

**GOVERNANCE****Draft Blue Economy Policy**

Recently, the Ministry of Earth Sciences (MoES) has rolled out the draft Blue Economy policy, inviting suggestions and inputs from various stakeholders.

It is in line with the Government of India's Vision of New India by 2030.

**Key Points**

- The policy document highlighted the blue economy as one of the ten core dimensions for national growth.
- It emphasizes policies across several key sectors to achieve holistic growth of India's economy.

It recognizes the following seven thematic areas:

- National accounting framework for the blue economy and ocean governance.
- Coastal marine spatial planning and tourism.
- Marine fisheries, aquaculture, and fish processing.
- Manufacturing, emerging industries, trade, technology, services, and skill development.
- Logistics, infrastructure and shipping, including trans-shipments.
- Coastal and deep-sea mining and offshore energy.
- Security, strategic dimensions, and international engagement.

**Aims:**

- Enhance contribution of the blue economy to India's Gross Domestic Product (GDP).
- The blue economy, which consists of economic activities dependent on marine resources, comprises 4.1% of India's economy.
- Improve lives of coastal communities.
- Preserve marine biodiversity.
- Maintain the national security of marine areas and resources.

**Reason and Need for a Blue Economy Policy:****Vast Coastline:**

- With a coastline of nearly 7.5 thousand kilometers, India has a unique maritime position.
- Nine of its 28 states are coastal, and the nation's geography includes 1,382 islands.
- There are nearly 199 ports, including 12 major ports that handle approximately 1,400 million tons of cargo each year.

**Utilisation of Non-living Resources:**

- India's Exclusive Economic Zone of over 2 million square kilometers has a huge living and non-living resources with significant recoverable resources such as crude oil and natural gas.

**Sustenance of Coastal Communities:**

- The coastal economy sustains over 4 million fisherfolk and coastal communities.

**Other Related Initiatives by India:****Sagarmala Project:**

- The Sagarmala project is the strategic initiative for port-led development through the extensive use of IT enabled services for modernization of ports.
- It aims at developing Inland waterways and coastal shipping which will revolutionize maritime logistics, creating million new jobs, reducing logistics costs etc.
- It focuses on the development of coastal communities and people in the sustainable use of ocean resources, modern fishing techniques and coastal tourism.

**O-SMART:**

- India has an umbrella scheme by the name of O-SMART which aims at regulated use of oceans, marine resources for sustainable development.
- Integrated Coastal Zone Management:
- It focuses on conservation of coastal and marine resources, and improving livelihood opportunities for coastal communities etc.

**National Fisheries Policy :**

- India has a National Fisheries policy for promoting 'Blue Growth Initiative' which focus on sustainable utilization of fisheries wealth from the marine and other aquatic resources

**INDIAN ECONOMY****India Energy Outlook 2021: IEA**

Recently, the International Energy Agency (IEA) has released the India Energy Outlook 2021 Report which explores the opportunities and challenges ahead for India as it seeks to ensure reliable, affordable and sustainable energy for a growing population.

The India Energy Outlook 2021 is a new special report from the IEA's World Energy Outlook series.

### **Key Points**

#### **Third Largest Energy Consumer by 2030:**

- India will make up the biggest share of energy demand growth at 25% over the next two decades, as it overtakes the European Union as the world's third-biggest energy consumer by 2030.
- Presently, India is the fourth-largest global energy consumer behind China, the United States and the European Union.
- India's energy consumption is expected to nearly double as the nation's Gross Domestic Product (GDP) expands to an estimated USD 8.6 trillion by 2040 under its current national policy scenario.
- Prior to the global pandemic, India's energy demand was projected to increase by almost 50% between 2019 and 2030, but growth over this period is now closer to 35%.

#### **Industrialisation is a Major Driving Force:**

- Over the last three decades, India accounted for about 10% of World Growth in Industrial Value-added [in Purchasing Power Parity (PPP) terms].
- By 2040, India is set to account for almost 20% of Global Growth in Industrial value-added, and to lead global growth in industrial final energy consumption, especially in steelmaking.

#### **Reliance on Imports:**

- India's growing energy needs will make it more reliant on fossil fuel imports as its domestic oil and gas production has been stagnant for years despite government policies to promote petroleum exploration and production and renewable energy.
- Rising oil demand could double India's oil import bill to about USD 181 billion by 2030 and nearly treble it to USD 255 billion by 2040 compared with 2019.

