World Heritage Sites & Climate Change

Why in News

The first ever scientific assessment of the amounts of **greenhouse gases** emitted from and absorbed by forests (2001-2020) in **UNESCO World Heritage sites** has found that forests in World Heritage sites **play a vital role in mitigating** climate change**.**

Key Points

- **Mitigating Climate Change:**
    - World Heritage sites play a vital role in mitigating climate change by **absorbing 190 million tons of CO_2 from the atmosphere each year.**
    - Carbon sequestration by world heritage forests over long periods has led to **total carbon storage of approximately 13 billion tons of carbon.**
        - If all this stored carbon were to be released into the atmosphere as CO_2, it would be akin to emitting 1.3 times the world's total annual CO_2 emissions from fossil fuels.
    - However, **ten forests released more carbon than they sequestered** due to pressure from human activity and climate change, which is alarming.
    - UNESCO under its **World Heritage Marine Programme** lists **50 sites across the globe for their unique marine values**. These represent just **one per cent of the global ocean area.** But they comprise at least **15% of global blue carbon assets.**
        - **Blue Carbon** is organic carbon that is mainly obtained from decaying plant leaves, wood, roots and animals. It is captured and stored by coastal and marine ecosystems.
    - India's **Sundarbans National Park** (60 million tonnes of carbon) is among five sites that have the highest blue carbon stocks globally.
- **Reason for High Emissions:**
    - At some sites the **clearance of land for agriculture caused emissions to be greater than sequestration.**
    - The increasing scale and severity of **wildfires,** often linked to severe periods of drought, is also a predominant factor in several cases.
        - Other extreme weather phenomena, such as **hurricanes**, contributed at certain sites.
- **Recommendations:**
    - **Protection of Heritage Sites:**
        - **Strong and sustained protection of UNESCO World Heritage sites** and their surrounding landscapes to ensure their forests could continue to act as strong carbon sinks and stores for future generations.
    - **Rapid Response:**

- **Rapidly responding to climate-related events**, as well as maintaining and strengthening ecological connectivity through improved landscape management.

◦ **Integrated Protection:**

- Integrating the continued protection of UNESCO World Heritage sites into international, national and local climate, biodiversity and sustainable development strategies.
- It should be in line with the **Paris climate agreement,** the **Post-2020 Global Biodiversity Framework and the Sustainable Development Goals.**

Sundarban National Park

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- It is **located in the south-east of Kolkata in the District of West Bengal** and forms part of the Gangetic Delta.
- The Sundarbans are **mangrove forest**, on the delta of the **Ganges**, **Brahmaputra** and Meghna rivers on the Bay of Bengal.
- The area is **known for its wide range of fauna.** It is **home to many rare and globally threatened wildlife species** such as the estuarine crocodile, Royal Bengal **Tiger,** Water monitor lizard, **Gangetic dolphin**, and **olive ridley turtles**.

World Heritage Marine Programme

- It is a global collection of unique ocean places stretching from the tropics to the poles.
- Today, **the List includes 50 unique ocean places across 37 countries** – recognized for their **unique marine biodiversity, singular ecosystem, unique geological processes or incomparable beauty.**
- **India's Sundarban National Park** is the only **listed site** under this programme.

World Heritage Sites

- A World Heritage Site is a place that is **listed by UNESCO for its special cultural or physical significance.**
- The list of World Heritage Sites is maintained by the international '**World Heritage Programme**', administered by the UNESCO **World Heritage Committee**.
- This is embodied in an international treaty called the **Convention concerning the Protection of the World Cultural and Natural Heritage**, adopted by UNESCO in 1972.
- **India has 40 world heritage sites,** including 32 cultural properties, 7 natural properties and 1 mixed site. The latest one included is **Dholavira in Gujarat.**

Source: DTE

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