

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 2616
TO BE ANSWERED ON 19.03.2018

Submergence of Indian cities due to rise in sea level

2616. SHRI SAMBHAJI CHHATRAPATI:

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

- (a) whether scientists have concluded that sea level rise by 0.8 mm every year due to global warming, may lead to submergence of major coastal cities by the end of 2100 A.D.;
- (b) if so, which cities in India are likely to be affected; and
- (c) whether Government proposes to conduct research on its own to confirm the findings of scientists to take precautionary measures?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(DR. MAHESH SHARMA)

(a) to (c) According to the Fifth Assessment Report of Intergovernmental Panel on Climate Change published in 2014, global mean sea level rose by 0.19 [0.17 to 0.21] metres in the period 1901 to 2010, and will continue to rise during the 21st Century. Due to this rise, coastal systems and low-lying areas will increasingly experience adverse impact such as submergence, coastal flooding, and coastal erosion.

Further, as per India's Second National Communication submitted to the United Nations Framework Convention on Climate Change, sea level is projected to rise by 3.5 to 34.6 inches between 1990 and 2100, which may result in saline coastal groundwater, endangering wetlands and inundating valuable land and coastal communities. The most vulnerable stretches along the western Indian coast are Khambhat and Kutch in Gujarat, Mumbai, and parts of the Konkan coast and south Kerala. The deltas of the Ganga, Krishna, Godavari, Cauvery, and Mahanadi on the East Coast may be threatened, along with irrigated land and a number of urban and other settlements that are situated in them.

A National Centre for Sustainable Coastal Management has been established to promote research and development in the area of coastal management. An Integrated Coastal Management Project has been initiated with the objectives of building capacity for implementation of comprehensive coastal management and includes mapping, delineation and demarcation of hazard lines, all along the coast of India after taking in to account the sea level rise and other non climatic parameters such as shore line changes, tides and waves.
