Prelim Bits 20-10-2022 | UPSC Daily Current Affairs

Swadesh Darshan 2

The Ministry of Tourism has revamped its Swadesh Darshan scheme as Swadesh Darshan 2.0 (SD2.0) with an aim to develop sustainable and responsible infrastructure at destinations.

- The government launched the Swadesh Darshan Scheme in 2014-15 for the integrated development of **theme-based tourist circuits**.
- **Ministry** - Swadesh Darshan Scheme is a **Central Sector** scheme under the Ministry of Tourism and Culture.
- **Objective** - The scheme aims to promote, develop and harness the potential of tourism in India.
- **Funding** - Under the Swadesh Darshan scheme, **Central Financial Assistance** is provided for the State Governments and Union Territory Administrations for the infrastructure development of circuits.

- Some of the prominent circuits launched under this scheme are:

1. The Buddhist tourist circuit,
2. Ambedkar Tourist Circuit,
3. The North-East Tourist Circuit,
4. Coastal Circuit,
5. Desert Circuit and
6. Tribal Circuit.

Swadesh Darshan 2.0

- The Swadesh Darshan scheme has been revamped with the mantra of 'vocal for local'.
- 15 states with two or three destinations each have been identified to be developed under the scheme.
- The scheme was envisioned to synergise with other government schemes such as Swachh Bharat Abhiyan, Skill India, and Make in India.
- The aim is to enable tourism to realise its potential by positioning tourism as a major engine of economic growth and job creation.
- **Related Links** - Swadesh Darshan Scheme
- **Similar Links** - Eco-Circuits Projects, Rural Circuit, Gandhi Circuit, Tribal Circuit, Tourism related facilities at Buddhist Sites, Ambedkar Circuit

References

1. The Hindu | Govt. to launch Swadesh Darshan 2
2. Ministry of Tourism | Swadesh Darshan Scheme
3. Indian Express | Tourism ministry revamps Swadesh Darshan Scheme

Web3

India is rapidly growing its Web3 ecosystem with more than 450 active start-ups with four unicorns making India one of the highest growth markets for Web3 globally.

> *India is home to over 11% of global Web3 talent, making it the third-largest Web3 talent pool in the world*

- Web 3.0 or Web3 is the third generation of the World Wide Web technologies.
- Web 3.0 is still evolving technology.
- It has a strong emphasis on Decentralised applications and makes extensive use of blockchain-based technologies.

Web 1.0	It was only a basic read-only version of the internet.
Web 2.0	It enables us to read, write, upload, send & receive various forms of content – text, image & video, via the internet.
Web 3.0	It is a new, improved, and decentralised internet ecosystem that uses blockchain technology.

- HTML will continue to be a foundational layer with Web 3.0, like Web 1.0 and Web 2.0.
- With Web 3.0, applications and services use a decentralised blockchain instead of a centralised database.
- The 4 main pillars/features of Web 3.0
    1. **Artificial Intelligence**
    2. **Semantic Web**
    3. **Ubiquity**
    4. **3D Graphics**

Web 3.0 applications

- **Non-fungible tokens (NFT)** – NFT are tokens stored in a blockchain with a cryptographic hash, making the token unit unique.
- **Decentralised finance (DeFi)** - **DeFi** uses decentralised blockchain to enable financial services outside the confines of traditional centralised banking infrastructure.
- **Cryptocurrency -** Cryptocurrencies like Bitcoin are Web 3.0 applications.
- **Decentralised applications (dApps)** - **dApp** are applications built on top of blockchain and use smart contracts to enable service delivery in a programmatic approach logged in an immutable ledger.
- **Cross-chain bridges – It** enables a degree of interoperability across the multiple block chains in the Web 3.0 world.
- **Decentralised Autonomous Organization (DAO) –** DAOs provide a form of self-governance in an attempted decentralised approach.
- **Related links** – Web 3.0, Web 5.0

References

1. The Hindu | Web 3 ecosystem
2. Business Today - What is Web 3.0?

Mission DefSpace

The Prime Minister launched Mission DefSpace to develop innovative solutions for the Defence Forces in the Space domain.

- Mission DefSpace was launched with 75 Challenges at the DefExpo 2022.
- The Mission aims to develop innovative solutions for the Defence Forces through **industry & start-ups**.
- This is the first time private industry is given an opportunity in the defence space sector.
- The programme will focus on various challenges in this area that have been reviewed and identified by the **3 defence services**.
- Under Mission Def-Space, 75 challenges are being opened to get innovative solutions, based on the defence requirements in the space domain.
- The initiative will also prepare India for future possibilities in space domain and will also increase the country's preparation further.
- The space sector has shown a thriving ecosystem of entrepreneurs and private businesses with aid from government policies and reforms.
- Over 55 start-ups have registered with the Indian Space Research Organisation (ISRO) in 2 years.
- Mission DefSpace realises the potential of start-ups in Space technology.
- The mission also aids in boosting the domestic defence industry.
- Space technology is also helping in shaping the definitions of India's space diplomacy.
- There are more than 60 developing countries with whom India is sharing its space science.

