



# 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<sub>2</sub> 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<sub>2</sub>, it would be akin to emitting 1.3 times the world's total annual CO<sub>2</sub> 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



- 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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