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Sea Erosion

National Center for Coastal Research (NCCR) - an attached office of Ministry of Earth Sciences - has undertaken vulnerability studies due to sea erosion at selected locations along the Indian coast.

- Also known as Coastal Erosion (or Shoreline Retreat), the Sea Erosion is the break down and loss of coastal lands due to the net removal of sediments or bedrock by the sea from the shoreline.
- Coastal erosion is typically driven by the
    1. Action of **destructive waves** and currents with very high energy, and these waves are the most powerful in stormy conditions.
    2. **Mass wasting processes** on slopes, and subsidence (particularly on muddy coasts).

  The swash is when a wave washes up onto the shoreline.

  The backwash is when the water from a wave retreats back into the sea.

- As the backwashes of the destructive waves are stronger than swashes, the backwash pulls material away from the shoreline and into the sea resulting in erosion.
- **Processes** - Destructive waves erode through four main processes; Hydraulic Action, Compression, Abrasion and Attrition.
- **Reasons behind the Sea erosion** - Climate change-driven rise in sea level and increased intensity of ocean storms.
- Human activity closer to the shoreline, such as construction, dredging, quarrying and sand mining, is exacerbating the menace.
- In its natural state, this eco-system has a sobering influence on saline winds, cyclones, sea waves and incursion of seawater into underground aquifers.
- In India, though the coastal zone regulations are meant to preserve the seashore, their implementation has been below par.
- **Related Links** - Coastal Conservation Measures

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1797251
2. https://www.gsi.ie/en-ie/geoscience-topics/natural-hazards/Pages/Coastal-Erosion.aspx
3. https://www.ga.gov.au/scientific-topics/community-safety/coastalerosion

Chintamani Padya Natakam

After reviewing the contents of a 100-year-old play named 'Chintamani Padya Natakam', the Andhra Pradesh government has banned it.

- 'Chintamani Padya Natakam' was written in 1920 by playwright Kallakuri Narayana Rao, who

was also a social reformer.
- **Story** - The play is about Chintamani, a courtesan and a devotee of Lord Krishna, who finds salvation by singing bhajans.
- She is courted by Subbi Shetty, a businessman from the Arya Vysya community, who loses his wealth and family due to his attraction to her.
- The original play had a social message, but over the years, it has been modified purely for entertainment.
- **Social message** - In the play, the writer explains how people neglect their families by falling prey to certain social evils.
- It was aimed to create awareness on the Devadasi system and how the flesh trade was ruining many families at that particular period.

Reference

1. https://indianexpress.com/article/explained/andhra-pradesh-chintamani-padya-natakam-ban-explained-7765602/
2. https://www.thehindu.com/news/national/andhra-pradesh/ap-govt-bans-100-year-old-chintamani-padya-natakam/article38290570.ece

National Monuments Authority

To create a global awareness on the preservation of monuments and heritage, National Monuments Authority has organized a Webinar.

- Head-quartered in New Delhi, the National Monuments Authority (NMA) is a statutory body that functions under the Ministry of Culture.
- It has been setup under The Ancient Monuments and Archaeological Sites and Remains (AMASR) (Amendment and Validation) Act, 2010.
- NMA works for the protection and preservation of monuments and sites through management of the prohibited and regulated area around the centrally protected monuments.
- One among the responsibilities is to consider grant of permissions to applicants for construction related activity in the prohibited and regulated area.

Reference

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2. https://www.nma.gov.in/
3. https://indianculture.gov.in/MoCorganization/national-monuments-authority

M2M Communication

The Government has taken steps to facilitate wider proliferation and innovation in Machine to Machine communication (M2M) sector.

- Machine-to-machine (M2M) refers to any technology that enables networked devices to exchange information and perform actions without the manual assistance of humans.
- The first use of M2M communication is often credited to Theodore Paraskevakos, who invented technology related to the transmission of data over telephone lines, the basis for modern-day caller ID.
- **Purpose** - The main purpose of M2M technology is to tap into sensor data and transmit it to a network.

- Unlike SCADA or other remote monitoring tools, M2M systems often use public networks and access methods - cellular or Ethernet - to make it more cost-effective.
- **Components** - The main components of an M2M system include sensors, RFID, a Wi-Fi or cellular communications link, and autonomic computing software programmed to help a network device interpret data and make decisions.
- These M2M applications translate the data, which can trigger preprogrammed, automated actions.
- Artificial intelligence and machine learning facilitate the communication between systems, allowing them to make their own autonomous choices.

M2M is also the foundation for the internet of things.

- **Uses** - M2M technology helps remotely monitor equipment and systems.
- It reduces costs by minimizing equipment maintenance and downtime.
- It was first adopted in manufacturing and industrial settings, where other technologies, such as and remote monitoring, helped remotely manage and control data from equipment.
- M2M has since found applications in other sectors, such as healthcare, business and insurance.

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1797179
2. https://internetofthingsagenda.techtarget.com/definition/machine-to-machine-M2M

Krishi UDAN Scheme 2.0

- **In 2020**, Krishi Ude Desh Ka Aam Naagrik (Krishi UDAN) Scheme was launched by the Ministry of Civil Aviation to assist farmers in transporting agricultural products on international and national routes.
- The scheme aims to ensure seamless, cost-effective, time-bound air transportation and associated logistics for all Agri-produce originating especially from Northeast, hilly and tribal regions of the country.
- Krishi UDAN Scheme is a convergence scheme where 8 Ministries/ Departments would leverage their existing schemes to strengthen the logistics for transportation of Agri-produce. Those include,
    1. Ministry of Civil Aviation,
    2. Department of Agriculture & Farmers' Welfare,
    3. Department of Animal Husbandry and Dairying,
    4. Department of Fisheries,
    5. Ministry of Food Processing Industries,
    6. Department of Commerce,
    7. Ministry of Tribal Affairs,
    8. Ministry of Development of North-eastern Region (DoNER).
- There is no specific budget for Krishi Udan under the Scheme.
- **In 2021**, Krishi UDAN 2.0 was launched by the Ministry of Civil Aviation.
- Krishi UDAN 2.0 aims to facilitate and incentivise the movement of agricultural produce through air transportation, mainly biodegradable foods from hilly areas, north-eastern States and tribal regions.
- It will also focus on bringing about a convergence between the agriculture and aviation sectors (**A2A**: Agriculture to Aviation).

- It aims to increase the share of air carriage in the modal mix for transportation of Agri-produce, which includes **horticulture, fishery, livestock and processed products**.
- The Ministry of Civil Aviation has identified 7 domestic and international trade routes under the scheme.
- **Implementation Agency** - The enhanced version of the Krishi UDAN scheme was formulated with support from AAI Cargo Logistics and Allied Services Company Limited (AAICLAS).
- [AAICLAS is a 100% subsidiary of the Airports Authority of India and Invest India, India's national Investment Promotion & Facilitation Agency, under the Ministry of Commerce and Industry.]

Reference

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2. https://vikaspedia.in/news/krishi-udan-scheme
3. https://frontline.thehindu.com/dispatches/ministry-of-civil-aviation-launches-the-krishi-udan-20-scheme-for-facilitating-movement-of-agricultural-produce/article37238757.ece

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