



Yojna IAS

C-32 NOIDA SECTOR-02
UTTAR PRADESH (201301)
CONTACT NO. +8595907569

CURRENT AFFAIRS



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Pulicat Lake

- Once again Pulicat Lake has been placed in the “Lake Threatened” category under the Ramsar Convention by the Global Nature Fund, an organization based in Germany.
- However, no proposal has been made by the government to include Pulicat Lake in the Montreux record. The Pulicat Lake is facing a variety of ecological hazards, so various environmentalists have called for it to be included in the Montreux record.

About Pulicat Lake

- Pulicat Lake is a unique reservoir located on the eastern coast of India and is spread across two states of Andhra Pradesh (84%) and Tamil Nadu (16%).
- Its water spread area becomes about 720 square kilometer during monsoon. The length of the lake is about 60 km, and its width varies from 200 m to 17.5 km.
- The Buckingham Canal on the eastern side of the lake flows in a north to south direction relative to Sriharikota Island. Since the construction of the canal, the problem of siltation and the construction of a railway line along the coast has made it gradually unusable.

Ramsar Convention

- In 1971, an important United Nations conference on wetlands was held in Ramsar, Iran.
- The Ramsar Convention is known as an international environmental treaty aimed at the conservation and appropriate use of wetlands, primarily through local, regional, national action and international cooperation, and aims to achieve the Sustainable Development Goals around the world makes a significant contribution.
- This conference plays an important role in awakening the world’s consciousness about the importance of protecting wetlands.

- Montrex Records is a voluntary mechanism under the Ramsar Convention. It has been created to identify such special wetlands of international importance, which are currently facing crisis.
- Specifically, the Montrex record is a register of listed Ramsar sites where changes in ecological status have occurred or are occurring or are likely to result from technological development, pollution or other human intervention.

Importance of Pulicat Lake

- The lake receives fresh or brackish water through flowing rivers and canals and seawater through inlet mouths connected to the Bay of Bengal.
- The lake has a spatial and Kalik or temporary salinity gradient. This slope helps in the creation of ecological niches full of diversity of different plants and animals.
- About one lakh people living in 200 villages around Pulicat Lake are directly dependent on the highly productive lagoon ecosystem with its rich fishery resources for their livelihood.
- Pulicat Lake is also a biodiversity hotspot. It provides shelter to many endemic and endangered species included in the IUCN Red Data Book, essential for the conservation of nature.
- It is an avian haven for many migratory birds and during the peak migration season there are about 250 species of birds, of which 50 are intercontinental species.

Emerging issues with over-exploitation of Pulicat Lake

- Mass destruction (and fragmentation) of mangrove ecosystems, and artificial conversion of wetlands for the purpose of commercial shrimp farming
- Over-exploitation of hydro-biological resources
- Inappropriate extraction activities (with effects on fauna)
- Deforestation and conversion of forests
- Pollution generated by waste water and pesticides from adjacent agricultural land.
- A large part of Pulicat Lake is in danger and several other development projects affecting the lake are proposed such as expansion of Dugarajpatnam port and proposed Adani port among other projects.
- In addition, the impact of global warming and climate change on coastal ecosystems further accelerates the destruction of already threatened ecosystems.

Major Suggestions for Pulicat Lake Rejuvenation

Establishment of a Development Authority: State governments should set up a development authority for Chilka Lake, similar to the Chilka Development Authority in Odisha. The works ensured by this authority will be as follows:-

- Community based planning and management (eg active participation of stakeholders and resource users)
- Integrated approach (i.e. it will not only focus on the protected area but will include the conservation of the entire ecosystem) including land use planning, clear conservation objectives, a regional program for identification and mitigation of major impacts and project implementation and monitoring.

Proper allocation of resources: – One of the main reasons for this crisis is the lack of adequacy of human and financial resources currently allocated.

- Successful conservation of lakes depends on the proper management of their watersheds, but there are conflicting positions regarding the use of their resources.
- Local governments should prohibit the mining of lime shale by local people. This mining destroys mudflat habitats.
- Local governments should also make arrangements to protect these habitats as these habitats are important habitats for migratory birds.
- The government should go ahead with the process of registering Pulicat Lake in the Ramsar list.
- In addition to strategies for biodiversity conservation of Pulicat Lake, there is a need to undertake eco-tourism development, community participation, integrated watershed management, hydrological monitoring and modeling activities in collaboration with various national and international institutions.

Various learnings (learnings) obtained from the conservation of Chilka Lake should be used –

- Revitalizing the lake by funding research and educational and conservation projects
- Establishment of an Interpretation Centre, a GIS Cell and community participation and ecotourism and development programmes.
- Management of fish resources (in consultation with Central Saline Aquaculture Research Institute and Central Marine Fisheries Research Institute)
- Intervening Dredging
- Monitoring of aquatic chemistry and quality and elimination of invasive species.
- Formation of a team of biologists for the purpose of preparing a favorable ecological plan for the lake and regular monitoring of the lake ecosystem. Ecological approach is the only way to manage sustainable resources.

