

GOVERNANCE
Destination Northeast India

Recently, a seven-day cultural festival of the northeast as part of the celebrations of 75 years of Independence under the Azadi Ka Amrut Mahotsav programme concluded at the National Museum, Delhi. It is celebrating the rich heritage of North East India, under the Ministry of Development of North Eastern Region & North Eastern Council (NEC)'s initiative titled "Destination North-East India".

Key Points

Aim: To bring the rest of India closer to North East (NE) India. It holds a special presentation of art and craft, textiles, ethnic products, tourism promotion etc. of the eight northeastern states.

Organisations Involved:

- **Ministry of Development of North-East Region.**
- **North Eastern Council (NEC):** It is the nodal agency for the economic and social development of the NE Region which consists of the eight States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. It was constituted in 1971 by an Act of Parliament.
- **National Museum:** The blueprint for establishing the National Museum in Delhi was prepared by the Maurice Gwyer Committee in May 1946.
 1. It was initially looked after by the Director General of Archaeology until 1957, when the Ministry of Education declared it a separate institution and placed it under its own direct control.
 2. At present, the National Museum is under the administrative control of the Ministry of Culture.

Importance of NE Region

- **Strategic Location:** The NER is strategically located with access to the traditional domestic market of eastern India, along with proximity to the major states in the east and adjacent countries such as Bangladesh and Myanmar.
- **Links with Southeast Asia:** With ASEAN engagement becoming a central pillar of India's foreign policy direction, NE states play an important role as the physical bridge between India and Southeast Asia. The India's Act East Policy places the northeastern states on the territorial frontier of India's eastward engagement.
- **Economic Significance:** The NER has immense natural resources, accounting for around 34% of the country's water resources and almost 40% of India's hydropower potential. Sikkim is India's first organic state.
- **Tourism Potential:** Northeast of India is home to many wildlife sanctuaries like Kaziranga National Park famous for the one horned rhinoceros, Manas National Park, Nameri, Orang, Dibru Saikhowa in Assam, Namdapha in Arunachal Pradesh, Balpakram in Meghalaya, Keibul Lamjao in Manipur, Intanki in Nagaland, Khangchendzonga in Sikkim.
- **Cultural Significance:** Tribes in NER have their own culture. Popular festivals include Hornbill Festival of Nagaland, Pang Lhabsol of Sikkim, etc.

Government Initiatives for NE Region

- **Ministry of Development of North Eastern Region (DoNER):** A Department of Development of North Eastern Region (DoNER) was established in 2001. It was elevated to a full ministry in 2004.
- **Infrastructure Related Initiatives:**
 1. Under Bharatmala Pariyojana (BMP), road stretches aggregating to about 5,301 km in NER have been approved for improvement.
 2. The North East has been kept as a priority area under RCS-UDAN (to make flying more affordable).
- **Connectivity Projects:** Kaladan Multi-Modal Transit Project (Myanmar) and Bangladesh-China-India-Myanmar (BCIM) Corridor.
- **For Promoting Tourism:** Under the Swadesh Darshan Scheme of the Ministry of Tourism, projects worth Rs.1400.03 crore have been sanctioned for the NER in the last five years.
- **Mission Purvodaya:** Purvodaya in the steel sector is aimed at driving accelerated development of Eastern India through the establishment of an integrated steel hub. The Integrated Steel Hub, encompassing Odisha, Jharkhand, Chhattisgarh, West Bengal and Northern Andhra Pradesh, would serve as a torchbearer for socio-economic growth of Eastern India.
- **North-East Industrial Development Scheme (NEIDS):** In order to promote employment in the North East States, the Government is incentivizing primarily the MSME Sector through this scheme.

- **The National Bamboo Mission** has a special significance for the Northeast.
- **North Eastern Region Vision 2020:** The document provides an overarching framework for the development of the NE Region to bring it at par with other developed regions under which different Ministries, including the Ministry of DoNER have undertaken various initiatives.
- **Digital North East Vision 2022:** It emphasises leveraging digital technologies to transform lives of people of the north east and enhance the ease of living.

INTERNATIONAL RELATION

China Delivers Largest Warship to Pakistan: PNS Tughril

Recently, China handed over the first Type 054A/P frigate (warship) to Pakistan. It is named the PNS Tughril. The PNS Tughril is the first hull of four Type 054 frigates being constructed for the Pakistan Navy.

Key Points

Features:

- The ship is a technologically advanced and highly capable platform with enormous surface-to-surface, surface-to-air and underwater firepower, besides extensive surveillance potentials.
- This warship has world-class stealth capability and can easily dodge any radar.
- It also has long-range missiles and a state-of-the-art cannon capable of firing multiple rounds in a minute.
- The warship is fitted with a state-of-the-art Battle Management System (BMS), which will increase the fighting capability of the Pakistan Navy manifold. BMS basically helps communicate between the radar and the interceptor missile.

