

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
UNSTARRED QUESTION NO. 4415
TO BE ANSWERED ON WEDNESDAY, March 29, 2017**

SHORELINE MAPPING

4415. SHRIMATI POONAM MAHAJAN:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the Government deploys shoreline vulnerability mapping technology in the country;**
- (b) if so, the details thereof including shoreline information of the coastal States, State-wise including Maharashtra and the expenditure incurred to map shorelines in the country during the last three years, year wise;**
- (c) the details and number of satellites utilised to map shoreline change rates in the country;**
- (d) whether the shoreline mapping technology measures the effects of global warming in the country; and**
- (e) if so, the details thereof?**

ANSWER

**MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(SHRI Y. S. CHOWDARY)**

- (a) Yes, Sir. The Indian National Centre for Ocean Information Services (INCOIS) has assessed shoreline change using the satellite data acquired during 1972-2000 in order to calculate the shoreline change rate. Shoreline change rate is one of the input parameters to calculate the coastal vulnerability index along the Indian coast.**
- (b) This work was carried out during the period 2007-2009 at INCOIS using the satellite data acquired during 1972-2000, State wise shoreline change rate calculated at 1:100000 scale are given below**

State	Length (km)*			
	Erosion	No change	Accretion	Total
Gujarat	933	650	573	2156
Maharashtra	309	518	114	941
Goa	43	131	19	193
Karnataka	67	229	39	334

Kerala	205	322	93	621
Tamil Nadu	286	489	159	934
Andhra Pradesh	185	473	430	1087
Orissa	153	220	125	498
West Bengal	863	750	314	1927
Lakshadweep	30	98	24	152
Andaman	366	1573	511	2449
Nicobar	286	200	317	803

***Length of coastline including the creeks, bays, deltas and estuary**

Satellite data were taken from open source Landsat of USA and Indian Remote Sensing (IRS) satellite of India data available at INCOIS from other projects were used; hence no expenditure was incurred towards data specific to this work.

(c) Data from the satellites - Landsat: MSS; TM; ETM decadal data sets (1972, 1990, 2000) and IRS:1C/D; Resources at data were used for this study.

(d) and (e) This study did not estimate specific impact due to climate change.