



- Where there is a combination of hard and soft material this leads to the formation of **bays and headlands**.



Causes of Coastal Erosion

- **Sea level rise:** As sea level rises, the shoreline moves inland, eroding the land in its path.
- **Storm surges:** Storm surges are large waves that can be generated by hurricanes, typhoons, and other storms. These waves can cause extensive damage to coastal areas, including erosion.
- **Wave action:** Waves constantly pound against the shoreline, eroding the land over time. The strength of the waves is determined by the wind speed, the distance, and water depth.
- **Longshore currents:** Longshore currents are currents that flow parallel to the shoreline. These currents can erode the shoreline by carrying away sand and other sediments.
- **Human activities:** Human activities such as **dam construction, sand mining, and coastal development** can disrupt the natural processes that help to protect coastlines from erosion.

Coastal erosion mitigation measures

- **Beach nourishment:** Beach nourishment is the process of adding sand to a beach to restore its natural shape and size.

- **Seawalls and revetments:** Seawalls and revetments are structures that are built along the shoreline to protect it from erosion.
- **Breakwaters:** Breakwaters are structures that are built offshore to break the waves before they reach the shoreline. This can help to reduce erosion by reducing the energy of the waves.
- **Vegetative buffers:** Vegetative buffers are areas of vegetation that are planted along the shoreline to help protect it from erosion. Vegetation can help to bind the soil and reduce the impact of waves.
- **Artificial reefs:** Recreation of the coral reefs colonies to dissipate wave energy by wave breaking and protect coasts also augment the amount of sea life such as fish, algae, barnacles, corals, oysters, and cause shoreline to accrete.



Government Initiatives to conserve coastal areas

- **Coastal Regulation Zone (CRZ) notification, 2019:** To conserve and protect coastal stretches and marine areas, and to ensure livelihood security to fisherfolk and other local communities.
 - The notification also provides for **No Development Zones (NDZ)** along various categories of coastal areas to protect India's coastline from encroachment and erosion.
- **Coastal Zone Management Plan (CZMP):** It includes mapping of erosion prone areas and preparation of a shoreline management plan for identified eroding stretches.
- **The Ministry of Environment, Forest & Climate Change has delineated the hazard line** for the entire coast of the country.
- **Indian National Centre for Ocean Information Services (INCOIS)** has

estimated Coastal Vulnerability Index (CVI) for the Indian coastline.

- Under 15th Finance Commission, the recovery and reconstruction window of National Disaster Response Fund (NDRF) for Rs. 1000 crore is earmarked for resettlement of displaced people affected by erosion.

Way Ahead

- It is important to address the underlying causes of coastal erosion, such as sea level rise and human activities.
- This can be done by reducing greenhouse gas emissions to slow the rate of sea level rise, and by adopting more sustainable coastal development practices.

National Centre for Coastal Research (NCCR)

- **Mandate:** To carry out all multidisciplinary research under the central domain: **Marine Pollutions, Coastal processes and Hazards, Coastal Habitats and Ecosystem and Capacity Building and Training.**
- **Mission:** To offer scientific and technical support to coastal communities and stakeholders for integrated and sustainable use of resources towards the socio-economic benefit of the society.
- **Research Areas:** Earth, Atmosphere & Environment Sciences
- **Parent Ministry:** Ministry of Earth Sciences (MoES)
- **Headquarters:** Chennai, Tamil Nadu

Source: IE

NEWS IN SHORTS

AAROGYA MAITRI AID CUBE

Context: World's first portable hospital 'Aarogya Maitri Aid Cube' unveiled in Gurugram.

About Aarogya Maitri Aid Cube:

- It is a **portable hospital** designed indigenously under the **Project 'BHISHM' (Bharat Health Initiative for Sahyog Hita and Maitri)**.
- It has the modular trauma management and aid system which is made up of 72 detachable **mini-cubes**.
 - Each mini-cubes being a **specialised station for emergency response and humanitarian efforts.**
- The Aarogya Maitri Cube comes under the 'Aarogya Maitri Project' initiated by the Prime Minister of India and **jointly developed by the Ministry of Health, the Ministry of Defence, and the National Security Council.**

Significance

- It can handle bullet injuries, burns, head, spinal and chest injuries, minor surgeries, fractures and major bleeding.
- These cubes are **light and portable**, and can be rapidly deployed anywhere, from airdrops to ground transportation.
- It is a testament to India's commitment to a '**human-centric globalisation**' and its *consultative, outcome-oriented, demand-driven, people-centric approach* in its development partnerships.