#### **Oil Demand:**

- India's oil demand is seen rising by 74% to 8.7 million barrels per day by 2040 under the existing policies scenario.
- A five-fold increase in per capita car ownership will result in India leading the oil demand growth in the world.
- Its net dependence on oil imports - taking into account both the import of crude oil and the export of oil products - increases to more than 90% by 2040 from the current 75% as domestic consumption rises much more than production.

#### **Gas Demand:**

- India will become the fastest-growing market for Natural gas, with demand more than tripling by 2040.
- Natural gas import dependency increased from 20% in 2010 to almost 50% in 2019 and is set to grow further to more than 60% in 2040.

#### **Coal Demand:**

- Coal currently dominates India's electricity sector, accounting for over 70% of overall generation.
- Coal demand is seen rising to 772 million tonnes in 2040 from the current 590.
- Renewables Energy Resources Demand:
- India's share in the growth in renewable energy is the second-largest in the world, after China.

## **INDIAN HERITAGE AND CULTURE**

### **75 years of Shri Ram Chandra Mission**

The Prime Minister recently addressed the event organized to commemorate 75 years of Shri Ram Chandra Mission.

#### **Important value additions**

- Shri Ram Chandra Mission (SRCM) is a non-profit organization and a spiritual movement originating in India.
- It teaches the practice of "Sahaj Marg" or "Heartfulness Meditation".
- It was registered in 1945 by Ram Chandra of Shahjahanpur, Uttar Pradesh.

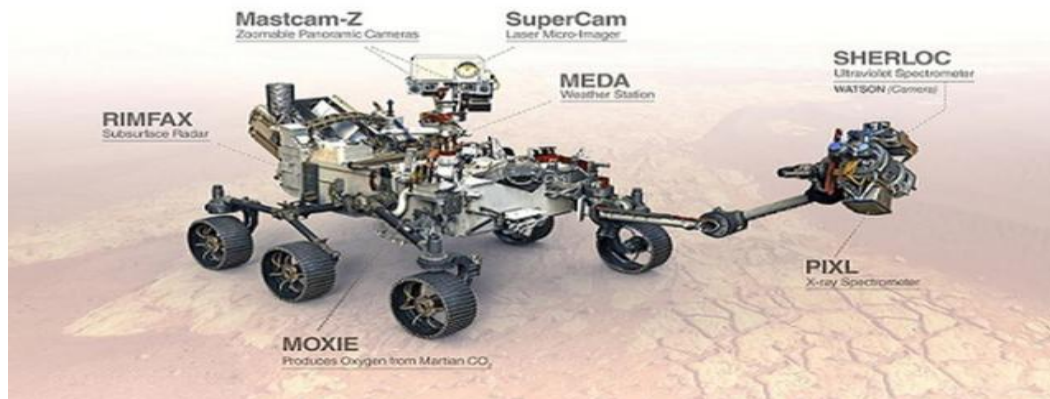
**Current headquarter:** Hyderabad, Telangana

- Sahaj Marg (The Natural Path) is a form of Raja Yoga.
- It is a meditation system involving meditation, cleaning, and prayer.

**SCIENCE AND TECHNOLOGY**

**NASA's Perseverance and China's Tianwen-1 set to land on Mars**

NASA's Perseverance and China's Tianwen-1 are set to land on Mars on February 18 and in May 2021 respectively.



**NASA's Perseverance Rover**

- It is the most sophisticated Mission.
- It is set to land at Jezero Crater, which was likely filled with water in the past.
- It is NASA's 4th generation, Mars Rover.
- Goal: To look for biosignatures in the dried-up lake bed at Jezero Crater.

**Tianwen-1**

- Tianwen-1 is the first mission to Mars from China.
- It carries an orbiter, a lander, and a rover.
- It will orbit Mars for a few months before attempting to land in May this year.

**DEFENCE AND SECURITY**

**E-Chhawani portal launched**

E-Chhawani portal and mobile app was launched recently.

Ministry: **Ministry of Defence**

**Key Points**

**Objective:** To provide online civic services to over 20 lakh residents of 62 Cantonment Boards across India.

Through the portal, the residents of cantonment areas will be able to avail basic services like renewal of leases, application for birth & death certificates, water & sewerage connections, etc.

**Developed by:** eGov Foundation, Bharat Electronics Limited (BEL), Directorate General Defence Estates (DGDE) and National Informatics Centre (NIC).

**NATIONAL DEVELOPMENTS**

**Enrolment module for TECHNOGRAHIS launched**

An Enrolment Module for TECHNOGRAHIS has been launched.

