DAILY CURRENT AFFAIRS 21-09-2024

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Great Stupa of Sanchi

Syllabus: GS-1; Art & Culture

Context

- *Recently, External Affairs Minister S Jaishankar stopped by the replica of the East Gate of Sanchi's Great Stupa standing in front of* **Humboldt Forum museum in Berlin.**
- *The ornate red sandstone gateway, which was unveiled in December 2022, is a 1:1 reproduction of the original structure standing at almost 10 metres high and 6 metres wide, and weighing roughly 150 tonnes.*

Historical Background

- *Commissioned by* **Emperor Ashoka** *in the 3rd century BCE* **to honor Buddha's relics**, *the Great Stupa of Sanchi was initially a simple brick structure.*
- *It was later enlarged and elaborated during the reign of the* **Shunga dynasty** *(2nd century BCE), who added the stone railing and the decorative gateways (toranas).*
- *The stupa symbolizes Buddha's final release from the* **cycle of birth and rebirth (Mahaparinirvana)** *and represents Buddhist ideals.*

Architectural Significance

- **Structure:** *The Great Stupa is a large hemispherical dome (anda), with a circular base representing the universe.*
  The stupa is topped by a central pillar (yasti), symbolizing the axis of the world.
- **Harmika:** *A square railing located at the top of the dome, housing the central pillar. It symbolizes the domain of the gods.*

- **Chattra:** *Above the harmika are three umbrellas representing the Three Jewels of Buddhism (Buddha, Dharma, and Sangha).*
- **Toranas (Gateways):** *Four elaborately carved gateways located at the four cardinal directions, adorned with narrative reliefs that depict the life of the Buddha, Jataka tales, and scenes from his previous lives. They are significant for their symbolism and intricate art.*

Art and Iconography

- *The Great Stupa's sculptures and carvings on the toranas are exceptional examples of early Buddhist art.*
- *They use symbols like the lotus, wheel of* **dharma (Dharmachakra),** *and footprints to represent the Buddha, as direct depictions of him were avoided during this period (aniconic phase of Buddhist art).*
- *The carvings show* **Jataka stories** *(tales of Buddha's previous lives), events of Buddha's life such as his enlightenment and first sermon, and Yakshis (nature deities), which reflect a blend of Buddhist and local traditions.*

Religious Importance

- *Sanchi became a major center of Buddhism from the time of Ashoka to the Gupta period.*
- *The stupa embodies Buddhist cosmology and philosophy, representing the path to enlightenment and freedom from the cycle of* **samsara (rebirth).**
- *It became a pilgrimage site for Buddhists across India and beyond.*

Restoration and Rediscovery

- *After a period of decline in Buddhism, the site fell into disrepair and was largely forgotten until the 19th century when it was rediscovered by British archaeologist* **Sir Alexander Cunningham.**
- *The Great Stupa has undergone several phases of restoration, the most significant one in the early 20th century, ensuring its preservation.*

Location and Layout

- *The Great Stupa is located at Sanchi, a village in the Raisen district of* **Madhya Pradesh, India.**
- *It is part of a larger Buddhist complex, with several smaller stupas, temples, monasteries, and pillars (Ashokan Pillar).*

Salt pan lands

Syllabus: GS-1; Geography

Context

- *Earlier this month, the Centre approved the transfer of 256 acres of salt pan land in Mumbai to the* **Dharavi Redevelopment Project Pvt Ltd (DRPPL),** *a joint venture between Adani Realty Group and the Maharashtra government, for building rental housing for slum dwellers.*
- *This invited criticism from opposition leaders and environmentalists, who said that the decision to "benefit Adani" would damage the fragile ecosystem.*

About

- *Salt pan lands are low-lying, flat areas where salt is harvested through the process of evaporation.*
- *These lands are commonly found in arid and semi-arid regions where saltwater from seas or other sources is left to evaporate, leaving behind salt deposits.*