Source: PIB

HATTEE COMMUNITY

News: Members of the **Hattee community**, which was **declared a Scheduled Tribe**, are seeking that the ST certificates be issued to them immediately.

About the Hattis

- The Hattis are a community who got their name from their **tradition of selling** homegrown vegetables, crops, meat and wool etc. at **small markets called 'haat' in towns.**
- The Hatti community is cut off from Sirmaur

of Himachal by **Giri river and Tons river** divides it from the **Jaunsar Bawar area** of Uttarakhand.



- The Hattis are governed by a traditional council called **Khumbli**, which like the khaps of Haryana, decide community matters.

Source: TH

SECTION 6A OF THE CITIZENSHIP ACT, 1955

Context: Recently, the Constitution Bench of the Supreme Court(SC) examined the validity of Section 6A of the Citizenship Act, 1955.

About

- Section 6A was inserted into the Citizenship Act, 1955 as part of the **Assam Accord** which was signed in 1985.
- The Assam Accord signed by the All Assam Students Union, Assam government and the Government of India on August 15, 1985 to detect and deport the foreigners, **Section 6A was inserted to the Citizenship Act** to grant citizenship to people who have migrated to Assam.
- Through this rights and obligations of Indian citizens were granted to foreigners who entered Assam before January 1, 1966, and were "ordinarily resident" in the state.
- **Petition in SC:** Petitioners argued that the Section 6A potentially affected the political and economic rights of the local population of Assam.

Source: TH

INDIA INFRASTRUCTURE REPORT 2023

News: The India Infrastructure Report 2023 on Urban Planning and Development was released.

About

- The India Infrastructure Report 2023 has been a collaboration of the **IDFC Foundation, Infrastructure Development Corporation (Karnataka) Ltd. (iDeCK)** and the **National Institute of Urban Affairs (NIUA)**.
- The report identifies and analyzes legal, fiscal, regulatory, technological, social, and conceptual aspects related to contemporary themes relevant to infrastructure development.

Key Highlights of the Report

- **Digital technology:** It highlights the transformative potential of digital technology in shaping the urban landscape of India.
 - Focus areas include the concept of 'smart cities' and the significance of performance ranking criteria.
- **Financial dimensions:** The report Examines the financial dimensions of urban development, with a special emphasis on public-private partnerships (PPPs), the financial sustainability of urban local bodies, and the efficacy of municipal bonds as potent financing instruments.
- **Urban redevelopment:** Urban transportation planning and urban redevelopment as pivotal components of effective urban governance through transit-oriented development, efficient urban goods movement, and floor space and land price regulation in India.

National Institute of Urban Affairs (NIUA)

- NIUA is a Central Autonomous Body under the **Ministry of Housing and Urban Affairs**, established in **1976**.
- It is a national think-tank undertaking cutting-edge multi-disciplinary research, knowledge exchange and capacity development, policy planning and advocacy in the domain of urban development.

Source: PIB

AFRICA GREEN INDUSTRIALISATION INITIATIVE

In News: African leaders came together on the third day of the 28th Conference of Parties (COP28) to the United Nations Framework Convention on Climate Change to launch the **green industrialisation of the continent**.

About Initiative

- The Green Industrialisation Initiative is set to accelerate **green growth of industries in Africa** and **attract finance and investment opportunities**, building upon the **Nairobi Declaration** of the Africa Climate Summit held in September 2023.
- The initiative builds upon the existing \$4.5 billion Africa green investment from the United Arab Emirates (UAE) .
- The initiative underscores the importance of green industrialisation to harness Africa's vast and quality resources to secure prosperity for all.
- It incorporates elements of the **Sustainable Development Goals (SDGs)** and the **Paris Agreement**, discourages fossil fuel production and use that immensely contributes to global warming.
 - Africa has 40 percent of the world's critical minerals necessary for energy transition and has the world's largest natural carbon sink.

Source: [DTE](#)

RAMASWAMY VENKATARAMAN

Context: Birth anniversary of **8th President of India** Shri R. Venkataraman was observed.

About

- He was an activist in the Indian freedom struggle and participated in the **Quit India Movement in 1942**.
- He was also a **member of the Constituent Assembly** and provincial cabinet.
- During the Emergency in India (1975-1977), he served as the Minister of Finance and later as the Minister of Defense.
- **Awards:** He was awarded the Bharat Ratna, India's highest civilian honor, in 2009 (posthumously).

Source: [PIB](#)