Way forward

- Management of the catchment in a participatory manner should be based on river basin approach as part of the lake restoration plan.
- Conservation of bird habitats and bird species with active community participation
- Economic incentives should be given to the local population to stop poaching of birds

- Measures to improve socio-economic conditions, such as orientation training to facilitate community-based ecotourism, should be attempted in the context of this.
- Provision of solar street lights for island villages.
- Develop a ferry service to isolated island villages.
- Develop landing facilities for fishermen.
- Efforts should be made in the field of networking of NGOs and community based organizations.
- Conduct education and environmental awareness activities.

Conclusion

- It is important to involve all stakeholders in the process of restoration, conservation and management of lakes and coastal wetlands.
- There is an urgent need to promote regional linkages, develop strategic partnerships and follow better practices in the conservation and management of lakes and coastal wetlands.
- Ongoing regional and international cooperation relationships and strategic partnerships between governments, international agencies, universities, research institutions, non-governmental organizations (NGOs), local communities, the private sector and individuals need to be established and strengthened.
- Lake Pulicat could be an important topic to indicate the future course of wetland conservation and if the press for its conservation is successful, it could serve as an international model for development and conservation.

Maya civilization

- According to a new study, the Maya civilization may have had access to about 500 drought-resistant food plants.
- We still do not know the secret behind the sudden decline of the Maya civilization. Scientists have long suspected that drought pushed people to starvation.
- The Maya civilization faced starvation due to its reliance on drought-sensitive crops such as corn, beans and squash.

Introduction:

- Maya are an indigenous people of Mexico and Central America who are native to Mexico south through modern Yucatán, Quintana, Campeche, Tabasco, Chiapas, Guatemala, Belize, El Salvador and Honduras.
- The Maya civilization originated in the Yucatan Peninsula. It is known for its vast architecture, advanced understanding of mathematics and astronomy.

- The rise of the Maya began around AD 250 and is known to archaeologists as the Classic Period of Maya culture, which lasted until about 900 AD. At its peak, the Maya civilization consisted of more than 40 cities, each with a population of between 5,000 and 50,000.
- But then suddenly between 800 and 950 AD many southern cities were abandoned. This period has been called the decline of the Classic Maya civilizations which confuses modern scientists.

Special features:

- 1500 BC The Maya civilization settled in villages and developed an agriculture based on the cultivation of corn, beans, squash. Cassava (Sweet Manioc) was also grown here till 600 AD.
- They began to build ceremonial centers and by about 200 AD these had grown into cities with temples, pyramids, palaces, ball courts and plazas.
- The people of the ancient Maya civilization excavated stone (usually limestone) for construction in large quantities, which they cut using hard stones such as 'chert'.
- They mainly engaged in slash-and-burn agriculture or shifting agriculture, but they used advanced techniques in the fields of irrigation and mountain agriculture. They also developed a system of hieroglyphic writing and highly sophisticated calendars and astronomical systems.
- The Maya people made paper from the inner bark of wild fig trees and wrote their hieroglyphs on books made from this paper. Those books are called 'codex'.
- The people of the Maya civilization also developed an elaborate and beautiful tradition of sculpture and carving.
- The main sources of information about the early Maya civilization are architectural works and stone inscriptions and carvings.

Other ancient civilizations

- Incan Civilization – Ecuador, Peru and Chile
- Aztec Civilization – Mexico
- Roman Civilization- Rome
- Persian Civilization- Iran
- Ancient Greek Civilization – Greece
- Chinese Civilization- China
- Ancient Egyptian Civilization – Egypt
- **Indus Valley Civilization** – from Pakistan to North-East Afghanistan and North-West India

- Mesopotamian Civilization – Iraq, Syria and Turkey

Sea dragon Exercise

- Recently the US Sea Dragon 22 exercise started in the Pacific Ocean with the navies of India, Australia, Canada, Japan and South Korea.
- India, Japan, Australia and the US are also part of the Quadrilateral Security Dialogue or Quad and also participate in the Malabar exercise.

About Sea Dragon 22 Practice:

- Sea Dragon is a US-led multi-national exercise designed to practice and discuss anti-submarine warfare strategies to be conducted simultaneously in response to traditional and non-traditional maritime security challenges in the Indo-Pacific.
- It is an annual exercise.

Importance:

- The exercise assumes significance in view of the strained relations of some countries with China and the increasing efforts of the PLA-Navy in the Indian Ocean region.
- The Indian Navy has recently inducted two more Poseidon 81 maritime reconnaissance and anti-submarine warfare aircraft which will further strengthen its capability to monitor Chinese ships and submarines in the region.

Swadeep Kumar