade**.
 - This move aligns with the **Reserve Bank of India's** decision to allow **invoicing and payments for international trade in Indian rupees in July 2022**.
 - Rupee-Rial trade refers to trade between India and Iran using their **respective currencies, the Indian Rupee (INR) and the Iranian Rial (IRR)**, instead of using widely accepted international currencies like the US Dollar (USD).
 - This type of trade is often used when international sanctions or restrictions make it

difficult for **countries to use global currencies for trade with a particular nation**, as was the case with Iran due to US sanctions.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q. What is the importance of developing Chabahar Port by India? (2017)

- (a) India's trade with African countries will enormously increase.
- (b) India's relations with oil-producing Arab countries will be strengthened.
- (c) India will not depend on Pakistan for access to Afghanistan and Central Asia.
- (d) Pakistan will facilitate and protect the installation of a gas pipeline between Iraq and India.

Ans: (c)

Mains

Q. In what ways would the ongoing U.S-Iran Nuclear Pact Controversy affect the national interest of India? How should India respond to this situation? (2018)

Q. The question of India's Energy Security constitutes the most important part of India's economic progress. Analyse India's energy policy cooperation with West Asian countries. (2017)

Prompt NPA Labeling for Willful Defaulters

For Prelims: [Willful Defaulter](#), [NPA](#), [RBI](#), [ARCs](#)

For Mains: Challenges of NPA, Provisions to NPA resolution, Banking Sector, Mobilisation of Resources, Bad Bank

Source:IE

Why in News ?

The [Reserve Bank of India \(RBI\)](#) in a **recent draft proposed** that **lenders should classify** a borrower as a willful defaulter **within six months** of their account being declared a **non-performing asset (NPA)**.

What are Key Highlights of the RBI Draft ?

- Under the new regime, the lender must identify wilful defaulter borrowers within a specified six-month timeframe, whereas in the previous system, there was no such time constraint.
 - Lenders must assess wilful default for **accounts over Rs 25 lakh within 6 months of becoming NPAs.**
- An **Identification Committee** formed by lenders reviews evidence of wilful default.
- Policies require **non-discriminatory photo publishing for wilful defaulters**, and no credit is given to them for up to 1 year post removal from the **List of Wilful Defaulters (LWD)**; additionally, no credit for new ventures is allowed for 5 years after LWD removal.
- Guarantors can be pursued without exhausting remedies against principal debtors, and **investigation of wilful default is necessary** before transferring credit to others or ARCs.

Who is a Wilful Defaulter?

- **About:**
 - A **wilful defaulter means a borrower or a guarantor who has committed** wilful default and the outstanding amount is **Rs 25 lakh and above.**
 - A **large defaulter refers** to a borrower with an **outstanding balance of Rs 1 crore** or more, whose account has been categorized as doubtful or a loss.
- **Events Constituting Wilful Default:**
 - The unit has defaulted in meeting its payment/repayment obligations to the lender **even when it has the capacity** to honour the said obligations.
 - The unit has defaulted in meeting its payment/repayment obligations to the lender and has not utilised the finance from the lender **for the specific purposes for which finance was availed** of but has diverted the funds for other purposes.
 - The unit has defaulted in meeting its payment/repayment obligations to the lender and has **siphoned off the funds so that the funds have not been utilised for the specific purpose** for which finance was availed of, nor are the funds available with the unit in the form of other assets.
 - The unit has defaulted in meeting its payment/repayment obligations to the lender and has also **disposed off or removed the movable fixed assets or immovable property** given by him or it for the purpose of securing a term loan without the knowledge of the bank/lender.

What is a Non-Performing Asset?

- **About:**
 - NPA refers to a **classification for loans** or advances that are in **default or are in arrears on scheduled payments of principal or interest.**
 - In most cases, debt is classified as non-performing, when the loan payments have not been made for a **minimum period of 90 days.**
 - **For agriculture**, if principle and interest is not paid for **two cropping seasons**, the loan is classified as NPA.
- **Types:**
 - **Gross NPA:** Gross NPAs are the sum of all the loans that have been defaulted by the individuals
 - **Net NPA:** Net NPAs are the amount that is realized after provision amount has been deducted from the gross non-performing assets.
- **Laws and provisions related to NPAs:**
 - **Bad Bank:**
 - The bad bank in India is called [National Asset Reconstruction Ltd \(NARC\)](#).
 - This NARC will work as an asset reconstruction company.
 - It will buy bad loans from the banks, relieving banks of the NPA. NARC will then attempt to sell the stressed loans to distressed debt buyers.
 - The government has already set up [India Debt Resolution Company Ltd \(IDRCL\)](#) to sell these stressed assets in the market. Accordingly, IDRCL will attempt to sell them in the market.
 - **The Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002:**
 - The [SARFAESI Act](#) allows banks and financial institutions to take **possession of**

collateral assets and **sell them to recover** outstanding dues without the intervention of the court.

