

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 2249
TO BE ANSWERED ON 05.08.2024

Coral Bleaching

2249. SHRI KARTI P CHIDAMBARAM

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

- (a) the details of mass coral bleaching events during the last five years.
- (b) the details of the steps taken by the Government to address the recent coral mass bleaching event in the Lakshadweep Islands,
- (c) the steps taken by the Government for the protection and conservation of barrier reefs, fringing reefs and atolls in the country; and
- (d) the details of the impact of mass coral bleaching on the local economy, namely tourism and fishermen along with the steps taken by the Government to compensate them?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) & (b): Coral mass bleaching is a natural phenomenon across the global waters due to change in the global climate change followed by increase in sea surface temperature. However, corals have resilience to recover depending upon the restoration of the normal sea conditions. Coral-bleaching events have been reported during March 2024 in Lakshadweep. During 2023, 2022, 2021 and 2020, the events of coral bleaching were not significant.

As per information received from Department of Environment & Forest of Lakshadweep Administration, coral transplantation activities are conducted to boost up the corals. Integrated Island Management Plan also provides protection for coral reefs. Zoological Survey of India (ZSI) conducts studies on extent of coral bleaching as part of Long Term Coral Reef Monitoring Program. Indian National Centre for Ocean Information Services (INCOIS), Hyderabad has provided coral bleaching alert services based on sea surface temperature data for Indian coral environs since 2011. Further, INCOIS has extended its services to include marine heat wave monitoring, which is crucial for understanding the variability of marine heat waves in Indian waters. In addition, INCOIS conducts studies in the coral ecosystems of the Lakshadweep Islands to enhance the understanding of coral reef dynamics and validate the coral bleaching advisory services.

(c) &(d): Government of India has taken steps to protect and conserve barrier reefs, fringing reefs and atolls in the country through various regulatory and promotional measures, which include:

- i. Coral species are listed under schedule -I under Indian Wildlife (Protection) Act, 1972, which provides highest protection to the coral reefs.
- ii. The Coastal Regulation Zone (CRZ) Notification, 2019, promulgated under Environment (Protection) Act 1986, has specific focus on conservation and management plans of Ecologically Sensitive Areas (ESAs), like corals and coral reefs and prohibit developmental activities and disposal of wastes in the fragile coastal ecosystems.
- iii. Ministry of Environment, Forest Climate Change has initiated a long-term programme on Coral restoration and Marine Biological Station, Zoological Survey of India is involved in monitoring and restoration of coral ecosystem in Lakshadweep since last five years.
- iv. Central Marines Fisheries Research Institute (CMFRI) has undertaken studies to understand ecological changes affecting coral reefs. CMFRI has initiated a comprehensive national project aimed at investigating the resilience potential of various coral reefs in India by integrating advanced climatic modelling, deep-learning, and ecological research and develop resilience-based management actions ensuring the long-term sustainability of coral reef ecosystems.

Coral bleaching is a sporadic event in India, and such incidents do not have major impact on local economy such as tourism and fishermen as of now.
