

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION No. 3867
ANSWERED ON 06/04/2023**

IMPACT OF THE RISING SEA LEVELS

3867. SHRI S. SELVAGANABATHY:

Will the Minister of **EARTH SCIENCES** be pleased to state:

- (a) whether Government has formulated any plans to rehabilitate people from low-lying coastal areas who may be adversely impacted due to rising sea levels in the coming decade and if so, the details thereof;
- (b) whether any steps have been taken to mitigate rising sea levels and coastal erosion and if so, the details thereof;
- (c) whether India has lost a portion of its original coastline due to rising sea levels and if so, the details thereof reflecting the change in coastline from 1950 to 2021; and
- (d) whether Government plans to offer assistance and rehabilitation to the victims of climate change?

ANSWER

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

- (a) Yes Sir. NDMA has prepared a draft policy on “Mitigation and Rehabilitation measures for people displaced by Coastal and River Erosion” to deal with the extensive displacement of people caused by coastal and river erosion.
- (b) Indian National Centre for Ocean Information Services (INCOIS) an autonomous organization of the Ministry of Earth Sciences (MoES) 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. A report on “National Assessment of Shoreline Changes along Indian Coast” was shared with various Central and State government Agencies and Stakeholders for implementing shoreline protection measures. MoES through its institutes is also providing technical solutions and advice to the State Governments and UTs to deal with coastal erosion threats.

- (c) Yes Sir. National Centre for Coastal Research (NCCR), Chennai an attached office of MoES is monitoring the 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 noted that 33.6% of the coastline is under varying degree of erosion, 26.9% is of accreting nature and the remaining 39.5% is in a stable state. The below table represents the state wise coastal erosion details.

Sl No	State		Coast Length (in km)	Coast length (in Km)					
				Erosion		Stable		Accretion	
				Km	%	Km	%	Km	%
1	West Coast	Gujarat	1945.6	537.5	27.6	1030.9	53	377.2	19.4
2		Daman & Diu	31.83	11.02	34.6	17.09	53.7	3.72	11.7
3		Maharashtra	739.57	188.26	25.5	477.69	64.6	73.62	10
4		Goa	139.64	26.82	19.2	93.72	67.1	19.1	13.7
5		Karnataka	313.02	74.34	23.7	156.78	50.1	81.9	26.2
6		Kerala	592.96	275.33	46.4	182.64	30.8	134.99	22.8
7	East Coast	Tamil Nadu	991.47	422.94	42.7	332.69	33.6	235.85	23.8
8		Puducherry	41.66	23.42	56.2	13.82	33.2	4.42	10.6
9		Andhra Pradesh	1027.58	294.89	28.7	223.36	21.7	509.33	49.6
10		Odisha	549.5	140.72	25.6	128.77	23.4	280.02	51
11		West Bengal	534.35	323.07	60.5	76.4	14.3	134.88	25.2
Total			6907.18	2318.31		2733.86		1855.03	
%				33.6		39.5		26.9	

- (d) Yes Sir. The 15th Finance Commission has 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). The Commission has also made specific recommendations for “Mitigation Measures to Prevent Erosion” under NDMF and “Resettlement of Displaced People Affected by Erosion” under NDRF.
