DAILY CURRENT AFFAIRS 25-11-2024

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Kanhirapoil Megalithic Site

Syllabus: GS-1; Pre-Historic era

Context

➤ Prehistoric rock-cut footprints and human figure unearthed at Kanhirapoil in Kerala's Kasaragod.

About

➤ The **Kanhirapoil Megalithic Site** is an important archaeological site located in the Wayanad district of Kerala, India.

➤ It is renowned for its megalithic structures, which are associated with the Iron Age and early historic periods in India.

Key Points on Kanhirapoil Megalithic Site

➤ **Location**:
   o Situated in **Wayanad district**, Kerala, in the **Western Ghats** region of southern India.
   o The site is situated close to the town of **Kanhirapoil**, which is also the source of the name.

- ➤ **Significance**:
  - o The site is notable for its **megalithic burials** and other artifacts from the **Iron Age** period (roughly 1000 BCE to 200 BCE).
  - o It is part of a larger group of megalithic sites in the **Western Ghats** region, offering insight into the **ancient culture** and society of South India.
- ➤ **Megalithic Structures**:
  - o The Kanhirapoil site contains **dolmens**, **menhirs**, and **cairn circles** (a type of stone arrangement used for burials).
  - o **Dolmens** are tombs made of large stone slabs, while **menhirs** are standing stones, believed to have ceremonial significance.
  - o The **cairn circles** are burial mounds surrounded by stone rings, often used in megalithic burials.
- ➤ **Artifacts**:
  - o **Pottery**, **iron tools**, and **stone weapons** have been found at the site.
  - o Evidence of **agriculture** and **animal domestication** is also present, indicating that the region had a settled agricultural community.
  - o The discovery of **beads** and **stone rings** points to possible trade and cultural exchange with neighboring regions.
- ➤ **Cultural Context**:
  - o The site is associated with the **Megalithic culture** of South India, which flourished during the **Iron Age**.
  - o It is believed to be part of a larger **necropolis** used by ancient communities for burials, reflecting their beliefs in life after death.
  - o The stone structures are likely linked to **ritual practices** and social stratification of the communities in the region.
- ➤ **Historical Importance**:
  - o The Kanhirapoil site adds valuable evidence to the understanding of **early agricultural societies** and **iron technology** in South India.
  - o It provides insights into the **social organization**, **rituals**, and **belief systems** of the people during the Iron Age.
- ➤ **Conservation**:
  - o The site has been a subject of study by several archaeologists and conservationists to better understand its significance.
  - o Due to its archaeological importance, there are efforts to preserve the site and protect it from degradation.

Comptroller & Auditor General

Syllabus: GS-2; Constitutional Body

Context

➢ K Sanjay Murthy Takes Over As Comptroller And Auditor General Of India.

About

➢ The **Comptroller and Auditor General of India (CAG)** is an important constitutional office established under **Article 148** of the **Indian Constitution**.
➢ The primary role of the CAG is to audit the accounts of the Union and State governments, as well as public sector undertakings, and to ensure transparency and accountability in the use of public funds.

Key Functions and Powers

➢ **Audit of Accounts**: The CAG is responsible for auditing the accounts of the central and state governments, local bodies, and public sector enterprises. It ensures that the financial resources of the government are used efficiently and for the intended purposes.
➢ **Reporting to Parliament and State Legislatures**: The CAG reports directly to the President of India, but its reports are submitted to the **Parliament** or the **State Legislatures**, depending on the jurisdiction. The Parliament then discusses these reports and takes necessary actions.
➢ **Audit of Public Expenditure**: The CAG audits public expenditure and helps ensure that public money is spent according to the provisions laid out in the Budget, with due consideration for effectiveness and efficiency.
➢ **Role in Financial Management**: The CAG also advises the government on financial management, including the preparation of the government's accounts. It can also examine whether public funds are used for the benefit of the people and if proper procedures are followed in their disbursement.
➢ **Performance Audits**: In addition to financial audits, the CAG conducts performance audits to evaluate whether government schemes and programs have achieved their intended goals and to suggest improvements.
➢ **Compliance Audits**: The CAG ensures that the government and its departments comply with laws, rules, and regulations concerning financial matters.

