

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 26
TO BE ANSWERED ON 03.02.2025

Coastal Erosion

26. DR. HEMANT VISHNU SAVARA

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

- (a) whether the Government has identified the coastal areas which are facing serious erosion problems;
- (b) if so, the details thereof, Coastal line and State-wise;
- (c) the action plan drawn up to repair the damage caused by the coastal erosion; and
- (d) the steps taken/proposed to be taken by the Government to mitigate coastal erosion in the country including Palghar district in Maharashtra and whether there are any plans for constructing protective infrastructure, if so, the details in this regard?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) & (b)

Coastal erosion is one of the impacts of sea level rise along the Indian coastline. National Centre for Coastal Research, (NCCR), an attached office of Ministry of Earth Sciences (MoES), has monitored the shoreline changes for the entire Indian coastline using multi-spectral satellite images along with field-surveyed data for the period 1990-2018. As per NCCR study, it has been observed that 33.6% of the Indian coastline is under erosion, 26.8% is under accretion (growing) and 39.6% is in a stable state.

The state-wise shoreline change details are given below:

Sl No	State	Coast Length (in km)	Coast length (in Km)					
			Erosion		Stable		Accretion	
			Km	%	Km	%	Km	%
1	Gujarat	1945.6	537.5	28	1030.9	53	377.2	19
2	Daman & Diu	31.83	11.02	35	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

Sl No	State		Coast Length (in km)	Coast length (in Km)					
				Erosion		Stable		Accretion	
				Km	%	Km	%	Km	%
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%		39.6%		26.8%	

(c) & (d)

Government of India has taken various measures to mitigate coastal erosion, which includes:

(i) Ministry of Environment, Forest & Climate Change (MoEFCC) has issued CRZ Notifications with a view to conserve and protect the unique environment of coastal stretches and marine areas, besides livelihood security to the fisher communities and other local communities in the coastal areas and to promote sustainable development based on scientific principles taking into account the dangers of natural hazards, sea level rise due to global warming.

(ii) As per CRZ Notification, 2019, measures for control of erosion are permissible activity in CRZ areas. The Ministry has issued directions to Coastal States/UTs, for incorporation of Shoreline Management Plan in CZMP. National Centre for Sustainable Coastal Management (NCSCM), an organization under MoEFCC and NCCR is providing technical support to coastal States for implementation of coastal protection measures at vulnerable stretches and also involved in the preparation of Shoreline Management Plans. Further, MoEFCC has delineated the hazard line for the entire coast of the country. The hazard line is to be used by agencies in Coastal States as a tool for Disaster Management including planning of adaptive and mitigation measures. The hazard line features in the CZMP of the coastal States/Union territories are approved by the MoEFCC.

(iii) Coastal Protection Projects are planned & executed by respective Maritime States/ UTs. Central Government's role is largely advisory, technical support and catalytic in nature. These projects are generally funded by States/ UTs from their own fund or from multilateral funding or through Central Assistance. In some cases, Government of India has facilitated multilateral funding to States/ UTs in tackling the coastal erosion. The total expenditure incurred by 10 Maritime States/ UTs for protection of coastal erosion in coastline length of 227.965 Km in last 10 years is Rs 2641.39 Cr and the total project cost of proposed or on-going protection work in 10 States / UTs in next 5 years for the coastline length of 298.714 Km is Rs 7218.63 Cr.

(iv) Maharashtra Maritime Board (MMB) is the main agency associated with the works of coastal management in Maharashtra. The coastal protection structures are planned & implemented by MMB either through State's fund or through multilateral funding. The measures of erosion control in coastal areas are formulated and implemented by State of Maharashtra as per their priority. Maharashtra was one of the States under Sustainable Coastal Protection and

Management Investment Programme (SCP&MIP) which has implemented schemes with financial support from Asian Development Bank (ADB). SCP&MIP aims to address immediate coastal protection needs using environmentally and socially appropriate solutions, focusing on softer options such as artificial reefs, beach nourishments, and dune management. These strategies not only protect the coastline from erosion but also enhance income-generating opportunities for coastal communities in Maharashtra.

(v) As per information provided by Central Water Commission, Government of Maharashtra has carried out coastal protection work at 15 sites in Palghar for cumulative coastline length of 4.792 Km with project cost of Rs. 54.21 Crores in the last 10 years including protection at 12 sites in Palghar for coastline length of 2.393 Km with estimated project cost of Rs. 36.58 Crores.