Formation and Geography

- *Salt pans are typically formed in coastal regions, river deltas, or near saline water bodies. They occur naturally or through human-made activities in salt production.*
- *In India, the largest concentration of salt pans is along the Gujarat coast, Tamil Nadu, and parts of Rajasthan (the Sambhar Salt Lake is an example).*

Types of Salt Pans

- **Natural Salt Pans:** *These form in arid regions where water accumulates in shallow basins, evaporates, and leaves salt behind (e.g., salt flats or playas).*
- **Artificial Salt Pans:** *These are created through human intervention, where seawater is intentionally channeled into shallow basins for salt harvesting.*

Economic Importance

- *Salt pans are vital for the production of salt, which is an essential commodity for human consumption and various industrial applications.*
- **India is one of the largest salt producers in the world, with Gujarat contributing over 75% of the total production.**

Environmental Aspects

- *Salt pans are often part of fragile ecosystems, such as wetlands, and play a role in supporting biodiversity, especially migratory birds like flamingos.*
- *The conversion of wetlands into salt pans can lead to habitat loss for several species.*

Challenges

- **Environmental degradation***: Large-scale salt production can cause soil salinization and negatively impact local agriculture.*
- **Climate change:** *Rising sea levels and changes in rainfall patterns may affect the availability of salt pan lands and salt production.*
- **Health hazards:** *Salt workers often face health issues due to exposure to harsh conditions like high temperatures, saline water, and poor working conditions.*

Legal and Policy Framework

- *Salt production in India is regulated by the* **Salt Department,** *under the* **Ministry of Commerce and Industry.**
- *Various environmental laws, like the* **Coastal Regulation Zone (CRZ) norms**, *impact the establishment and operation of salt pans, especially in coastal areas.*

PM AASHA

Syllabus: GS-2; Government Policies and interventions

Context

- *Union cabinet extends PM-AASHA price support scheme in agriculture till 2025-26*

About

- **PM-AASHA (Pradhan Mantri Annadata Aay Sanrakshan Abhiyan)** *is a government initiative launched in 2018 to ensure remunerative prices to farmers for their produce, as part of the government's commitment to double farmers' income.*
- *It provides a structured mechanism for implementing the* **Minimum Support Price (MSP)** *and enhancing income security for farmers.*

Key Components of PM-AASHA

- **Price Support Scheme (PSS):**
  - *The government purchases pulses, oilseeds, and copra from farmers at MSP through central agencies like the National Agricultural Cooperative Marketing Federation (NAFED) and Food Corporation of India (FCI).*
  - *State governments, in coordination with central agencies, ensure procurement at MSP.*
- **Price Deficiency Payment Scheme (PDPS):**
  - *Applicable for crops not covered under PSS, particularly oilseeds.*
  - *Farmers are compensated for the difference between the MSP and the actual selling price on the market, without requiring the physical procurement of crops.*
  - *The government transfers the price difference directly to farmers' bank accounts.*
- **Pilot of Private Procurement & Stockist Scheme (PPSS):**
  - *Encourages private sector participation in procuring oilseeds.*
  - *Private agencies will procure the produce at MSP when prices fall below it.*

Objectives of PM-AASHA

- *To safeguard farmers against distress sales during bumper production.*
- *To enhance income security through MSP, especially for small and marginal farmers.*
- *To provide flexibility to states in choosing the appropriate model for procurement.*