- It provides **provisions for the enforcement of security interests** and **allows banks** to issue demand notices to defaulting borrowers.
- **The Insolvency and Bankruptcy Code (IBC), 2016:**
 - The **IBC provides a comprehensive framework** for the **insolvency and bankruptcy resolution** process in India.
 - It aims to facilitate the **time-bound resolution** of stressed assets and **promote a creditor-friendly environment**.
 - Under the IBC, **a debtor or creditor can initiate insolvency** proceedings against a defaulting borrower.
 - It established the [National Company Law Tribunal \(NCLT\)](#) and the [Insolvency and Bankruptcy Board of India \(IBBI\)](#) to oversee the process.
- **Importance of NPA Recovery:**
 - The **recovery of NPAs** is crucial to **protect the interests of depositors** and stakeholders.
 - **Compromise settlements** should **prioritize the maximum recovery of dues** with minimal expense and within a shorter time frame.
 - **Consideration of Public Interest:**
 - During compromise settlements, **banks**, being public sector entities, should **consider the interests of the tax-paying public** over the borrowers' interests.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. With reference to the governance of public sector banking in India, consider the following statements: (2018)

1. Capital infusion into public sector banks by the Government of India has steadily increased in the last decade.
2. To put the public sector banks in order, the merger of associate banks with the parent State Bank of India has been affected.

Which of the statements given above is/are correct?

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

Ans: (b)

Metal Mining Pollution

For Prelims: Metal Mining Pollution, [Metal Mining Sites](#), Metallic Ores, Tailings, Waste Disposal, [Water Pollution](#).

For Mains: Metal Mining Pollution and its Ramifications on Ecosystem.

Why in News?

Recently, the University of Lincoln, the United Kingdom, has published a study, spotlighting the **extensive ramifications of Metal Mining Pollution** in rivers and Floodplains worldwide.

What is the Research Methodology of the Study?

- The research simulated **contamination from both operational and decommissioned [Metal Mining Sites](#)**, encompassing critical aspects such as tailings facilities designed for waste storage.
- The study meticulously evaluated **hazardous substances** including **lead, zinc, copper, and arsenic**.
 - These elements, **detrimental to both ecosystems and human health**, tend to accumulate downstream from mining sites over prolonged durations.
 - This underscores the lasting and far-reaching consequences of mining pollution.
- The research team, acknowledging data limitations in certain countries, considered the figures **presented to be conservative estimates**.
 - This signifies the potential for the actual impact to be even more extensive, underlining the need for comprehensive and accurate data for a thorough assessment.

What are the Key Highlights of the Study?

- **Extent of Pollution Exposure:**
 - Pollution stemming from the **continuous discharge of mining waste into rivers** affects an astonishing number of people, **nearly 50 times more than those immediately impacted** by tailings Dam (embankment used to store byproducts of mining) Failures.
- **Population and Ecosystem Impact:**
 - The impacted floodplains due to the Mining Waste house a **substantial population of about 23.48 million people**, in addition to sustaining a significant livestock population of 5.72 million.
 - Moreover, these **regions cover an expansive area exceeding 65,000 square kilometers** of irrigated land.
- **Significance of the Study:**
 - The provides a groundbreaking predictive model to **assess the far-reaching offsite and downstream impacts of mining** on ecosystems and human health.
 - It offers a **critical tool for governments, environmental regulators**, the mining industry, and local communities to make informed decisions, emphasizing the necessity to prioritize environmental sustainability.
 - This research is paramount in guiding the global transition to green energy while mitigating the ecological footprint of mining, **particularly in the modern era where sustainable mining practices are increasingly prioritized**.
- **Call for Action:**
 - The study concluded by advocating for enhanced global data collection and monitoring systems to better comprehend the ecological and health impacts of the metal mining industry.
 - This **highlights the need for a more comprehensive understanding** to address the associated hazards effectively.

What is Metal Mining Pollution?

- **About:**
 - Metal mining pollution refers to the **contamination and environmental degradation** caused by the **extraction and processing of [Metallic Ores](#) to obtain valuable metals**.
 - It involves various activities associated with **mining, including exploration, extraction, transportation**, processing, and waste disposal.
 - These processes often **release harmful substances into the air, water, and soil**, leading to adverse effects on ecosystems, human health, and wildlife.

