

GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 2750**  
ANSWERED ON 19/12/2024

**ASSESSMENT OF SHORELINE EROSION**

2750. DR. DHARMASTHALA VEERENDRA HEGGADE:

Will the Minister of **Earth Sciences** be pleased to state:

- (a) whether the Government has undertaken assessment of shoreline erosion and identified coastal areas subjected to sea erosion using remote sensing data and field observations during the last five years, including the coast of Karnataka;
- (b) whether the Government has any plans to rehabilitate the communities which are on the verge of losing their land due to shoreline erosion and rising sea levels; and
- (c) if so, the details thereof and the initiatives taken/proposed to be taken by Government to prevent coastal erosion along the Karnataka coast?

**ANSWER**

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR  
MINISTRY OF SCIENCES AND TECHNOLOGY  
AND EARTH SCIENCES  
(DR. JITENDRA SINGH)

- (a) Yes. Ministry of Earth Sciences (MoES) through National Centre for Coastal Research (NCCR), has undertaken assessment of shoreline erosion and identified coastal areas subjected to sea erosion along the entire Indian coast including Karnataka using satellite and in-situ observations. Under the shoreline mapping system, 526 maps were prepared for the entire Indian mainland coast for identifying vulnerable areas to coastal erosion in 1:25000 scale, along with 69 district maps, and 9 State and 2 UT maps. These maps were prepared based on the composites of extreme water levels recorded by the tide gauges and published literature, shoreline change rate estimated from satellite data, rate of sea level change and high-resolution topographic data from (Airborne Lidar Terrain Mapping, and Digital Terrain Models derived from Cartosat-1 data). A report on "National Assessment of Shoreline Changes along Indian Coast" was released in July 2018 and the report was shared with various Central and State Government agencies and stakeholders for implementing shoreline protection measures. An updated version of Atlas, along with a digital version of the report, containing all the maps, was released on 25<sup>th</sup> March 2022.
- (b) & (c) Yes. The Government of India is committed for taking proactive steps in combating coastal erosion and protection of coastal areas and the coastal communities.

Ministry had successfully demonstrated the innovative coastal erosion mitigation measures at Puducherry and Chellanam in Kerala, which helped in restoration and protection of coastal areas-lost beach at Puducherry and flooding at Chellanam. Fishing Village.

National Centre for Coastal Research (NCCR), through Ministry of Earth Sciences, is providing technical support to maritime States, including Karnataka, in monitoring of changes to the coastline, design of coastal protection measures at vulnerable stretches etc. The planning and execution of anti-sea erosion measures can be undertaken by the Govt. of Karnataka, as per own priority and from their own resources.

The Flood Management Scheme of Ministry of Jal Shakti, including anti-sea erosion schemes, are planned and executed by the State Governments with their own resources as per priorities of States. Union Government renders assistance to states which is technical, advisory, catalytic and promotional in nature.

In addition, based on the recommendations given by 15th Finance Commission to National Disaster Management Authority (NDMA), the guidelines for approval and release of funds for coastal and river erosion under National Disaster Mitigation Fund (NDMF) and policy on Resettlement of People affected by Erosion under National Disaster Response Fund (NDRF) have been approved and issued by MHA for effective rehabilitation of people displaced by coastal and river erosion.

MoEF&CC has notified Coastal Regulation Zone (CRZ) Notification, 2019 with a view to conserve and protect coastal stretches, marine areas and to ensure livelihood security to the fisher and other local communities including those from Karnataka. The coastal regulations, however, permit setting up of erosion control measures in the coast. The notification also provides for No Development Zones (NDZ) along various categories of coastal areas to protect India's coastline from encroachment and erosion.

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