

GOVERNMENT OF INDIA
 MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. 2101
 ANSWERED ON 04/08/2022

EROSION OF COASTAL LINE

**2101. SHRI M. SHANMUGAM;
 SHRI VAIKO:**

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the details of erosion of coastline of Indian mainland, along with loss estimated in terms of percentage;
- (b) whether atlas of Coastal Vulnerability Index (CVI) maps for the entire coastline of the country is prepared;
- (c) if so, the details thereof;
- (d) whether 15th Finance Commission recommended creation of National and State Disaster Risk Management Fund comprising a mitigation fund at the national and State levels, and a response fund; and
- (e) if so, steps being taken to mitigate the impact of coastline erosion in the country, the details thereof in future?

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

- (a) The National Centre for Coastal Research (NCCR), an attached office of the Ministry of Earth Sciences (MoES) has been monitoring shoreline erosion since 1990, using remote sensing data and GIS mapping techniques. Totally, 6907.18 km long coastline of the mainland has been analyzed for the period from 1990 to 2018. It is observed that (33.6%) of the coastline is under varying degrees of erosion for the past 28 years. The state-wise details of erosion (1990-2018) are given in the below table:

1990 – 2018					
Sl No	State		Coast Length (in km)	Coast length (in Km)	
				Erosion	
				Km	%
1	West Coast	Gujarat	1945.6	537.5	27.6
2		Daman & Diu	31.83	11.02	34.6
3		Maharashtra	739.57	188.26	25.5
4		Goa	139.64	26.82	19.2
5		Karnataka	313.02	74.34	23.7

6		Kerala	592.96	275.33	46.4
7	East Coast	Tamil Nadu	991.47	422.94	42.7
8		Puducherry	41.66	23.42	56.2
9		Andhra Pradesh	1027.58	294.89	28.7
10		Odisha	549.5	140.72	25.6
11		West Bengal	534.35	323.07	60.5
Total			6907.18	2318.31	
			%	33.6	

- (b) Yes sir.
- (c) INCOIS has carried out Coastal Vulnerability Index (CVI) mapping to assess the probable implications of sea-level rise along the Indian coast. This exercise has generated maps using seven input parameters: shoreline change rate, sea-level change rate, coastal elevation, coastal slope, coastal geomorphology, significant wave height and tidal range. An atlas composing 156 maps of the entire Indian coast on a 1:1 lakh scale was released in 2012.
- (d) Yes, Sir. The 15th Finance Commission recommended the creation of National Disaster Risk Management Fund (NDRMF) and State Disaster Risk Management Fund (SDRMF) comprising Mitigation Fund at the National and State level (NDMF/SDMF) and Response Fund at the National and State level (NDRF/ SDRF) for the award period from 2021-22 to 2022-26.
- (e) The Finance Commission has also made specific recommendations for “Mitigation Measures to Prevent Erosion” under NDMF and “Resettlement of Displaced People Affected by Erosion” under NDRF. To operate these funds, the Commission also suggested that NDMA and/ or Ministry of Home Affairs may develop suitable norms for mitigation measures to prevent erosion and both the Union and the State Governments develop a policy to deal with the extensive displacement of people caused by coastal and river erosion. At present, NDMA is in the process of preparing the suitable norms for mitigation measures and developing a policy to deal with the extensive displacement of people’.