▪ **Sources of Metal Mining Pollution:**

- **Tailings:** Tailings are finely ground rock particles left over after the valuable **metals have been extracted** from the ore. These tailings often contain hazardous elements like mercury, arsenic, lead, cadmium, and other toxic substances that can contaminate nearby water sources and soil.
- **Acid Mine Drainage (AMD):** AMD occurs when **sulfide minerals in the mined rocks are exposed to air and water**, leading to the production of sulfuric acid.
 - This acid can contaminate rivers, streams, and groundwater, posing a significant threat to aquatic life and ecosystems.
- **Airborne Pollution:** Dust and particulate matter generated during mining operations can become airborne, spreading pollutants **such as heavy metals and other harmful compounds**. Inhalation of these pollutants can pose health risks to both miners and nearby communities.
- **Chemical Usage:** Chemicals such as cyanide and sulfuric acid are often used in metal extraction processes. **Accidental spills or inadequate containment** of these chemicals can result in contamination of soil and water, causing serious environmental damage.

How can Metal Mining Pollution be Addressed?

▪ **Stringent Regulations and Compliance:**

- Implement and enforce strict environmental regulations and standards that govern metal mining operations.
- These regulations should cover waste disposal, emissions, water management, and reclamation to ensure compliance and minimize pollution.

▪ **Advanced Waste Management:**

- Encourage the use of modern tailings storage facilities and waste disposal methods that minimize the risk of pollution. Employ strategies to prevent tailings dam failures, such as proper design, monitoring, and periodic assessments.

▪ **Responsible Chemical Usage:**

- Promote the **responsible and controlled use of chemicals** in mining processes. Alternative, less toxic chemicals should be explored and utilized to reduce the environmental impact.

▪ **Water Management and Treatment:**

- Implement **effective water management strategies** to control and treat water discharged from mining operations. Employ water treatment technologies to remove harmful substances before releasing water into the environment.

▪ **Mine Reclamation and Rehabilitation:**

- Make mine **reclamation and rehabilitation an integral part** of mining operations. Restore mined areas to their natural state, promoting ecosystem recovery and biodiversity.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. Which of the following is/are the possible consequence/s of heavy sand mining in riverbeds? (2018)

1. Decreased salinity in the river
2. Pollution of groundwater
3. Lowering of the water-table

Select the correct answer using the code given below.

- (a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Ans: (b)

- Sand mining is the process of extracting sand from the river bed or from the coastal region.
- Excessive sand mining results in pollution of river water by lowering the pH value of water, mixing of various metal oxides, reduction of oxygen and thus, increasing the Biological Oxygen Demand (BOD). Polluted river water causes pollution of ground water. **Hence, 2 is correct.**
- Due to increased metal oxides and their mixing in river water, the salinity of the water increases. **Hence, 1 is not correct.**
- Volume of water flow in the river is decreased, thus it results in lowering of the water table. **Hence, 3 is correct. Therefore, option (b) is the correct answer.**

Mains

Q. Coastal sand mining, whether legal or illegal, poses one of the biggest threats to our environment. Analyse the impact of sand mining along the Indian coasts, citing specific examples. **(2019)**

Q. "In spite of adverse environmental impact, coal mining is still inevitable for development". Discuss. **(2017)**

More Frequent Cyclones in Eastern Arabian Sea

For Prelims: [Tropical Cyclones \(TC\)](#), [Arabian Sea](#), [Indian Ocean Dipole \(IOD\)](#), [El Nino](#).

For Mains: More Frequent Cyclones in the Eastern Arabian Sea, Environmental pollution and degradation, Salient features of the world's physical geography, Important Geophysical phenomena such as earthquakes, Cyclones etc, Changes in critical geographical features and in flora and fauna and the effects of such changes.

Source: [IE](#)

Why in News?

Recently, a study has been published in the Nature Journal, which highlights the concerns related to [Climate Change](#) causing frequent [Tropical Cyclones \(TC\)](#) in the [Eastern Arabian Sea](#).

- The study is part of the "**Forecasting with Fisher's**" project, by the **Advanced Centre for Atmospheric Radar Research (ACARR)** at Cochin University of Science and Technology (CUSAT).

What are the Key Findings of the Study?

- **Increasing Frequency and Severity of Cyclones:**
 - Changes in ocean and atmosphere **warming patterns are leading to more frequent and severe tropical** cyclones in the Eastern Arabian Sea, adjacent to India's west coast.
 - Typically, tropical cyclones in the Arabian Sea occur **at the start of the southwestern monsoon between March and June**, as well as after the season, between October and December.
 - The Arabian Sea accounts for about 2% of the annual global mean of tropical cyclones but **poses a considerable threat due to its densely populated coastlines.**
- **Impact of Indian Ocean Dipole (IOD):**
 - The positive phase of [IOD](#), where one part of the ocean gets warmer than the other, leads

to **warmer sea surface temperatures** and increased precipitation in the western Indian Ocean region.

