

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 4167
TO BE ANSWERED ON 27.03.2023

Rise in Sea Level

4167. SHRI KUMBAKUDISUDHAKARAN:
SHRI K. MURALEEDHARAN:

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

- (a) whether the Government is aware of the report released by World Meteorological Organisation indicating a rise in sea level;
- (b) if so, the details thereof along with the steps taken to mitigate the same, if not, the reason therefor;
- (c) the details of progress made in the conservation of mangroves and corals under the National Coastal Mission Programme; and
- (d) the budgetary expenditure on the Research and Development, infrastructure and warning systems to mitigate the loss of lives and property, till now?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI ASHWINI KUMAR CHOUBEY)

(a) Government is aware of the matter. Many national and international research organizations, and multilateral institutions continue to assess issues related to sea-level rise in keeping with regularly updated data and increased scientific knowledge on the subject. One such report titled 'Global Sea-Level Rise and Implications' has recently been published by the World Meteorological Organization in February 2023. Changes in sea level take place over timespans of several decades to centuries and the determination of the exact rate of change is subject to uncertainties.

(b) Indian National Centre for Ocean Information Services (INCOIS), Ministry of Earth Sciences has prepared the Coastal Vulnerability Index (CVI) maps for the entire coastline of India at a 1:100000 scale by using parameters such as shoreline change rate, sea-level change rate, coastal elevation, coastal slope, coastal geomorphology, significant wave height and tidal range. Other studies have been done on Multi Hazard Vulnerability Mapping to identify potential areas of coastal inundation for the mainland of India at a 1:25000 scale using data on extreme water levels, coastal erosion, sea-level change, and high-resolution topography.

Further, this Ministry under the Integrated Coastal Zone Management Project (ICZMP) has demarcated the hazard line along the entire coastal belt of the country, including the intertidal areas. The hazard line is indicative of the shoreline changes, including the sea level rise due to climate change and is a projection of impact due to sea level rise, and shoreline changes over a long period of time viz. over 100 years. This line is to be used by the Coastal State agencies concerned as a tool for Disaster Management for the coastal environment, including planning of adaptive and mitigation measures.

(c) The Government seeks to conserve and enhance mangroves and corals through promotional and legal measures. The mangrove cover in the country is rising and has increased 71 square km. between 2017 and 2021. The long-term health of corals is dependent on Greenhouse Gas emissions worldwide and their impacts on the world's seas and oceans.

The promotional measures are being implemented through a central sector scheme namely conservation and management of mangroves and corals under National Coastal Mission Programme. Under this Programme, projects for conservation and management of mangroves are formulated and implemented in the participating coastal States and Union Territories. Regulatory measures are implemented through Coastal Regulation Zone (CRZ) Notification (2011 & 2019) under the Environment (Protection) Act, 1986; the Wildlife (Protection) Act, 1972; the Indian Forest Act, 1927; the Biological Diversity Act, 2002; and rules under these Acts as amended from time to time.

(d) Expenditure on R&D, infrastructure and warning systems to mitigate the loss of lives and property, is undertaken across several Ministries and institutions at the Centre such as Ministry of Earth Sciences, Indian Meteorological Department, National Disaster Management Authority, Indian Space Research Organization, Department of Science and Technology, this Ministry as well as other Ministries connected with infrastructure. State / UT government departments and universities are also involved in such activities at varying scales.