Ministry: **Ministry of Housing and Urban Affairs (MoHUA)**.

**Key Points**

- TECHNOGRAHIS are students from IITs, NITs, engineering, planning and architecture colleges, faculty members, academicians, and stakeholders.
- MoHUA is promoting six Light House Projects (LHPs) as Live Laboratories for transfer of technology to the field.
- The LHPs are model housing projects.
- About 1,000 houses at each location are being built with allied infrastructure facilities.
- Interested candidates can register themselves to visit these Live Laboratories in LHP sites for learning, consultation, generation of ideas and solutions, experimentation, innovation, and technical awareness.
- They will also get regular updates from the sites for information dissemination till the completion of the LHPs.

**BIODIVERSITY AND ENVIRONMENT****Pollution from Coal Burning: IEACCC**

A study by the International Energy Agency's Clean Coal Centre (IEACCC) has stated that coal burning is responsible for heavy air pollution in India.

- Recently, a Delhi-based think tank Centre for Science and Environment (CSE) has also discussed the measures to reduce carbon dioxide (CO<sub>2</sub>) footprints of India's coal-based power sector and cautioned the Union Ministry of Environment, Forest and Climate Change (MoEF&CC) against extending the deadline of meeting emission norms for coal-based thermal power plants in the country.

**Key Points****Pollution from Coal-Based Thermal Power Stations:**

- Coal-based thermal power stations contribute over half sulphur dioxide (SO<sub>2</sub>), 30% oxides of nitrogen (NO<sub>x</sub>), about 20% particulate matter (PM), etc.
- Persistent burning of coal in thermal power stations and a delay in implementation of latest carbon capture storage technology are among major reasons of air pollution in India.

**Suggestions:****Retirement of Old Fleet of Power Stations:**

- To limit pollution and improve the fleet efficiency by adopting clean coal technology.

**Launch More Ambitious Schemes:**

- The current energy efficiency schemes, including performance and achieve trade scheme, efficiency standards scheme and carbon pricing schemes, are not ambitious enough to drive significant improvement.

**Adopting Carbon Capture, Utilization, and Storage (CCUS):**

- It is equally important to reduce emissions. It suggested India to include it as a part of its climate commitment.
- CCUS is the process of capturing waste CO<sub>2</sub>, transporting it to a storage site and depositing it where it will not enter the atmosphere.

**Coal Burning and Pollution****Coal Formation:**

Formed deep underground over thousands of years of heat and pressure, coal is a carbon-rich black rock that releases energy when burned.

**Air Pollution:**

- When coal is burned, it releases a number of airborne toxins and pollutants.
- They include mercury, lead, sulfur dioxide, nitrogen oxides, particulates, and various other heavy metals.
- Health impacts can range from asthma and breathing difficulties, to brain damage, heart problems, cancer, neurological disorders, and premature death.

**Water Pollution:**

- The coal-fired power plants produce more than 100 million tons of coal ash every year.
- More than half of that waste ends up in ponds, lakes, landfills, and other sites where, over time, it can contaminate waterways and drinking water supplies.

**Climate Change:** Coal is a large contributor to Global Warming.

**Initiatives to Control Emissions from Power Plants:****Exploring CCUS:**

- India is exploring its potential, as a plant at the industrial port of Tamil Nadu's Tuticorin has begun capturing CO<sub>2</sub> from its own coal-powered boiler and using it to make baking soda.

**Emission Standard:**

- India has issued orders for thermal power plants to comply with emissions standards for installing Flue Gas Desulphurization (FGD) units that cut emissions of toxic sulphur dioxide.

**Graded Action Plan:**

The Ministry of Power has proposed a "graded action plan," whereby areas where plants are located would be graded according to the severity of pollution, with Region 1 referring to critically polluted areas, and Region 5 being the least polluted.

**IMPORTANT FACTS FOR PRELIM****Coelacanth**



Recently, a group of palaeontologists have discovered fossils of coelacanth, a giant fish regarded as an iconic example of a “living fossil.”

The discovered fossil of Coelacanth is believed to be 66 million years old belonging to the Cretaceous era.

**Key Points**



**About:**

- Coelacanths are elusive, deep-sea creatures, living in depths up to 2,300 feet below the surface.
- These were thought to have gone extinct with the dinosaurs 65 million years ago. But its discovery in 1938 started a debate about how this lobe-finned fish fits into the evolution of land animals.