- **IOD, sometimes referred to as the Indian Nino**, is similar to the [El Nino](#) phenomenon, occurring in the relatively smaller area of the [Indian Ocean](#) between the Indonesian and Malaysian coastline in the east and the African coastline near Somalia in the west.

▪ **Anthropogenic Influence:**

- The recent increase in the frequency of extremely severe cyclonic storms over the Arabian Sea during the post-monsoon season is **attributed to anthropogenic (human-caused) influence** rather than natural variability.
- Human-induced climate change is contributing to the **intensification and higher frequency of cyclones** in the Arabian Sea.

▪ **Impact on Western Indian Coastline:**

- The intensification and increase in cyclone frequency pose a significant threat to the **densely populated coastal regions** along the western coast of **India, from Gujarat to Thiruvananthapuram**, facing higher risks, including strong winds, storm surges, heavy rainfall, and other associated hazards.

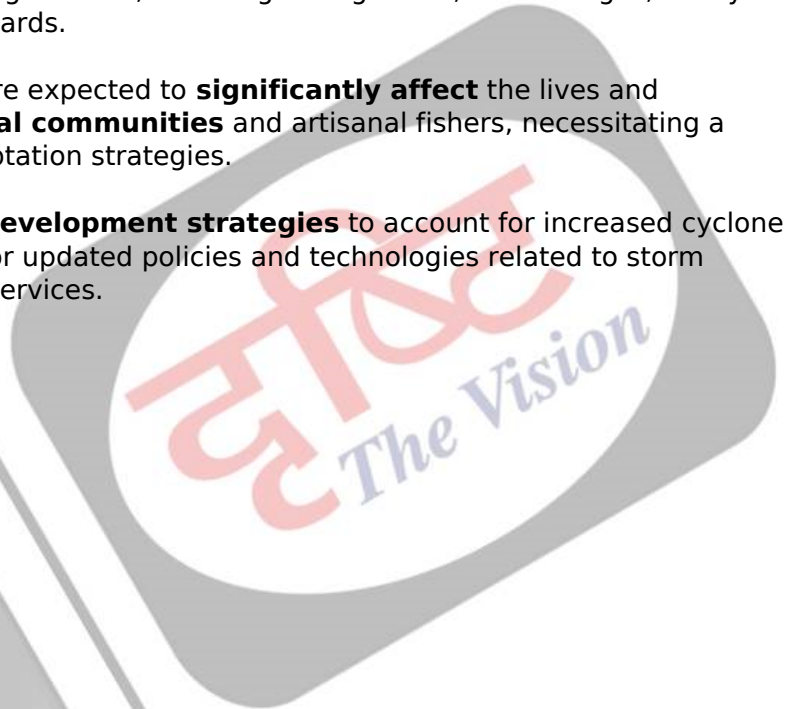
▪ **Concerns for Coastal Communities:**

- The changing cyclone patterns are expected to **significantly affect** the lives and livelihoods of **indigenous coastal communities** and artisanal fishers, necessitating a need for further studies and adaptation strategies.

▪ **Recommendations:**

- The study calls for **changes in development strategies** to account for increased cyclone risks and emphasizes the need for updated policies and technologies related to storm warnings and localized weather services.

What are Cyclones?



CYCLONE

Cyclones are rapid **inward** air circulation around a **low-pressure** area.

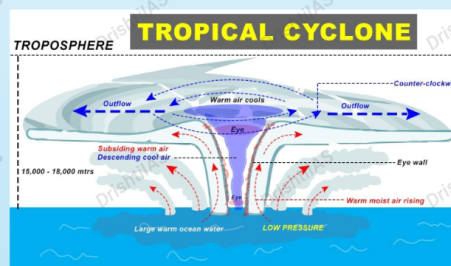


Cyclone v/s Anticyclone

Pressure System	Pressure Condition at the Center	Pattern of Wind Direction	
		Northern Hemisphere	Southern Hemisphere
Cyclone	Low	Anticlockwise	Clockwise
Anticyclone	High	Clockwise	Anticlockwise

Classification

- **Tropical Cyclones;** originate between the **Tropics of Capricorn and Cancer**
- **Extra Tropical/ Temperate Cyclones;** originate in the **Polar Regions**



Conditions for Formation

- Large sea surface with temperature $>27^{\circ}\text{C}$.
- Presence of the **Coriolis force**
- Small **variations in the vertical wind speed**
- **A pre-existing weak low- pressure area**
- **Upper divergence** above the sea level system

Different Names for Tropical Cyclones

- **Typhoons** - Southeast Asia and China
- **Hurricanes** - North Atlantic and eastern Pacific
- **Tornados** - West Africa and southern USA
- **Willy-willies** - Northwest Australia
- **Tropical Cyclones** - Southwest Pacific and Indian Ocean

Nomenclature

- Nodal Authority - **World Meteorological Organization (WMO)**
- Indian Ocean Region - **Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand** contribute to naming cyclones that occur in this region.