Constitutional Provisions

➢ **Appointment**: The CAG is appointed by the President of India. The appointment is made for a term of **6 years** or until the individual reaches the age of 65, whichever is earlier.

➢ **Independence**: The CAG's office is independent of the executive branch of government. This ensures that its functions are carried out without undue influence from the government. The CAG is also not subject to the control of any executive authority.

➢ **Removal**: The CAG can only be removed from office by the **President of India**, based on a resolution passed by **Parliament**. The grounds for removal are similar to those of a judge of the **Supreme Court**.

Powers

➢ The CAG has the authority to audit the accounts of the Union, States, and all entities that are financed by public funds, including government-owned corporations and autonomous bodies.

➢ It has the power to access all records related to government spending, irrespective of the nature or classification of the expenditure.

➢ The CAG can make recommendations on improving financial procedures and increasing transparency in financial matters.

Reports and Parliamentary Scrutiny

➢ The **CAG's Reports** are submitted to the **President of India**, who then places them before Parliament or the respective State Legislature. These reports are scrutinized by **Public Accounts Committees (PAC)**, which consists of members from various political parties.

➢ The reports are discussed in the **PAC** and various standing committees, which make recommendations to the government.

Significance of CAG's Role

➢ **Transparency**: The CAG helps ensure transparency in government finances by providing an independent evaluation of how public funds are utilized.

➢ **Accountability**: Through its audit reports, the CAG holds the government accountable to the public for the management of public finances.

➢ **Financial Discipline**: The CAG's audits help establish financial discipline within government agencies and departments, preventing wastage and mismanagement of public funds.

- ➢ **Public Trust**: The CAG's reports contribute to building public trust in the government's use of public money, as it provides an impartial and transparent view of government financial practices.

'One Day One Genome' Initiative

Syllabus: GS-2; Health, GS-3; Science and tech

Context

- ➢ **The Department of Biotechnology (DBT) and Biotechnology Research and Innovation Council (BRIC)** introduces the 'One Day One Genome' initiative to showcase the enormous microbial potential of India.

Key Highlights of the Initiative

- ➢ **Environmental Impact**: Microbes are integral to biogeochemical cycles, such as soil formation, degradation of organic waste, and detoxification of pollutants. Their roles in methane production and maintaining planetary homeostasis are vital for ecological balance.
- ➢ **Agricultural Benefits**: Microbial communities enhance nutrient cycling, nitrogen fixation, and soil fertility. They also help control pests and weeds and aid in plant stress responses. Symbiotic relationships between microbes and plants promote nutrient and water uptake.
- ➢ **Human Health**: The human body hosts more microbial cells than human cells. Microbes are crucial for digestion, immunity, and even mental health. Non-pathogenic microbes protect against infectious diseases, while pathogenic ones cause illness.
- ➢ **Genome Sequencing**: This initiative will use genome sequencing to unlock the hidden potential of microbes, identifying key enzymes, bioactive compounds, and antimicrobial resistance traits. This knowledge will aid in the development of environmentally sustainable solutions, agricultural innovations, and healthcare advancements.

Indian National Space Promotion and Authorisation Centre (IN-SPACe)

Syllabus: GS- 3; Space Technology

Context

➢ IN-SPACe plans to open India's space ground operations to private players

About

➢ The **Indian National Space Promotion and Authorization Center (IN-SPACe)** is an autonomous agency established by the Government of India under the Department of Space. It aims to promote and regulate private sector participation in the Indian space sector, providing a platform for non-government entities to carry out space-related activities.