Concerns for India:

- It will strengthen Pakistan Navy's capabilities to respond to maritime challenges to ensure seaward defence in the Indian Ocean region. It will form the mainstay of the Pakistan Navy fleet while bolstering the Pakistan Navy's maritime defence capabilities.
- Besides the advanced naval ships, China also partners with the Pakistan Air Force to build JF-17 Thunder fighter aircraft.
- Besides building its first military base in Djibouti in the Horn of Africa in the Indian Ocean, China has acquired Pakistan's Gwadar port in the Arabian Sea which connects with China's Xinjiang province by land in the USD 60 billion China Pakistan Economic Corridor (CPEC). China is also developing Sri Lanka's Hambantota port after it acquired it on 99 years' lease.
- The modernisation of the Pakistan Navy coupled with the acquisition of the naval bases was expected to shore up the Chinese Navy's presence in the Indian Ocean and the Arabian Sea.

India's Rising Profile in the Indian Ocean Region

- **Various Agreements with Littoral Nations:** India has negotiated agreements with several states in the littoral IOR to obtain military access to their bases. Such agreements, including access to Indonesia's strategically-located deep-sea Sabang port and Oman's Duqm port, enhance New Delhi's geopolitical positioning as it looks to counter China's "string of pearls."
- **Engagement Outside IOR:** India has engaged with powers outside of the IOR, deepening cooperation with France and the United States through logistics agreements. This grants India access to port facilities at the US base on Diego Garcia (southernmost member of the Chagos Archipelago, in the central Indian Ocean) and the French base on Reunion Island.
- **Quadrilateral Dialogue:** The United States engages with India through the informal Quadrilateral Security Dialogue, or the "Quad," which also includes Australia and Japan.
- **Paris-New Delhi-Canberra Axis:** France has called for the creation of a "Paris-New Delhi-Canberra" axis in the Indo-Pacific, underscoring India's growing influence on geopolitics in the IOR.
- **Information Fusion Centre for the Indian Ocean Region (IFC-IOR):** IFC-IOR is established with the vision of strengthening maritime security in the region, by building a common coherent maritime situation picture and acting as a maritime information hub for the region.
- **Maritime Exercises:** India concluded an edition of its "Malabar" naval exercise, which included the US, Japan and Australia. In 2018, India also held multilateral naval exercises called "Milan" in the Andaman and Nicobar Islands with 16 other countries and in the Rim of the Pacific Exercise (RIMPAC), sailing alongside the Australian, Japanese, and US naval forces.

- **Naval Ships:** While India already has one commissioned carrier, the INS Vikramaditya, and plans to commission a second, the INS Vikrant, it has outlined an ambitious plan to develop a class of aircraft carriers to follow the Vikrant. India's navy has further outlined plans to procure 57 carrier-based fighter jets, as well as modernize its submarine fleet with a new Arihant -class of nuclear-powered attack vessels.

ENVIRONMENT

Climate Change & Locust Infestations

Infestation of desert locusts, which has plagued a vast swathe from eastern Africa to India in recent years, has been closely linked to climate change. In this context, the Global Landscapes Forum Climate Hybrid Conference has proposed that plans to mitigate climate change must include action against pests and diseases.

- The conference was recently held alongside the 26th Conference of Parties (CoP26) to the United Nations Framework Convention on Climate Change.

Key Points

Locust Attack and its Impact:

- **About:** The desert locust (*Schistocerca gregaria*) is a short-horned grasshopper.
 1. Harmless when solitary, locusts undergo a behavioural change when their population builds up rapidly.
 2. They enter the 'gregarious phase' by forming huge swarms that can travel up to 150 km per day, eating up every bit of greenery on their way.
- **Impact:** Locust infestations can harm livelihoods and be a threat to regional investments in ensuring food security.
 1. According to the World Bank: In East Africa and Yemen alone, damages and losses in 2020 due to locusts could amount to as much as \$8.5 billion.
 2. According to the World Food Program: The long-term response and recovery costs could top \$1 billion if swarm growth is not controlled.

Locust Breeding and Linkage With Climate Change:

- **Affected Area:** Locusts have been a bane especially to farmers in several countries, including India, Pakistan and Iran.
- **Effect of Climate Change:** Change in cyclonic patterns over the Arabian Sea is behind the locust invasions in east Africa, west and south Asia, in 2020.
 1. Unusual rainfall in Iran helped in their breeding.
 2. Locusts are known to be passive flyers and generally follow the wind.
 3. Their movement has been aided by westerly winds, which were further strengthened by the low-pressure area created by Cyclone Amphan (2019) in the Bay of Bengal.