Cyclones in India

- **Bi-annual Cyclone Season** - March to May and October to December
- Recent Cyclones - **Tauktae, Vayu, Nisarga and Mekanu** (in Arabian Sea) and **Asani, Amphan, Fani, Nivar, Bulbul, Titli, Yaas and Sitrang** (in Bay of Bengal)

Note

- Cyclones in the Bay of Bengal (BOB) are relatively **more frequent and intense than those of the Arabian Sea**.
 - The Bay of Bengal typically sees multiple cyclonic events during the tropical cyclone season, which is primarily from April to December.
- The BOB usually has **higher sea surface temperatures**, especially during the pre-monsoon and post-monsoon seasons, providing the **necessary energy and moisture for cyclone formation** and intensification.
- The convergence of winds in the BOB, combined with the **Coriolis Force** (resulting from the Earth's rotation), creates an **environment suitable for cyclone genesis**. These converging winds **form areas of low pressure**, which can develop into tropical disturbances and cyclones.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. Consider the following statements: (2020)

1. Jet streams occur in the Northern Hemisphere only.
2. Only some cyclones develop an eye.
3. The temperature inside the eye of a cyclone is nearly 10°C lesser than that of the surroundings.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 and 3 only
(c) 2 only
(d) 1 and 3 only

Ans: (c)

Q. In the South Atlantic and South-Eastern Pacific regions in tropical latitudes, cyclone does not originate. What is the reason? (2015)

- (a) Sea surface temperatures are low
(b) Inter-Tropical Convergence Zone seldom occurs
(c) Coriolis force is too weak
(d) Absence of land in those regions

Ans: (b)

Mains:

Q. Tropical cyclones are largely confined to the South China Sea, Bay of Bengal and Gulf of Mexico. Why? (2014)

Dandeli Forest

Source: DTE

Why in News?

The Dandeli forest in Karnataka's Uttara Kannada district, known for its diverse wildlife and ecosystem, faces substantial environmental shifts due to changing climate patterns and human interventions.

What are the Key Points Related to Dandeli Forest?

- Dandeli forest is located in the Uttara Kannada district of Karnataka and is part of the Western Ghats, a globally recognized **biodiversity hotspot**.
- The forest is known **for its rich biodiversity**, including a diverse range of flora and fauna, making

it an important wildlife habitat.

- The **Kali Tiger Reserve** is a protected area **adjacent to the Dandeli Forest**.
 - The Tiger Reserve comprises two important protected areas of the region viz., **Dandeli Wildlife Sanctuary and Anshi National Park**.

What are the Concerns Related to the Dandeli Forest Ecosystem?

- **Impact of Climate Change:**
 - Changing rainfall patterns and rising temperatures due to climate change have **led to alterations in the forest ecosystem** and a decrease in grasses in recent years.
- **Invasive Species - Eupatorium Weed:**
 - The invasive eupatorium weed is replacing native grasses in the forest undergrowth, **impacting herbivores** as it is not a preferred food source and is susceptible to fires.
- **Historical Changes:**
 - Historical changes, including forest transformations during the colonial era, have affected the forest's character, changing it from semi-evergreen to moist deciduous forests.
- **Forest Fires and Environmental Impact:**
 - The suppression of controlled fires (**Slash and Burn**) during the British era and the introduction of non-native eupatorium weed have led to uncontrolled forest fires, affecting the forest ecosystem.
- **Impact on Herbivores and Predators:**
 - Decreased grasses have impacted the herbivore population, influencing the prey base for predators like leopards and tigers, resulting in increased conflicts with humans and predation on local cattle.

Conclusion

- Addressing these evolving environmental challenges necessitates urgent and sustainable conservation efforts.
- Adaptive strategies must be formulated to mitigate **the impacts of climate change on ecosystems** and the communities dependent on them.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. From the ecological point of view, which one of the following assumes importance in being a good link between the Eastern Ghats and the Western Ghats? (2017)

- (a) Sathyamangalam Tiger Reserve
- (b) Nallamala Forest
- (c) Nagarhole National Park
- (d) Seshachalam Biosphere Reserve

Ans: (a)

Q. Which one of the following National Parks has a climate that varies from tropical to subtropical, temperate and arctic? (2015)

- (a) Khangchendzonga National Park
- (b) Nandadevi National Park
- (c) Neora Valley National Park
- (d) Namdapha National Park

Ans: (d)

Q. Which of the following Protected Areas are located in Cauvery basin? (2020)

1. Nagarhole National Park
2. Papikonda National Park
3. Sathyamangalam Tiger Reserve
4. Wayanad Wildlife Sanctuary

Select the correct answer using the code given below:

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

Ans: (c)

India-Maldives Relations

For Prelims: [Maldives](#), [Belt and Road Initiative \(BRI\)](#), [Indian-Ocean](#), [China](#), [Greater Male Connectivity Project](#).

