

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 2162
TO BE ANSWERED ON 07.08.2025

Coastal erosion & mitigation strategies in Gujarat

2162. SHRI NARHARI AMIN:

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

- (a) whether the Ministry is aware that over 25 lakh square metres of coastal area in Gujarat, including significant segments of Dandi, Shivrajpur, Suvali, Tithal and Dabhari beaches, has eroded, according to a study by the National Centre for Sustainable Coastal Management (NCSCM); and
- (b) whether Government is aware of the current status of coastal erosion along Gujarat's coastline, if so, the details thereof, district-wise?

ANSWER

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

(a) to (b): Some stretches of India's shoreline are subjected to varying degree of erosion and accretion due to natural causes or anthropogenic activities. National Centre for Sustainable Coastal Management (NCSCM) had carried out a sample study of 8 beaches in Gujarat namely Umbrat, Tithal, Suvalli, Mandavi, Dandi, Dabhari, Shivrajpur North and Shivrajpur South. National Centre for Coastal Research (NCCR), an attached office of the Ministry of Earth Sciences, Government of India has assessed the Shoreline changes for entire Indian Coastline using multi-spectral satellite images along with field surveyed data for the period 1990-2018.

As per the study of NCCR (1990-2018), 27.63% of the Gujarat coast is vulnerable to erosion, 19.39% is under accretion (growing) and 52.99% is in stable state. The district-wise details of Shoreline change (1990-2018) of Gujarat coast as per NCCR report is as below:

District Name	Coastal Length (In Km)*	Erosion		Stable		Accretion	
		Km	%	Km	%	Km	%
Valsad	63.92	37.48	58.64	14.90	23.31	11.54	18.05
Navsari	50.53	17.18	34.00	19.73	39.05	13.62	26.95
Surat	60.09	8.18	13.61	30.81	51.28	21.10	35.11

District Name	Coastal Length (In Km)*	Erosion		Stable		Accretion	
		Km	%	Km	%	Km	%
Bharuch	107.22	14.68	13.69	72.44	67.56	20.10	18.75
Anand	42.28	10.10	23.89	19.52	46.17	12.66	29.94
Ahmadabad	53.07	7.72	14.55	25.01	47.12	20.34	38.33
Bhavnagar	192.12	33.86	17.62	102.08	53.13	56.18	29.24
Amreli	79.52	8.46	10.64	64.38	80.96	6.68	8.40
Gir Somnath	115.15	44.40	38.56	65.43	56.82	5.32	4.62
Junagadh	38.11	21.24	55.73	14.91	39.12	1.96	5.14
Porbandar	94.59	50.98	53.89	39.21	41.45	4.40	4.65
Dev Bhumi Dwarka	265.93	61.88	23.27	176.87	66.51	27.18	10.22
Morbi	47.62	14.02	29.44	30.04	63.08	3.56	7.48
Jamnagar	182.51	48.56	26.61	106.69	58.46	27.26	14.94
Kachchh	552.95	158.76	28.71	248.89	45.01	145.30	26.28
Overall	1945.60	537.50	27.63	1030.90	52.99	377.20	19.39

*Represents the coastal length, taken for shoreline change analysis purpose.