Pesticide is Not the Appropriate Solution:

- It said that heavy use of a broad-spectrum pesticide may slow down the desert locust invasion but they also exert significant external costs on the environment and human health.
 1. They are a threat to pollinators and wildlife.
 2. A broad-spectrum pesticide is a powerful pesticide that targets entire groups or species of organisms that are commonly harmful to plants.
- According to the Food and Agriculture Organization (FAO), by March 2021, 1.8 million litres of pesticides were used to control locusts in East Africa. This may increase to over two million litres by the end of 2021. Organophosphate pesticides such as Malathion and Chlorpyrifos, for instance, are highly toxic to humans and animals.

Way Forward

- **Early Warning System:** Satellite and weather data, along with field observations, can be used for building powerful predictive models on breeding sites.
- **True Cost Accounting:** Counting the environmental and human costs through True Cost Accounting. True Cost Accounting is a new type of bookkeeping that does not just look at the usual financial values within a company, but also calculates the impacts on natural and social capital.
- **Developing an Efficient Governance Model:** Governing the locusts crisis may also provide useful lessons for the agri-food system. There is a need to raise awareness amongst farmers and local communities as well as involve them in decision making.
- **Mobilising Funds for Research:** It is important to fund research on the biopesticide sector which remains extremely underfunded.

1. The organisations responsible for preventing locust attacks face tremendous financial hurdles.
2. In February 2020, \$138 million was required by FAO to combat locusts outbreaks in East Africa. The organisation received only \$33 million from donors.

SCIENCE & TECHNOLOGY**Double Asteroid Redirection Test (DART) Mission: NASA**

NASA will launch its first planetary defense test mission named the Double Asteroid Redirection Test (DART). The DART spacecraft will be launched on a SpaceX Falcon 9 rocket.

Key Points**Aim of the Mission:**

- The mission is to test the new technology to be prepared in case an asteroid heads towards Earth in the future.
 - The aim is to test the newly developed technology that would allow a spacecraft to crash into an asteroid and change its course.
1. After the mission has collided with the asteroid, scientists will study its impact on the trajectory of the asteroid with a range of telescopes deployed on different regions of the planet.
 2. DART will be the first demonstration of the kinetic impactor technique to change the motion of an asteroid in space.
- The target of the spacecraft is a small moonlet called Dimorphos (Greek for “two forms”). Dimorphos orbits a larger asteroid named Didymos (Greek for “twin”).
 - It is a suicide mission and the spacecraft will be completely destroyed.
 - The collision is expected to take place between 26th September and 1st October, 2022.

About the Mission:

- DART is a low-cost spacecraft.
- It has two solar arrays and uses hydrazine propellant for maneuvering the spacecraft.
- It also carries about 10 kg of xenon which will be used to demonstrate the agency’s new thrusters called NASA Evolutionary Xenon Thruster–Commercial (NEXT-C) in space. NEXT-C gridded ion thruster system provides a combination of performance and spacecraft integration capabilities that make it uniquely suited for deep space robotic missions.
- The spacecraft carries a high-resolution imager called Didymos Reconnaissance and Asteroid Camera for Optical Navigation (DRACO). Images from DRACO will be sent to Earth in real-time and will help study the impact site and surface of Dimorphos (the target asteroid).
- DART will also carry a small satellite or CubeSat named LICIA Cube (Light Italian CubeSat for Imaging of Asteroids). LICIA Cube is expected to capture images of the impact and the impact crater formed as a result of the collision.

Reason for Choosing Dimorphos:

- Didymos is a perfect system for the test mission because it is an eclipsing binary which means it has a moonlet that regularly orbits the asteroid and which can be seen when it passes in front of the main asteroid.
- Earth-based telescopes can study this variation in brightness to understand how long it takes Dimorphos to orbit Didymos.

IMPORTANT FACTS FOR PRELIM**US Joins International Solar Alliance**

Recently, the United States of America has become the 101st member country to join the International Solar Alliance (ISA). Earlier, the fourth general assembly of ISA was held.

Key Points**About:**

- The ISA is an intergovernmental treaty-based organisation with a global mandate to catalyse solar growth by helping to reduce the cost of financing and technology.
- ISA is the nodal agency for implementing One Sun One World One Grid (OSOWOG), which seeks to transfer solar power generated in one region to feed the electricity demands of others.

Launch:

- It is an Indian initiative that was launched by the Prime Minister of India and the President of France on 30th November 2015 in Paris, France on the side-lines of the UNFCCC Conference of the Parties (COP-21), with 121 solar resource rich countries lying fully or partially between the tropic of Cancer and tropic of Capricorn as prospective members.

Members: 101 members, after being joined by the US.