For Mains: Strategic Importance of Maldives for India in Indian Ocean to contain China's anti-India posturing.

Source: [IE](#)

Why in News?

[Maldives](#), located to the south of India, in the [Indian Ocean](#), saw the election of a Pro-China candidate as the next president of the nation, which allegedly raises concern for India in recent times.

- Historically, Maldives had an Executive Presidency system since 1968, transitioning to a multi-party democracy in 2008. **No incumbent president has been re-elected since then**, which is concerning for India this time.



Note

Maldives' electoral system is similar to France, where the winner has to secure more than 50% of votes. If no one crosses the mark in the first round, in the second round, the top two candidates go head to head.

How has India's Relations with Maldives been?

▪ Security Partnership:

- Defense cooperation extends to the areas of Joint Exercises - "[Ekuverin](#)", "Dosti", "Ekatha" and "Operation Shield" (begun in 2021).
- India provides the largest number of **training opportunities for Maldivian National Defence Force (MNDF)**, meeting around 70% of their defense training requirements.

▪ Rehabilitation Centre:

- Signing of contract for the **Addu reclamation and shore protection project**.
- A drug detoxification and rehabilitation centre in Addu built with Indian assistance.
- The centre is one of 20 high impact community development projects being implemented by India in areas such as [healthcare](#), [education](#), [fisheries](#), [tourism](#), [sports](#) and [culture](#).

▪ Economic Cooperation:

- Tourism is the mainstay of Maldivian economy. The country is now a major tourist destination for some Indians and a job destination for others.
- In August 2021, **Afcons, an Indian company, signed a contract for the largest-ever infrastructure project** in Maldives which is the [Greater Male Connectivity Project \(GMCP\)](#).
- India emerged as Maldives' 3rd largest trade partner in 2021.
- A Bilateral USD Currency Swap Agreement between RBI and Maldives Monetary Authority was signed on 22nd July 2019.
- The India-Maldives relationship suffered a setback when Maldives entered into a [Free-Trade Agreement \(FTA\)](#) with China in 2017.

▪ Infrastructure Projects:

- Hanimaadhoo International Airport Development project under an **Indian credit line will add a brand-new terminal to cater to 1.3 million** passengers a year.
- In 2022, the National College for Policing and Law Enforcement (NCPL) was inaugurated

by India's External Affairs Minister.

- NCPLE is the largest grant **project executed by India in Maldives.**

▪ **Greater Male Connectivity Project:**

- It will consist of a 6.74 km-long bridge and causeway link between Male and nearby islands of Villingli, Gulhifalhu and Thilafushi. It will use renewable energy.
 - **The project is funded by a grant of USD 100 million and a [Line of Credit \(LOC\)](#) of USD 400 million from India.**
- It is not only the biggest project India is doing in the Maldives but also the biggest infrastructure project in the Maldives overall.

Different Operations in Maldives

- **Operation Cactus 1988:** Under **Operation Cactus** the Indian Armed Forces have helped the government of Maldives in the neutralization of the coup attempt.
- **Operation Neer 2014:** Under **Operation Neer** India supplied drinking water to Maldives to deal with the drinking water crisis.
- **Operation Sanjeevani: India supplied 6.2 tonnes of essential medicines to Maldives, under Operation Sanjeevani** as assistance in the fight against [COVID 19](#).

What is the Issue of China in India-Maldives Relations?

- **Chinese Infrastructure Investments:**
 - Maldives, like many other countries in the Indian Ocean region, has been a recipient of Chinese infrastructure investments.
 - Maldives have massive Chinese investment and became a participant in China's [Belt and Road Initiative \(BRI\)](#). China funded and built various projects in Maldives, including the development of ports, airports, bridges, and other critical infrastructure as part of the ["String of the Pearls"](#) initiative.
- **Shift in Alliances:**
 - The pro-China stance led to a shift in Maldives' traditional foreign policy, which had typically been closer to India. This shift created apprehensions in India about China's growing influence in its immediate neighborhood and the potential strategic implications.
- **India's Concerns:**
 - India has expressed concerns about China's growing presence in the **Indian Ocean region**, particularly in countries like Sri Lanka, Pakistan, and Maldives. The development of Chinese-controlled ports and military facilities in these areas has been seen as a challenge to India's strategic interests and regional security.
- **India's Countermeasures:**
 - India has responded by intensifying its diplomatic and strategic engagement with Maldives and other Indian Ocean nations. It has provided economic assistance, undertaken infrastructure projects, and expanded defense cooperation to strengthen its influence in the region.
 - India's ["Neighborhood First"](#) policy aims to counterbalance China's increasing presence.
- **Political Developments:**
 - With the election of President Ibrahim Mohamed Solih in 2018, who is seen as more inclined towards India, **there has been a shift in Maldives' foreign policy back towards India**. Solih's government has sought to balance relations between India and China while maintaining traditional ties with India.
- **Strategic Importance:**
 - Maldives' strategic location in the Indian Ocean, along key maritime routes, continues to make it strategically significant for both India and China. As a result, both countries are likely to closely monitor developments in Maldives and vie for influence in these regions.

