

**GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
LOK SABHA
STARRED QUESTION NO. *149
TO BE ANSWERED ON WEDNESDAY, 13TH DECEMBER, 2023**

MoU for Cooperation in Marine Science and Ecology

* 149. SHRIMATI CHINTA ANURADHA:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the details of the Memorandum of Understandings (MoUs) signed between India and Vietnam towards promotion of scientific and technical cooperation in marine science and ecology;
- (b) the projected impact of the same;
- (c) the details of other such MoUs signed for cooperation in the field of marine science;
- (d) whether the Government is in talks with other countries for signing more such MoUs; and
- (e) if so, the details thereof and if not, the reasons therefor?

**ANSWER
THE MINISTER OF EARTH SCIENCES
(SHRI KIREN RIJJU)**

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

**STATEMENT LAID ON THE TABLE OF THE LOK SABHA IN REPLY TO PARTS
(a) to (e) OF STARRED QUESTION NO.*149 REGARDING ‘MoU FOR
COOPERATION IN MARINE SCIENCE AND ECOLOGY’ FOR ANSWER ON
WEDNESDAY, DECEMBER 13TH, 2023**

- (a) A Memorandum of Understanding (MoU) has been signed on 17th December 2021 between Ministry of Earth Sciences (MoES), Government of India and Ministry of Natural Resources and Environment (MONRE), the Government of Vietnam for scientific and technical cooperation in marine science and ecology for knowledge sharing and capacity building. National Centre for Coastal Research (NCCR), an attached office of MoES from India and Vietnam Administration of Seas and Islands (VASI) under MONRE, are working on Marine Science and Ecology and the delegation from Vietnam has visited during October 2023 and worked out plan of action.
- (b) The project benefits/results includes Capacity building and knowledge sharing of best practices of coastal conservation, disaster risk reduction, mitigation of coastal erosion and also identification of pilot locations for implementation of coastal protection strategies.
- (c) Details of other MoUs signed for cooperation in the field of marine sciences are listed in the below table.

S.No	Country with which India has MoU
1.	Centre for Environment, Fisheries and Aquaculture Science (CEFAS), UK signed an MoU in 2019 for marine litter and micro plastics research.
2.	The India – Norway Ocean Dialogue was signed on 8th January, 2019 for evolving best practices for governing coastal and marine areas and maritime cooperation and ocean research.
3.	Under the MoU at SI No 2, Norwegian Ministry of Climate and Environment, Norway signed Letter of Intent (LoI) on the 18th February, 2020 for Integrated Ocean Management
4.	The French Research Institute for Exploitation of the Sea (IFREMER) IFREMER, France on July, 2023 for Deep Sea Technologies.
5.	Ministry of Fisheries, Marine Resources and Agriculture of the Republic of Maldives on August 2022 for marine scientific research
6.	The Government of India established the Sustainable Coastal and Ocean Research Institute (SCORI) in Fijion May 2023 to promote multilateral cooperation with pacific islands countries on ocean sciences and climate change

7.	A PoC was signed with the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (FORMAS) during June 2022 along with DST and DBT for marine litter research.
8.	Under MoU between MoES and NOAA signed during April 2008, RAMA moorings are being deployed and maintained in the Indian Ocean for measurement of oceanographic and meteorological data to understand the thermohaline structure and numerical modeling for improved prediction of monsoon.
9.	Japan Agency for Marine Earth Science and Technology (JAMSTEC), Japan and National Centre for Coastal Research (NCCR), signed a MoU on Sep, 2021 on the Application of Artificial Intelligence and Machine Learning in marine litter pollution research, Microplastic pollution and Assessment in the Arctic region.

(d)& (e) No proposals are pending with the Ministry of Earth Sciences for signing of MoUs with other countries for cooperation in the field of marine sciences.