**Two Species:**

There are only two known species of coelacanths: one that lives near the Comoros Islands off the east coast of Africa, and one found in the waters off Sulawesi, Indonesia.

**Living Fossil:**

- Living Fossil is an organism that has remained unchanged from earlier geologic times and whose close relatives are usually extinct. Other than Coelacanth, Horseshoe crab and ginkgo trees are examples of living fossils.
- However, in their new study, palaeontologists have found that Coelacanths gained 62 new genes through encounters with other species 10 million years ago. This suggests that they are actually evolving, albeit slowly.

**Protection Status:**

IUCN Status: Critically Endangered

Sulawesi Coelacanth is listed as ‘vulnerable’.

CITES Status: Appendix I

**DAILY ANSWER WRITING PRACTICE**

**Qns** What are some of the most striking and unique features of Indo-Islamic architecture. Illustrate.

**Ans:**

With the arrival of islamic rulers and subsequent conquest of Delhi throne by the 12th century, Indian architecture underwent a massive change. Though new elements were introduced majorly, the local architects retained certain flavours of the local architectural traditions as well. Thus a confluence of persian and Indian elements can be seen which is known as Indo-Islamic or Indo-Sarcenic architecture. It was introduced during Delhi sultanate period and evolved during the reign of Mughals

**Striking and unique features:**

- **Arches and Domes:** used which is known as ‘arcuade’ style of architecture
- replaced the traditional Trabeat style of architecture.
- **Minars:** are used around the mosques and the mausoleums.
- **Mortar:** used as a cementing agent in their constructions.
- **Natural Figurines:** were used. Human and Animal figures are avoided.
- Spaciousness, massiveness and breadth of buildings and structures.
- **Calligraphy:** used as a means of decoration as well as arabesque method which involved the use of geometrical ornamentation. Further, the decorations followed a symmetrical pattern.
- **Jaali work:** a feature allowing light into the structures.
- **Water:** pools in the premises of the building used for cooling, decorative and religious purposes.
- **Charbagh style of gardening:** in which a square block is divided into 4 adjacent identical gardens.
- **Foreshortening technique:** in the buildings, such that the inscriptions appear to be closer than it really is.
- **Pietra Dura and Mosaic designs:** using cut and fitted highly polished gems and stones.

**Some of the examples illustrating the same are:**

- **Delhi Sultanate:** Qutb Minar, Quwwat Ul Islam Mosque, Alai Darwaza, Lodi Gardens etc.,
- **Mughals:** Taj Mahal, Red fort, Fatehpur sikri etc.,
- **Deccan sultanate:** Gol Gumbaz, Char minar, Golconda fort etc.,
- **Provincial:** Adina Mosque, Atala Mosque etc.,

**Conclusion**

Architecturally, a mix of many techniques, stylised shapes and surface decorations evolved through a continuous amalgamation of architectural elements from the various styles. Indo Islamic Architecture flourished in entire India over time. Its influence could be seen in southern Indian structures like Mysore palace and in various buildings under British like Parliament, Victoria terminus etc.,

**DAILY QUIZ**

1. Which of the following law regulates and also sought to create a universally accessible adoption law for India?

- a) Hindu Adoption and Maintenance Act, 1956
- b) Immoral Traffic (Prevention) Act, 1986
- c) Juvenile Justice (Care and Protection of Children) Act, 2015**
- d) Central Adoption Resource Authority Act

2. Consider the following statement about 'oil and petroleum sector in India':

- 1. In 2019-20, India's total refinery capacity was 2nd largest in the world.
- 2. India imports 53% of its natural gas needs from foreign countries.
- 3. Kaveri – Godavari basin have good prospects of tight oil and tight gas.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 only
- c) 2 and 3 only**
- d) All of the Above

3. Which of the following sector do not get benefitted from the recently approved Production-Linked Incentive scheme?

- a) Pharmaceuticals
- b) White Goods
- c) Telecom
- d) Brown Goods**

4. Consider the following statement regarding 'India – Mauritius bilateral relation' –

- 1. The India-Mauritius Comprehensive Economic Cooperation and Partnership Agreement (CECPA) will be the first trade Agreement to be signed by India with a country in Africa.
- 2. India is the 1st largest import trading partner of Mauritius.

Which of the above statements is/are correct?

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

5. Consider the following statements about 'Animal Welfare Board of India (AWBI)' –

- 1. It is a statutory body established under Wildlife Protection Act, 1972.
- 2. It is under jurisdiction of Ministry of Environment, Forests and Climate change.

Which of the following statement is/are correct?

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