Challenges and Criticism

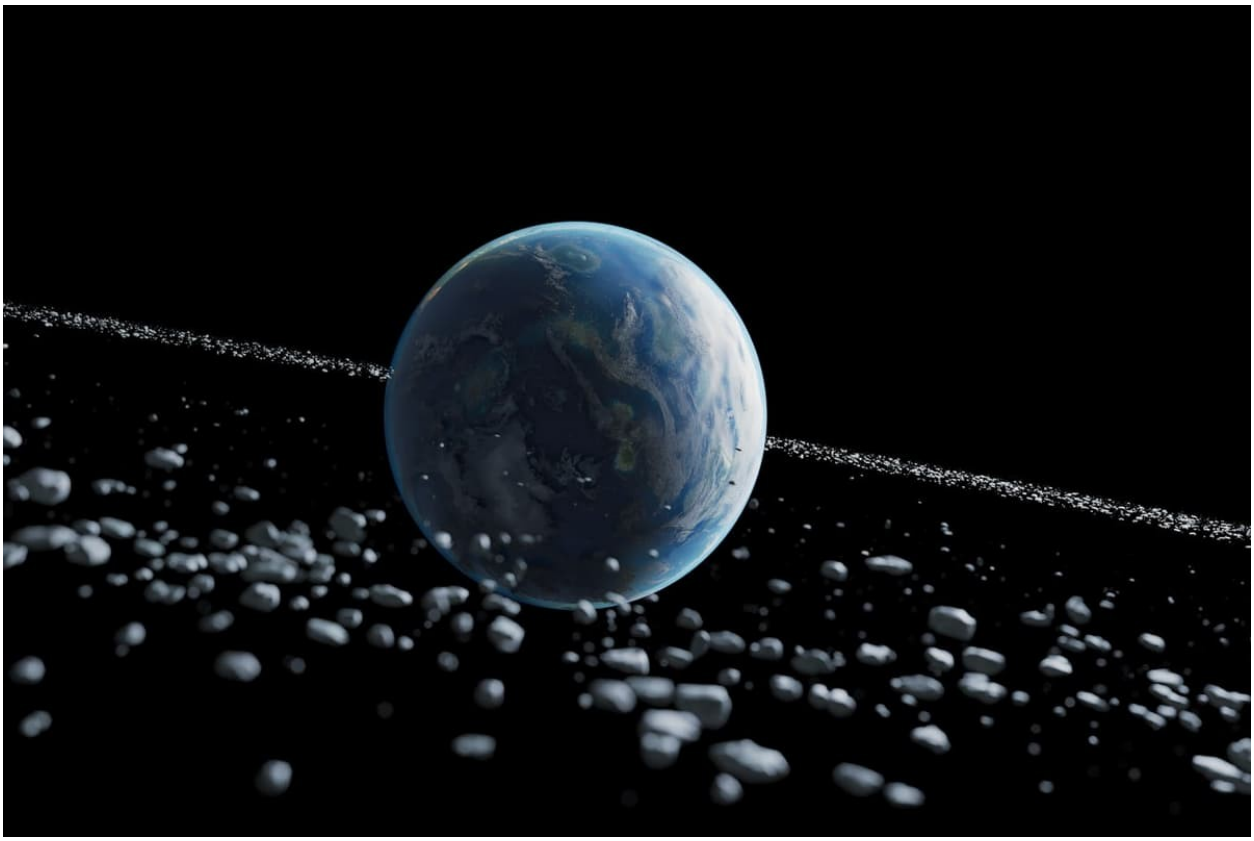
- **Limited Awareness and Reach:** *Many farmers, particularly smallholders, are unaware of the scheme, limiting its overall impact.*
- **Inadequate Infrastructure:** *Lack of storage and logistical infrastructure can hinder effective procurement under the PSS.*
- **Financial Burden:** *Price deficiency payments may strain state and central government finances without adequate budgetary provisions.*

Saturn's Rings

Syllabus: GS-3; Science & Technology

Context

- *In a groundbreaking discovery, researchers have found evidence suggesting that* **Earth may have once sported a ring system similar to Saturn's**, *approximately 466 million years ago.*



More about the news

- *This revelation, published in Earth and Planetary Science Letters, challenges our understanding of Earth's ancient history and offers new insights into a period of intense meteorite bombardment known as the Ordovician impact spike.*
- *According to the team's hypothesis, a large asteroid had a close encounter with Earth, passing within its* **Roche limit.**
- *This close approach caused the asteroid to break apart due to* **tidal forces**, *forming a debris ring around the planet.*
- *Over millions of years, material from this ring gradually fell to Earth, creating the spike in meteorite impacts observed in the geological record.*
- *The implications of this discovery extend beyond geology.*
- *The researchers speculate that the ring system may have influenced Earth's climate by casting a shadow and blocking sunlight.*

