

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 2403
TO BE ANSWERED ON 04.08.2025

Blue Carbon Project

2403. SHRI S JAGATHRATCHAKAN:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) the details regarding the total number of blue carbon ecosystem restoration projects under the National Mission for Clean Ganga and Coastal Restoration programmes during the years 2023-24 and 2024-25, State and project-wise;
- (b) the quantum of Union Government funding allocated specifically for mangrove restoration in Gulf of Mannar, Marine National Park and Pichavaram wetlands under the Nationally Determined Contributions framework;
- (c) the technical assistance provided by the Government for developing carbon credit mechanisms from Tamil Nadu's coastal restoration initiatives and revenue potential assessed; and
- (d) the integration of Traditional Ecological Knowledge from Tamil Nadu fishing communities in the Government's blue carbon project guidelines and implementation frameworks?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

(SHRI KIRTI VARDHAN SINGH)

(a) Blue carbon ecosystems such as mangroves, seagrass meadows, and salt marshes are coastal and marine habitats that naturally capture and store carbon dioxide from the atmosphere. As informed by the Ministry of Jal Shakti, the *Namami Gange Programme* (National Mission for Clean Ganga - NMCG) is a comprehensive river rejuvenation initiative. While it mainly focuses on sewage treatment, riverfront development, afforestation, wetland and biodiversity conservation, and public awareness, some of which indirectly support blue carbon sequestration. Under this programme, scientific afforestation along the Ganga has been undertaken based on a Detailed Project Report (DPR) by the Forest Research Institute (FRI), Dehradun. Since 2016–17, NMCG has funded State Forest Departments of Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, and West Bengal for plantations along the river. So far, a total of 33,024 hectares of plantation has been carried out under the programme. Details are as follows:

State wise plantation data (Year 2016-17 to 2022-23)	
State	Achievement (Area in ha.)
Uttarakhand	12306
Uttar Pradesh	9166

Bihar	8554
Jharkhand	884
West Bengal	2115
Total	33024

(b) India's Nationally Determined Contributions (NDCs) under the Paris Agreement do not specifically mention "blue carbon ecosystems" as a separate target. However, they emphasize increasing forest and tree cover to create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent by 2030. While not directly stated, the protection and restoration of blue carbon ecosystems like mangroves, seagrasses, and salt marshes support India's broader climate goals of mitigation and adaptation.

The Ministry has sanctioned a total amount of ₹ 220.43 lakhs to the State of Tamil Nadu for mangrove restoration activities, including those at Pichavaram, during the period from 2017–2018 to 2022–2023, under the “Conservation and Management of Mangroves and Coral Reefs” component of the National Coastal Mission.

Recently, to promote mangrove conservation, the Union Budget 2023–24 announced the Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI). Launched by the Ministry of Environment, Forest & Climate Change on 5th June 2023 (World Environment Day), MISHTI aims to enhance mangrove ecosystems for their high carbon storage capacity and role as coastal bio-shields. The initiative is being implemented through convergence with State CAMPA, MGNREGS, and other state schemes, with gap-funding from National CAMPA. The State of Tamil Nadu has not yet submitted a plan to seek funding under MISHTI.

(c) Government of India has notified the Carbon Credit Trading Scheme (CCTS) on 28th June 2023 under Energy Conservation (Amendment) Act, 2022. CCTS has two mechanisms namely, compliance mechanism and offset mechanism. The Indian government provides technical assistance to states for developing carbon credit mechanisms through various initiatives and bodies, including the Bureau of Energy Efficiency (BEE) and the National Steering Committee for the Indian Carbon Market (NSCICM). However, under CCTS no technical assistance have been given to Tamil Nadu or any other states.

(d) The Ministry currently does not have explicit guidelines or a dedicated implementation framework for Blue Carbon projects. However, restoration efforts targeting key Blue Carbon ecosystems—namely mangroves, seagrasses, and salt marshes—have been undertaken across all coastal States and Union Territories. These initiatives have actively involved local communities, leveraging their Traditional Ecological Knowledge (TEK) to enhance the effectiveness and sustainability of restoration outcomes.