References

1. Business Line | PM launches Mission DefSpace for Armed Forces
2. The Hindu | We have to work fast to solve various challenges in space technology: Modi

Lothal National Maritime Heritage Complex

Lothal in Gujarat is to get National Maritime heritage complex (NMHC).

Lothal

- Lothal is located along the **Bhogava River,** a tributary of river Sabarmati, in the Gulf of Khambat.
- It was one of the **southernmost sites** and only port-town of the Indus Valley civilization.
- It was a trade centre for beads, gems and ornaments in ancient times that traded with West Asia and Africa.

- Lothal (Loth + thal) means '**the mound of the dead'** in Gujarati.

  Mohenjo-Daro, an Indus Valley Civilisation site, (now in Pakistan) also means 'the mound of the dead' in Sindhi.

- Lothal was a major trading centre of the Indus Valley Civilisation, and also a symbol of India's maritime power and prosperity.
- According to the Archaeological Survey of India (ASI), Lothal had the world's earliest known dock, connecting the city to an ancient course of the Sabarmati River.
- The excavations shows Lothal had the upper town (citadel), the lower town, a bead-making factory, a ware house and a tidal dockyard.
- Lothal is in the tentative list of UNESCO World Heritage Site.

National Maritime Heritage Complex

- National Maritime heritage complex (NMHC) is being developed to showcase India's rich and diverse maritime heritage.
- The construction of the National Maritime Heritage Complex is being developed by the Ministry of ports, shipping and waterways.
- The Heritage complex comprises of –
  1. Lothal mini recreation to recreate Harappan architecture and lifestyle,
  2. Memorial theme park,
  3. Maritime and Navy theme park,
  4. Climate theme park and
  5. Adventure and amusement theme park.
  6. World's tallest lighthouse museum,
  7. 14 galleries highlighting India's maritime heritage

References

1. Indian Express | Lothal to get heritage complex
2. PIB | National Maritime Heritage Complex
3. Live Mint | National Maritime Heritage Complex in Lothal

Pongamia Pinnata

Pongamia pinnata has attracted the attention of global investors and companies that have committed to net-zero emissions for agro-forestry and carbon sequestration projects.

- *Pongamia pinnata* is better known in the subcontinent as Indian beech, karum tree, mullikulam tree, pongam and pongam oil tree.
- The tree has a broad-spreading canopy, short leaf-shedding season, nearly evergreen leaves and minimal maintenance.
- **Soil** - The tree can grow on various soil types, including rocky, heavy clay, sandy, alkaline, and saline soils.
- However, drained sandy-loam soil with adequate moisture is ideal for it.
- **Drought tolerance** – The tree is drought-tolerant and adapted to intense heat with its

marvel of a root system.
- The tree’s tap roots go as deep as 10 metres, can be grown on marginal lands, and won’t compete with food crops.
- **Significance** - It is a popular feedstock for biodiesel, an indigenous medicine, a good fodder, soil binder.
- With the UN declaring 2021-30 the decade of ecosystem restoration, the Pongam has gained a lot of significance.
- Many investors are interested in funding *Pongamia pinnata* plantations for carbon offsets.
- **Carbon Sequestration** - Pongamia's carbon dioxide sequestration potential during the 10–15 years of its growth is many folds that of several other tree species.
- Over a 25-year period, one Pongamia tree can sequester 767 kg of carbon.
- **Oil** - Pongamia seeds give out an oil known as *Karanja* or poonga oil.
- The oil is yellowish-orange to brown and can be used to produce biodiesel through transesterification.
- The poonga oil is used as a liniment for skin and rheumatic disorders in the Ayurvedic and Siddha systems.
- **Biodiesel** - Biodiesel production from Pongamia generates 7.88 kg of biomass waste per kg of biodiesel, mainly in the form of seed cake.
- Biomass waste can potentially be used as anaerobic digester feedstock for biogas production.
- **Fertiliser** - The seed oil cake is used as an organic pesticide and fertiliser, given its high nitrogen content.

References

1. The Hindu Business line | Pongamia pinnata Tree of sustainable life
2. India Biodiversity | Pongamia pinnata
3. Live Mint | The Indian Beech tree is a powerhouse on the sidewalk

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