Geography of Maldives

- **Maldives, a Toll Gate in the Indian Ocean:** Located at the southern and northern parts of this

island chain lies the **two important sea lanes of communication (SLOCs)**.

- These SLOCs are critical for maritime **trade flow between the Gulf of Aden and Gulf of Hormuz in West Asia and the Strait of Malacca in Southeast Asia.**

- **Physical geography primarily consists of [Coral Reefs](#) and [Atolls](#)** and most of the area is under **[Exclusive Economic Zones \(EEZs\)](#)**
- Maldives primarily consists of an archipelago of low lying islands, which has been threatened due to rising sea rise.
- **Eight Degree Channel** separates Indian Minicoy (part of Lakshadweep Islands) from that of Maldives.

Way Forward

- India must **play a key role within Indo-Pacific security space** to ensure regional security in South Asia and surrounding maritime boundaries.
 - The **Indo-Pacific security space** has been developed as a response to the growth of extra-regional powers (particularly China's) in India's maritime sphere of influence.
- At present, the **'India Out' campaign has support from a limited population** but this cannot be taken for granted by the Indian government.
 - If the **issues raised by the supporters of the 'India Out' are not handled carefully**, the domestic political situation in the Maldives may set ripples in India's currently favorable relationship with the country.
- India should adopt an accommodative stance in keeping with its age old tradition of promoting multi-polar and rule-based world order with respect to its neighbors.
- **Project Mausam** should provide sufficient space for Maldives to get benefits out of it and boost its economic and infrastructural reliance on India.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q. Which one of the following pairs of islands is separated from each other by the 'Ten Degree Channel'? (2014)

- (a) Andaman and Nicobar
- (b) Nicobar and Sumatra
- (c) Maldives and Lakshadweep
- (d) Sumatra and Java

Ans: (a)

Mains:

Q 1. What do you understand by 'The String of Pearls'? How does it impact India? Briefly outline the steps taken by India to counter this. **(2013)**

Q 2. Discuss the political developments in the Maldives in the last two years. Should they be of any cause for concern to India? **(2013)**

Rapid Fire Current Affairs

Indian Air Force Day 2023



- **Indian Air Force Day** is celebrated on **8th October every year** to commemorate the establishment of the **Royal Indian Air Force on 8th October 1932**.
 - The IAF unveiled its **new ensign during the 91st IAF Day celebrations**. The new ensign prominently displays the **IAF crest in the top right corner**, along with the **national flag in the upper left canton** and the IAF tri-colour roundel in the lower right. This design was officially adopted in 1951.
- The theme for Indian Air Force Day 2023 is **“IAF - Airpower Beyond Boundaries.”**
- The Motto of the IAF is **“Touch the sky with Glory”** has been taken from the eleventh chapter of the **Bhagavad Gita**.
- Till now, IAF has fought four conflicts with **Pakistan in 1947-1948, 1965, The Bangladesh Liberation War (1971) and 1999 (Kargil War), and Operation Meghdoot.**

Read more: [Indian Air Force Day](#)

Sixth Basic Taste

The traditional five basic tastes, such as **sweet, sour, salty, bitter, and umami**, have been part of our understanding of taste for years. However, recent scientific research has unveiled evidence of a **sixth basic taste sensation**.

- A recent study published in **Nature Communications** reveals the existence of a sixth basic taste.
- This new taste is triggered by **ammonium chloride** and activates the **same protein receptor responsible for signaling sour taste**.
- Research identified the **protein called OTOP1** as the one responsible for detecting sour taste.
 - OTOP1 is situated within **cell membranes and forms a channel for hydrogen ions moving into the cell**.
- To validate their findings, scientists used a technique that measures electrical conductivity, simulating nerve signal conduction.
 - Normal mouse **taste cells responded to ammonium chloride** with increased action potentials. Genetically **engineered mice lacking OTOP1 had no response**. This confirmed their hypothesis that OTOP1 responds to the salt, generating an **electrical signal in taste bud cells**.

World Dyslexia Day

World Dyslexia Day, celebrated annually on 8th October, sheds light on the challenges faced by individuals with dyslexia. Also, the Dyslexia awareness week is celebrated annually from **2nd to 8th October**.

