



Mains Practice Question

Q. In the recently presented Union Budget 2023-24, the government has introduced a scheme called "MISHTI" aimed at preserving mangroves. Discuss the significance of mangroves in addressing climate change and examine how this scheme will contribute to the conservation of mangroves in India. (250 words)

17 May, 2023 GS Paper 3 Bio-diversity & Environment

Approach

- Start your answer by introducing mangroves.
- In the body section, mention the importance of mangroves and how MISHTI scheme will help in mangrove conservation.
- Conclude accordingly.

Introduction

Mangroves are a type of coastal wetland ecosystem characterized by salt-tolerant trees and shrubs. They are found in tropical and subtropical regions, predominantly along sheltered coastlines, estuaries, lagoons, and deltas. Mangrove forests play a crucial role in maintaining the health of coastal ecosystems and providing numerous ecological benefits.

Body

Mangroves play a crucial role in addressing climate change and mitigating its impacts. Here are some significant aspects of mangroves in relation to climate change:

- **Carbon Sequestration:** Mangroves are highly efficient carbon sinks. By absorbing and storing carbon dioxide, mangroves help mitigate the greenhouse effect, reducing the concentration of greenhouse gases in the atmosphere and combating climate change.
- **Coastal Protection:** Mangroves act as natural buffers against coastal erosion, storm surges, and tidal waves. Their intricate root systems and dense vegetation create a physical barrier that dissipates wave energy and reduces the impacts of storms and hurricanes.
- **Biodiversity Conservation:** Mangroves are incredibly diverse ecosystems that support a wide range of flora and fauna. They provide critical habitats for numerous species, including fish, crustaceans, birds, and mammals.
- **Adaptation to Sea-Level Rise:** Rising sea levels are one of the consequences of climate change. Mangroves have a unique ability to keep pace with sea-level rise by capturing sediment and building up their landward edge.
- **Sustainable Livelihoods:** Mangroves are essential for the livelihoods of millions of people living in coastal communities. They support fisheries, provide timber and non-timber forest products, and offer opportunities for tourism and recreation.
- **Water Quality Improvement:** Mangroves act as natural filters, trapping sediment and pollutants from the land before they reach the ocean. They help maintain water quality by reducing the impacts of nutrient runoff and preventing harmful algal blooms.

How will MISHTI Scheme help in Mangrove Conservation?

- The MISHTI scheme facilitates mangrove plantation along India's coastline and on salt pan lands.
- The MISHTI scheme provides financial assistance to states and local communities for mangrove plantation and rehabilitation.
- Through "convergence between MGNREGS, Campa Fund and other sources, the scheme aims at intensive afforestation of coastal mangrove forests.
- The scheme promotes the use of sustainable mangrove management practices.
- The scheme supports research on mangrove ecology and conservation.

Conclusion:

Given their numerous benefits, the preservation, restoration, and sustainable management of mangroves are crucial components of climate change mitigation and adaptation strategies. Incorporating mangrove conservation into global climate policies and supporting local communities can contribute to addressing climate change and building more resilient coastal areas. And the newly launched MISHTI scheme is a welcome initiative that will help to protect India's mangroves for future generations.

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