About Saturn's Rings

- *Saturn is the sixth planet from the Sun and the* **second-largest in the Solar System**.
- *It is best known for its complex and extensive ring system, which distinguishes it from other planets.*

Composition of Saturn's Rings

- **Material Composition:**
  - *Saturn's rings are made predominantly of ice particles, with smaller amounts of rock and dust.*
  - *The ice gives the rings their bright, reflective appearance.*
  - *The size of the particles in the rings varies greatly, ranging from tiny grains of ice to chunks as large as mountains.*
- **Origin of the Rings:**
  - *The exact origin of the rings is still debated, but scientists believe that they may have formed from remnants of a moon or comet that was shattered by Saturn's gravitational forces.*
  - *Another theory suggests that the rings may be the result of debris from collisions between Saturn's moons or the remnants of a moon that came too close to Saturn.*

Structure of the Rings

- **Ring System:**
  - *Saturn's rings are divided into seven major ring groups, labeled alphabetically in the order of their discovery (A, B, C, D, E, F, and G rings).*

- *The most prominent and brightest rings are the A and B rings, which are separated by a gap known as the Cassini Division, a dark, narrow region that is less dense.*
- *The F ring is a thin, faint ring located just outside the A ring and is known for its dynamic structure, with braided and twisted features.*

- **Size and Scale:**
  - *The rings are extremely wide, spanning about 280,000 km from one end to the other. Despite their vast horizontal spread, they are incredibly thin—only about 10 to 20 meters thick in most places.*
- **Ring Gaps:**

In addition to the Cassini Division, Saturn's rings contain several smaller gaps or divisions, like the Encke Gap and the Keeler Gap, created by the gravitational influence of Saturn's moons.

Palamau Tiger Reserve

Syllabus: GS-3; Biodiversity

Context

- *To retain the four tigers which have migrated to* **Palamu Tiger Reserve (PTR),** *efforts are underway to relocate at least two tigresses and one tiger from another reserve.*

About

Location

- *Situated in the Latehar district of* **Jharkhand**, *Palamau Tiger Reserve is part of the Betla National Park.*
- *It lies within the* **Chota Nagpur Plateau**, *characterized by its hilly and forested terrain.*

Geography

- *The reserve covers an area of 1,129.93 km^2, with the core zone spread over 414 km^2.*
- *The landscape is a mix of* **dry deciduous forest and sal trees**, *interspersed with grasslands and small rivers.*

Flora

- *Dominated by tropical dry deciduous forests. The primary tree species are sal (Shorea robusta), bamboo, mahua, palash, and pipal.*
- *Other notable species include medicinal plants and grasses.*

Fauna

- *The reserve is home to the Bengal tiger, but it also harbors species like Indian elephants, leopards, sloth bears, gaur (Indian bison), chital (spotted deer), and sambar deer.*
- *Notable bird species include the peacock, hornbill, and a variety of raptors.*

Tiger Population

- *In the past, the reserve faced challenges in tiger population growth due to poaching, illegal mining, and human encroachments.*
- *According to the 2018 tiger census, the tiger population in Palamau was critically low, with the presence of only 2 tigers reported.*

Rivers

- *The reserve is drained by several small rivers and streams like the* **Koel, Auranga, and Burha rivers,** *which are crucial water sources for wildlife.*

Challenges

- **Human-Wildlife Conflict:** *Due to the presence of tribal communities in and around the reserve, instances of human-wildlife conflict have been reported.*

- **Naxalite Activities:** *The region has witnessed insurgency-related issues, affecting conservation efforts.*
- **Deforestation:** *Illegal logging and encroachments have posed significant challenges to habitat preservation.*