Key Aspects of IN-SPACe

➢ **Establishment and Objectives**:
  o IN-SPACe was set up in 2020 to facilitate the private sector's involvement in space activities.
  o It aims to encourage private investment, innovation, and technological advancements in space science and applications.
  o It will act as a regulator, ensuring that space activities by private entities comply with the necessary safety and security protocols.

➢ **Roles and Functions**:
  o **Authorization and Regulation**: IN-SPACe is responsible for authorizing and regulating private sector space activities in India. It issues licenses for launching satellites, developing space technology, and other related activities.
  o **Promotion of Private Industry**: The center aims to foster innovation in the space sector by enabling private companies to access ISRO's facilities, data, and technology. It will serve as an interface for the private sector to engage with ISRO and other governmental organizations.
  o **Support to Entrepreneurs**: IN-SPACe provides assistance to new space startups by guiding them through regulatory processes, offering necessary infrastructure, and creating market opportunities.
  o **Coordinating with ISRO**: The center will coordinate with ISRO, ensuring that both public and private sector activities in the space domain are well-aligned and do not conflict with national space policies.

- ➢ **Key Focus Areas**:
  - o **Satellite Launches**: IN-SPACe will play a critical role in providing launch services to private entities, helping them with satellite launches, technology transfer, and mission planning.
  - o **Space Research and Development**: It will encourage R&D in areas like satellite communication, space exploration, and earth observation.
  - o **Space Applications**: The private sector is expected to use the space infrastructure for various applications, including telecommunications, weather forecasting, and remote sensing.
- ➢ **Private Sector Participation**:
  - o IN-SPACe will provide the necessary framework for private sector companies to operate in space-related activities by simplifying licensing and regulatory processes.
  - o The center will support private players through collaboration with ISRO on technology, infrastructure, and research, ensuring access to space-based applications and services.
  - o IN-SPACe also aims to reduce the dependency on government-led initiatives and bring efficiency by fostering competition and innovation.
- ➢ **Governance Structure**:
  - o The agency functions under the Department of Space, with a leadership headed by an experienced space professional and governed by a board that includes members from the private sector, the government, and academia.
  - o It operates in close coordination with ISRO, while being independent in terms of regulating the commercial space sector.
- ➢ **Recent Developments**:
  - o The Indian government has been gradually liberalizing the space sector, allowing private companies to actively participate in satellite launches and space missions. IN-SPACe plays a central role in this transition.
  - o India has seen significant growth in its private space sector, with companies like **Skyroot Aerospace** and **Agnikul Cosmos** developing their own launch vehicles.
  - o IN-SPACe also facilitates partnerships with international space agencies, opening new avenues for Indian companies in the global space market.
- ➢ **Challenges**:
  - o Regulatory hurdles and the need for a clear, predictable framework for private sector involvement in space activities.
  - o Ensuring safety and security in a growing space sector, particularly with multiple private players operating in space.

o Integrating private players with the strategic interests of the government while maintaining a balance between commercial growth and national security.
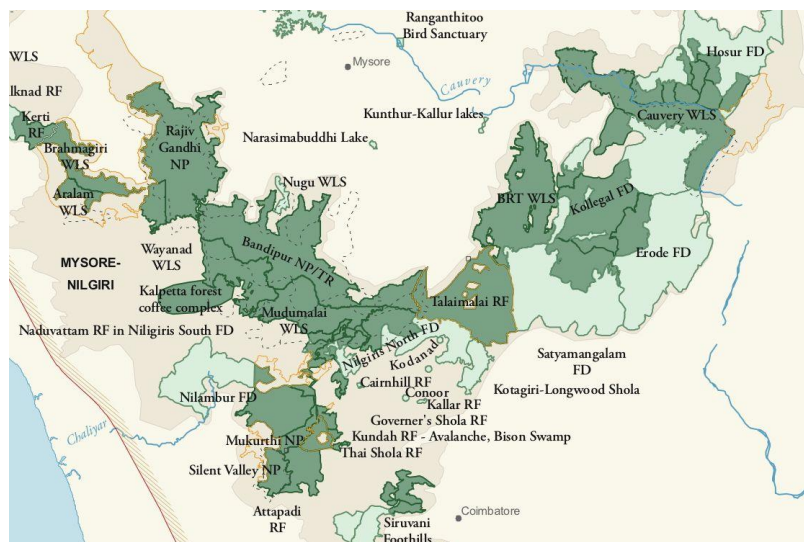
Significance for India's Space Program

