

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
LOK SABHA  
UNSTARRED QUESTION NO. 1371  
TO BE ANSWERED ON WEDNESDAY JULY 25, 2018**

**SHORELINE MAPPING**

**1371. SHRIMATI PRATYUSHA RAJESHWARI SINGH:**

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

- (a) whether the Government has completed the shoreline mapping programme for the coastal region of the country particularly in Odisha;**
- (b) if so, the details thereof with particular reference to Odisha coast;**
- (c) the details regarding vulnerable regions in Odisha coast for sea erosion during high tide period;**
- (d) whether any research activity has been undertaken by the Ministry to find out development of effective means to check sea erosion and if so, the details thereof; and**
- (e) the manner in which the Government furnishes and shares information and data regarding shoreline and seabed with the concerned State/district authorities for better coordination and common benefit of the country specially in Odisha?**

**ANSWER**

**MINISTER FOR MINISTRY OF EARTH SCIENCES  
MINISTRY OF EARTH SCIENCES  
(DR. HARSH VARDHAN)**

- (a) Yes, Madam.**
- (b) National Centre for Coastal Research (NCCR) an attached office of MoES is monitoring the Shoreline Changes along Indian Coast. The shoreline mapping of the entire main land of India has been completed and shoreline is mapped in 1:25,000 scale. Under this programme, about 6632 km long coastline distributed among nine coastal States and two Union Territories was analyzed using 26 years of satellite data for the period 1990-2016 and field verifications to estimate the shoreline change i.e. erosion, accretion and stable. From the analysis, it is found that 33% of coast was eroding, 29% was accreting and 38% was in stable state. The details for Odisha coast are summarized below**

SI No	States		Coast Length (in km)	Status of the coast					
				Erosion		Stable		Accretion	
				km	%	km	%	Km	%
1	East Coast	Odisha	549.50	153.80	28	113.52	21	282.18	51

- (c) About 550 kms along shoreline of Odisha coast spreading across six coastal districts is also mapped. The result of shoreline changes analysis for the period of 1990-2016 indicates that 28% of Odisha coast comes in erosion category, 21% stable and 51% of accreting nature. Erosion is mainly noticed in Jagatsinghpur and Kendrapara districts. Pocket erosion was also noticed at north of Gopalpur port, Devi River, Wheeler Island, Rushikulya River Island, Pentha, Gahirmatha, Satbhaya etc.
- (d) Yes, the Ministry of Water Resources in collaboration with the Space Application Centre (SAC) Ahmedabad has prepared an Atlas on shoreline changes which provides the extent of coastal sea erosion. Further, the Ministry of Environment and Forest and Climate Change (MoEF&CC) provides advice for mitigation options, monitoring measures to prevent and reduce significant adverse environmental and social impacts on the coast for sustainable development.
- (e) The NCCR has developed a web based application to provide the information on shoreline changes for the entire country including Odisha. Similarly, MoEF&CC through its National Centre for Sustainable Coastal Management (NCSCM), provides input and advice on all the components of Coastal environment impact assessment.

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