GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
STARRED QUESTION NO. *410
ANSWERED ON 02/04/2026

ASSESSMENT OF MARINE LIVING RESOURCES

***410**. SHRI ASHOKRAO SHANKARRAO CHAVAN:

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the Ministry is undertaking assessment and monitoring of marine living resources in India's Exclusive Economic Zone (EEZ) and if so, the details thereof;
(b) the number of scientific surveys conducted during the last three years for estimation of fishery resources and marine biodiversity;
(c) whether the data generated through these surveys are being used to support sustainable fisheries management and marine conservation and if so, the details thereof; and
(d) the steps taken by the Ministry to strengthen scientific research and monitoring of marine ecosystems in Indian waters?

ANSWER
THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR
MINISTRY OF SCIENCE AND TECHNOLOGY
AND EARTH SCIENCES
(DR. JITENDRA SINGH)

(a) to (d): A statement is laid on the table of the House.

STATEMENT LAID ON THE TABLE OF THE RAJYA SABHA IN REPLY TO (a) to (d) OF STARRED QUESTION NO.*410 REGARDING **'ASSESSMENT OF MARINE LIVING RESOURCES'** FOR ANSWER ON **2ND APRIL 2026**

(a) Yes Sir. The Centre for Marine Living Resources and Ecology (CMLRE), an attached office of the Ministry of Earth Sciences, has been established with the primary mandate of assessment and monitoring of marine living resources in India's Exclusive Economic Zone (EEZ) and for developing management strategies for their conservation. The programmes under which this work is being undertaken are as follows:

i. Marine Living Resources (MLR) Programme of CMLRE for survey, assessment and monitoring of marine living resources in the Indian EEZ.
ii. Deep Ocean Mission (DOM), under which CMLRE is the nodal agency for exploration and conservation of deep-sea biodiversity in India's EEZ, particularly in biodiversity hotspots such as seamounts.
iii. In addition, ICAR-Central Marine Fisheries Research Institute (ICAR-CMFRI), Kochi is also conducting comprehensive and continuous programmes for assessment and monitoring of marine living resources across India's territorial waters and EEZ. The assessment and monitoring framework operated by ICAR-CMFRI rests on two distinct but complementary pillars:

    (a) Landings based Production Monitoring
    (b) Life History Traits based Stock Assessment

(b) A total of 22 research cruises were conducted during the last three years for estimation of fishery-resource-related parameters and marine resource assessment. 17 research cruises were undertaken in the Bay of Bengal and Arabian Sea, 1 cruise was taken in the Indian Ocean region and 2 cruises each were undertaken in the Lakshadweep and Andaman seas respectively. These scientific cruises were done for mapping the living and fisheries resource assessment. In addition, the Fisheries Survey of India (FSI) and ICAR-CMFRI conduct annual stock assessment surveys and provide national status reports such as National Stock assessment (2022) and the Indian Ocean Tuna Commission (IOTC) linked fisheries data submissions (2023-24).

(c) Yes Sir. The data generated through these surveys are being utilized for fishery resource and habitat assessment, identification of biodiversity hotspots and spawning periods/breeding grounds of fish species, ecosystem studies including ocean acidification, and development of biodiversity/genetic databases, thereby supporting sustainable fisheries management and marine conservation. Further, the Marine Living Resources programme of CMLRE incorporates advanced technologies and multidisciplinary approaches, thereby improving monitoring systems and enabling better assessment of ocean health. These efforts support evidence-based decision-making for conservation and sustainable use of marine resources. CMLRE employs advanced and innovative biodiversity assessment techniques, including environmental DNA (eDNA) metabarcoding and genomic analyses, alongside conventional sampling methods. These approaches enable both qualitative and quantitative assessments of biodiversity.

(d) The steps taken by the Ministry to strengthen scientific research includes implementation of the Deep Ocean Mission for deep-sea biodiversity exploration and conservation including:

i. Use of the FORV Sagar Sampada for multidisciplinary marine research
ii. Strengthening of ocean observation systems through glider missions, drifters and Argo floats deployments
iii. Augmentation of marine biodiversity databases through IndOBIS and related scientific capacity-building efforts.

In addition, 'Bhavasagara' is a designated national-level Marine Biodiversity Referral Centre established at CMLRE, Kochi. It acts as a repository for deep-sea faunal collections from the Indian Exclusive Economic Zone (EEZ). At present, the repository houses a total of 3,560 voucher specimens, of which more than 70% represent deep-water and open-ocean species.

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