➢ IN-SPACe marks a significant shift towards a more open and inclusive space policy, allowing India to tap into the potential of private enterprises in space exploration and technology development.

➢ The involvement of the private sector will likely lead to cost-effective solutions, accelerate innovation

➢ , and expand the global footprint of India's space capabilities.

Sathyamangalam Tiger Reserve

Syllabus: GS-3; Biodiversity

Context

➢ An initiative taken by the Forest Department to conduct evening coaching classes for school children in 10 tribal hamlets located within the Sathyamangalam Tiger Reserve (STR) has significantly enhanced their learning skills, while also providing them with livelihood opportunities and reducing their dependence on the forest in the long term.

About

- **Location:** Situated in the Erode district of Tamil Nadu.
- **Area:** Spanning approximately **1,411 square kilometers**, it is the largest wildlife sanctuary in Tamil Nadu.
- **Recognition:** Declared a Tiger Reserve in 2013 under the **Project Tiger** initiative.

Geographical Features

- **Terrain:** It is part of the Nilgiri Biosphere Reserve and serves as a corridor connecting the Eastern and Western Ghats.
- **Rivers:** Major rivers like **Bhavani**, **Moyar**, and **Noyyal** flow through the reserve, making it an ecologically vital region.
- **Altitude:** Ranges from 200 meters to 1,800 meters above sea level.

Flora and Fauna

- **Flora:**
  - Predominantly dry deciduous and tropical thorn forests.
  - Evergreen and semi-evergreen patches in higher altitudes.
  - Common species include **Teak**, **Sandalwood**, and **Bamboo**.
- **Fauna:**
  - **Flagship Species:** Bengal Tiger, Indian Elephant.
  - **Other Species:** Indian Leopard, Hyena, Sloth Bear, Four-horned Antelope, Gaur.
  - Home to diverse bird species like the Malabar Whistling Thrush and Great Indian Hornbill.
  - Houses reptiles such as the Indian Python and Monitor Lizards.

Conservation Significance

- **Biodiversity Hotspot:** Acts as a key ecological corridor, supporting genetic exchange between wildlife populations of the Eastern and Western Ghats.
- **Tiger Population:**
  - Home to an increasing tiger population due to successful conservation measures.
  - As per the 2022 Tiger Census, Tamil Nadu, with STR as a significant contributor, witnessed a rise in tiger numbers.
- **Elephant Corridor:** Critical for the migration of Indian elephants between the Nilgiris and Eastern Ghats.

Tribal Communities

➤ The reserve is home to several indigenous tribes, including the **Irulas** and **Soligas**, who play a role in sustainable forest use and conservation.

Challenges

➤ **Human-Wildlife Conflict:** Encroachments and agricultural expansion lead to frequent confrontations.
➤ **Poaching:** Threatens the population of tigers, elephants, and other species.
➤ **Deforestation:** Caused by illegal logging and developmental pressures.
➤ **Climate Change:** Affects the delicate balance of the ecosystem.

Conservation Efforts

➤ **Eco-Development Projects:** Engage local communities in sustainable activities and conservation awareness.
➤ **Anti-Poaching Measures:** Establishment of dedicated anti-poaching teams.
➤ **Habitat Restoration:** Reforestation programs to improve the forest cover.
➤ **Wildlife Corridors:** Efforts to maintain connectivity with other reserves like Bandipur and Mudumalai Tiger Reserves.