- Dyslexia is a **specific learning disorder** that primarily affects a person's ability to **read, write, and spell accurately**.
- It is characterized by difficulties in processing language-related tasks, including recognizing and

decoding written words. However, **Dyslexia is not related to intelligence.**

- **Theme for 2023: Uniquely You**

World Cerebral Palsy Day

World Cerebral Palsy Day, observed globally on **6th October**, serves as a platform to raise awareness, provide support, and advocate for greater understanding of cerebral palsy (CP) and its impact.

- **Cerebral palsy (CP)** is a group of neurological disorders that affect **movement, muscle tone, and coordination**.
 - It is caused by **damage to the developing brain**, before, during, or shortly after birth.
 - People with CP may have difficulties with **motor skills, muscle control, and balance, which can vary from mild to severe.**
- It is also recognised as a disability under the [Rights of Persons with Disabilities Act, 2016](#).
- **Theme for 2023: "Together Stronger"**

Navigating the Complexities of Publicity Rights

For Prelims: Publicity Rights, [Deepfake Technology](#), Injunction, Freedom of Speech and Expression.

For Mains: Arguments in Favour and Against Publicity Rights

[Source: IE](#)

Why in News?

Recently, the [Delhi High Court](#) has issued an interim order, preventing 16 entities from misusing a Bollywood actor's persona, including his **name, image, voice, and likeness, for unauthorized commercial gain.**

- This case marks the first instance in India where **publicity rights are being examined** to address concerns related to image distortion and circulation.

What are Publicity Rights?

- **About:**
 - Publicity rights are a legal concept that protects an individual's right to control and profit from the **commercial use of their name, image, likeness, or other aspects of their identity.**
 - These rights are designed to **prevent others from using a person's identity for commercial purposes** without their permission.
 - However, currently there is **no statutory provision in India** prescribing the duration of the right of publicity.
- **Arguments in Favour:**
 - **Protection of Personal Identity:** Publicity rights are essential for protecting an individual's personal identity and ensuring that **they have control over how their name and likeness are used for commercial purposes.**
 - It is significant in the era of AI-generated [deep fakes](#) and **synthetic media.** These technologies can create **highly convincing videos and images that make it appear as though a celebrity endorses or participates** in activities they have

not.

- This protection helps **individuals maintain their dignity and privacy.**
- **Economic Incentive:** Publicity rights provide a **financial incentive for individuals**, particularly celebrities, to invest in their public persona and fame.
 - This can encourage people to pursue careers in fields like entertainment, sports, and endorsements, benefiting the economy as a whole.
- **Clarity and Accountability:** Publicity rights create a clear framework for determining **when the unauthorized use of a person's identity constitutes a violation.** This legal clarity is essential for resolving disputes and ensuring accountability.
- **Protection of Consumers:** Publicity rights can **protect consumers from deceptive practices** by ensuring that they are not misled into believing that a product or service is endorsed by a celebrity when it is not.
 - This helps maintain trust in advertising and endorsements.
- **Arguments Against Publicity Rights:**
 - **Freedom of Expression:** Publicity rights can sometimes be seen as **limiting freedom of expression and speech.** They may restrict the use of an individual's image or likeness in various creative, artistic, or critical works, even when there is no intent to mislead or harm.
 - **Overcompensation of Celebrities:** Critics argue that many celebrities are already **highly compensated for their work, endorsements, and appearances.**
 - Extending publicity rights can be seen as a form of double-dipping or providing excessive financial benefits to already wealthy individuals.
 - **Complexity and Lack of Clarity:** The application of publicity rights can be complex, leading to **legal disputes and uncertainty.**
 - It can be challenging to determine when the use of a person's identity crosses the line into a violation, potentially stifling legitimate uses.
 - Also, in India, **publicity rights are transferable, often to corporations.** Expanding these rights excessively could grant celebrities and corporations undue control over public imagery and cultural products.

Way Forward

- **Clarify and Harmonize Laws:** To strike a balance between **protecting individuals' rights and fostering creativity**, jurisdictions should clarify and harmonize the publicity rights.
 - This can include **defining the scope and duration of these rights**, as well as establishing **clear guidelines for what constitutes infringement.**
- **Tailored Remedies:** Emphasize the need for a **more nuanced approach to remedies.** Courts can carefully consider the specific nature and impact of each use and tailor remedies accordingly.
 - **Instead of blanket injunctions,** courts can impose **remedies that address the harm caused while allowing legitimate forms of expression to continue.**
- **AI Regulation:** Develop and enforce regulations **specifically targeting AI-generated deep fakes and synthetic media.**
 - This can include **requirements for watermarking or other forms of labeling** to indicate AI-generated content.
 - Such regulations should also be **designed to minimize harm** without unduly restricting artistic and creative expression.