

**GOVERNMENT OF INDIA**  
**MINISTRY OF EARTH SCIENCES**  
**RAJYA SABHA**  
**UNSTARRED QUESTION No. 911**

**TO BE ANSWERED ON THURSDAY, JULY 17, 2014**

**INCREASE IN SEA LEVEL IN COASTAL AREAS OF GOA**

**911. SHRI SHANTARAM NAIK:**

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

- a) whether sea level had increased in some coastal areas of Goa, if so, the names of the coastal areas;
- b) the nature of problems faced by the villagers, and the assistance rendered by Central Government agencies in this regard; and
- c) whether monitoring of sea wave levels is done by any department of Government, if so the details thereof?

**ANSWER**  
**MINISTER FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND**  
**MINISTRY OF EARTH SCIENCES**  
**(DR. JITENDRA SINGH)**

- a) The average sea level rise trends along the Indian west coast has been about 3.0 mm/year during the last two decades. Sea level rise is a very slow phenomenon and can be because of physical factors like normal subsidence, coastal erosion and siltation of river channels along the coastline apart from global warming.
- b) An isolated incident of flooding on the Morjim beach during 2-6 January, 2014 occurred around mid-night for 3-4 consecutive days largely coinciding with the highest high tide (spring tide) of the year as per the gravitational tidal prediction tables of 2014.

The study conducted by the Pune based Central Water and Power Research Station (Union Ministry of Water Resources' Research) found out that over the years the problems of coastal erosion has accelerated and presently about 25kms is affected. Appropriate protection measures are addressed jointly by respective state governments and the Coastal Protection and Development Advisory Committee (CPDAC) of the Central Water Commission.

- c) Earth System Science Organization (ESSO) – Indian National Centre for Ocean Information Services (INCOIS) and Survey of India continuously monitor the sea level measurements all along the Indian coastline.

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