

**GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA**

UNSTARRED QUESTION NO:3663
ANSWERED ON:15.12.2011
MONITORING OF SEA LEVELS
Singh Shri Dhananjay

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether the Government monitors the sea levels around the Indian coastline;
- (b) if so, the details thereof;
- (c) the change in sea level around Indian coastline in the past ten years; and
- (d) the steps taken by the Government to control the rise in sea level so as to protect coastal ecosystems?

Answer

MINISTER OF STATE IN THE MINISTRY OF PLANNING, MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE MINISTRY OF EARTH SCIENCES (SHRI ASHWANI KUMAR)

(a) Yes, Madam.

(b) Survey of India has established 26 tide gauges for continuous measurements of sea level along the Indian coast. All of these tide gauge stations are transmitting data in real time to the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad under the Ministry of Earth Sciences (MoES). The data at selected locations have been monitored over decades, which has been achieved to assess the long term sea level variations.

(c) The holistic data of sea level reveals a high variability along the Indian coast line. The analysis of past tide gauge records for the Indian coastline regions gives an average sea level rise of 1.29 mm/year for the last 40 years. The local sea level rise at various places from the Indian Tide gauge data indicated the observed trends during the past century. Recent studies shows that the average trend of Indian Ocean sea level rise for the period 2004-2009 observed from altimetry is 6.5 ± 0.49 mm/yr. However, the time series of mean sea-level in the Indian Ocean region clearly shows that year to year variability dominates so that the value estimated in this study cannot be considered as representative of a long-term trend.

(d) Sea level rise is a relatively slow phenomenon occurring in the background of more dramatic manifestations like storm surges and tidal variations, normal deltaic subsidence, coastal erosion and siltation of river channels along the coastline. Appropriate protection measures arising out of the coastal erosion are addressed jointly by respective state governments and the Central Water Commission.