

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**RAJYA SABHA**  
**UNSTARRED QUESTION NO.1001**  
TO BE ANSWERED ON 15.12.2022

**Increase in sea level**

1001. SHRI MASTHAN RAO BEEDA:

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

- (a) the details of research project embodied on climate change by the Central Government;
- (b) the availability of baseline data and advanced elevation data to predict sea-level rise;
- (c) the details of the set-up of Tide-Gauge Network in India and specifically in the State of Andhra Pradesh; and
- (d) the details of coastal Regulation Zone regulations and reasons for relaxation given from time to time by the Central Government?

**ANSWER**

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

(SHRI ASHWINI KUMAR CHOUBEY)

(a) The Government stands committed to addressing the global collective action problem of climate change through multilateralism and resolute domestic actions, including, improving the understanding of the subject through various research endeavours. The Government is fully aware that research and knowledge generation are critical aspects of the fight against climate change.

Climate change is a cross-cutting issue spanning various Ministries/ Departments and institutions under them. Research on climate change is mainly sponsored by the Department of Science and Technology, Ministry of Earth Sciences (MoES), Ministry of Environment, Forest and Climate Change, Indian Space Research Organisation (ISRO), Ministry of Agriculture and Farmers Welfare, and Council of Scientific and Industrial Research. Sectoral aspects of climate change are also studied by different Ministries/Departments concerning sectors like agriculture, water resources, human health, power, renewable energy, transport, urban issues / development, etc. Further, a large number of universities and government research institutions such as the Indian Institute of Technologies (IITs), Indian Institute of Science (IISc), Central and State Universities and their departments also carry out climate change related research.

(b) Indian National Centre for Ocean Information Services (INCOIS), an autonomous institute of MoES has acquired the baseline Airborne Lidar Terrain Mapping (ALTM) elevation data from National Remote Sensing Centre (NRSC) under ISRO for the Tsunami Inundation modelling and vulnerability mapping. This data is available for the mainland Indian coast up to two kilometres from the coast and would be used for predicting the sea-level rise.

(c) As part of Indian Tsunami Early Warning System, INCOIS has established a real-time network of 36 tide gauges at different locations along the Indian coast to monitor the tsunami waves and provide timely advisories. It has established 4 tide gauges in Andhra Pradesh at the following locations.

S.No.	Station Name	Latitude ( <sup>0</sup> N)	Longitude ( <sup>0</sup> E)
1.	Visakhapatnam	17.683	83.283
2.	Kakinada	16.933	82.25
3.	Machilipatnam	16.145	81.178
4.	Krishnapatnam	14.25	80.133

(d) The Ministry of Environment, Forest and Climate Change had notified the Coastal Regulation Zone (CRZ) Notification in the year 1991 *vide* S.O.114(E), dated 19<sup>th</sup> February 1991 which was superseded by Coastal Regulation Zone Notification 2011 issued *vide* S.O. 19(E) dated 6<sup>th</sup> January 2011 and subsequently by Coastal Regulation Zone Notification 2019 issued *vide* the Notification G.S.R. 37(E) dated 18<sup>th</sup> January 2019, with a view to ensuring livelihood security to the fisher communities and other local communities, living in the coastal areas, to conserve and protect coastal stretches, its unique environment and its marine area and to promote development through sustainable manner based on scientific principles taking into account the dangers of natural hazards in the coastal areas, and sea level rise due to global warming. As per the said Notifications, coastal areas are declared as Coastal Regulation Zone, wherein setting up and expansion of industries, operation and process are restricted and require prior clearances for permitted and regulated activities as per provisions of the said Notifications.

The CRZ Notification 2019 will, however, be effective, once the Coastal Zone Management Plan (CZMP) as per the said Notification is prepared or updated by the respective States / UTs and the CZMP as per provisions of CRZ Notification, 2011 shall continue to be followed for appraisal and CRZ clearance to such projects till such time.

The CRZ Notifications are revised or amended based on representation from various Coastal States and UTs, besides other stakeholders.

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