Headquarters:The Headquarters is in India with its Interim Secretariat being set up in Gurugram.

Objectives:To collectively address key common challenges to the scaling up of solar energy in ISA member countries.

New ISA Programmes:New ISA programmes have been launched on management of solar PV panels & battery usage waste and solar hydrogen programme.The new Hydrogen initiative is aimed at enabling the use of solar electricity to produce hydrogen at a more affordable rate than what is available currently (USD 5 per KG), by bringing it down to USD 2 per KG.

DAILY ANSWER WRITING PRACTICE

Qns. Ensuring price stability by monetary authorities is a necessary condition for the economy to sustain high growth. Analyse (250 words)

Ans:

Introduction

The headline inflation remained above the upper threshold of the monetary policy committee's inflation targeting framework. While much of the recent spurt in inflation stems from supply-side disruptions owing to the imposition of restrictions on economic activities, it is likely that inflation may prove to be sticky on the downside, even as restrictions ease. With a significant section of the eligible population likely to be vaccinated by the second half of the year, household demand, especially for the contact intensive services, is likely to firm up, which along with higher commodity prices, could push up inflation.

Body

Issues of price instability on growth

- **Continuing high inflation:** While the rise in prices has so far been attributed to supply disturbances due to the Covid-19 lockdowns, economists now worry that there are other reasons contributing to the trend, and it might become challenging for the RBI to control.
- Price stability is vital to economies because price levels determine inflation and deflation. Severe, rapid, or unexpected inflation rates and deflation rates are major threats to economic growth because they alter the value of money.
- High inflation causes wages, savings, and purchasing power to decrease in value. During times of severe inflation, consumers become frightened and aggregate demand declines.
- Such inflation causes businesses to lose out on profits and let employees go, compounding the public's fear.

Price stability for high economic growth :

Price stability means an economy can avoid severe inflation and severe deflation. This causes many significant benefits:

- **Improves price transparency.** With stable prices, consumers can recognize relative price changes without being confused by overall price changes. This means informed decision-making when they consume and invest.
- **Avoids arbitrary redistribution of wealth:** When unexpected inflation occurs, wealth is redistributed randomly, rather than based on merit or need: for instance, different goods' prices increase at different rates, which punishes certain businesses more than others, and creditors receive less in loan payments than they would have with low inflation, while debtors benefit from inflation. With price stability, this arbitrary redistribution of wealth is avoided.
- **Lowers risk premia:** A risk premium is the lowest return on investment a consumer needs in order to hold a risky asset rather than a risk-free one. If risk premia are high, it means consumers are unwilling to make risky investments, and economic activity slows. If risk premia are low, real interest rates are lower and consumers feel more comfortable with investment decisions, which leads to economic growth.
- **Strong economic confidence:** A reasonable price stability determines various factors such as Investment climate of the country, borrowing trends of businesses, ensure reasonable supply inputs of industries and also cost of agricultural produce.

Conclusion

Price stability is a win-win-win for growth, financial stability of nation and inflation. Growth need not, in fact, be a 'secondary' goal. A sense of continuity is critical, especially when India has experimented with the inflation targeting framework for just five years against a tumultuous experience with inflation. However, it is important that the range and target be reassessed independently without an inherent bias towards either growth or inflation.

DAILY QUIZ

Q1. Consider the following statements about Adi Shankaracharya:

1. He grew up in the Tamil culture, in a stable society during the rule of the Chola dynasty.
2. He was a disciple of the scholar Yadava Prakasa.
3. He consolidated the doctrine of Advaita Vedanta.

Which of the statements given above is/are correct?

- a. **3 only**
- b. 1 and 2 only
- c. 2 and 3 only
- d. 1, 2 and 3

Q2. Consider the following statements about Panthera pardus:

1. It is listed as vulnerable on the IUCN Red List.
2. It is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972.

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

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

Q3. Consider the following statements:

1. India's official leopard count has increased 63 per cent from 2014-2018.
2. The largest number of leopards have been estimated in Karnataka followed by Madhya Pradesh.

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

Q4. Which of the following statements are correct about the deposits of 'methane hydrate'?

1. Global warming might trigger the release of methane gas from these deposits.
2. Large deposits of 'methane hydrate' are found in Arctic Tundra and under the seafloor.
3. Methane in atmosphere oxidizes to carbon dioxide after a decade or two.

Select the correct answer using the code given below.

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. **1, 2 and 3**

Q5. Consider the following statements about International Energy Agency (IEA)

1. It is a Geneva-based autonomous intergovernmental organization established in the framework of the OECD in 1974 in the wake of the 1973 oil crisis.
2. It acts as a policy adviser to its member states, but also works with non-member countries, especially China, India, and Russia.

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