GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION NO. 686
ANSWERED ON 05/02/2026

INDIA'S BLUE ECONOMY

686. DR. SIKANDER KUMAR:

Will the Minister of **EARTH SCIENCES** be pleased to state:

(a) the details of specific initiatives taken by Government to promote seaweed cultivation and to develop Andaman & Nicobar Islands as a hub for India's Blue Economy initiatives;
(b) whether Government focuses to enhance Self-Help Groups and women's participation to supplement household income in order to strengthen the Vocal for Local and Local for Global vision;
(c) if so, the details thereof; and
(d) whether Government has taken any specific initiatives to scale up seaweed production to meet the target of 1.12 million tonnes by 2030 and if so, the details thereof?

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

(a) The Government of India is promoting seaweed cultivation, along with marine fish farming, as a key component for developing the Andaman & Nicobar Islands as a hub for the Blue Economy. The Council for Scientific and Industrial Research's (CSIR) -Central Salt and Marine Chemicals Research Institute (CSMCRI) has undertaken the project 'Prefeasibility studies and establishment of pilot-scale farming of commercial seaweeds in Andaman coast'. It has conducted a comprehensive analysis of 25 different locations in order to identify the most optimal sites for seaweed farming. This in-depth investigation has identified areas with the most favourable environmental conditions and nutrient availability for the successful growth and cultivation of seaweed. The seaweed species Gracilaria edulis, Gracilaria debilis, Gracilaria salicornia, and Kappaphycus alvarezii were tested using floating bamboo raft, tube net, net bag, and monoline methods. Commercial seaweed farming operations have been successfully established in Hathi Tapu (South Andaman), Mayabunder (Middle Andaman), and Diglipur (North Andaman) using Gracilaria edulis and Kappaphycus alvarezii. Further, National Institute of Ocean Technology (NIOT), an autonomous institute under Ministry of Earth Sciences has launched the first-ever open-sea Marine Fish Farming and Seaweed Cultivation project in the Andaman Sea focussing on deep-water seaweed cultivation. In addition, CSIR has initiated the Seaweed Mission to generate knowledge and innovations that will help make seaweed cultivation a remunerative, eco-friendly, sustainable, and scalable form of agriculture.

(b) & (c) Yes Sir. Under Seaweed mission implemented by CSIR, more than 800 self-help groups (SHGs) in Tamil Nadu have adopted Kappaphycus cultivation as means of their livelihood. The Seaweed research has resulted in the development of a new seaweed industry generating additional employment opportunities and revenue. Seaweed technologies have been developed and transferred to 12 companies for commercialization. About 5000 fishermen were trained so-far under various schemes, especially in Tamil Nadu, Gujarat, Andhra Pradesh. The Government has undertaken targeted financial and institutional measures to promote seaweed cultivation through women's SHGs. Central funding and support from the National Fisheries Development Board (NFDB) are being utilised for training, demonstrations and direct assistance to coastal communities, with special emphasis on fisherwomen and women-led SHGs, including support for value addition, local processing and marketing. The Department of Fisheries (DoF) has also issued technical guidelines on seed/seedling import and culture protocols, which focus on beneficiary clusters and explicitly recognise fisher families and women's SHGs as primary beneficiaries, ensuring access to quality seed material, technical know-how, biosecurity safeguards and market linkages. Further, convergence with Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) and PMMSY has being promoted by leveraging SHGs, Joint Liability Groups (JLG) and Farmer Producer Organisations (FPOs) as institutional platforms for capacity building, micro-credit, group marketing and entrepreneurship across the seaweed value chain.

(d) Yes Sir. The Government has taken specific initiatives to scale up seaweed production to achieve the target of 1.12 million tonnes by 2030, primarily under the Pradhan Mantri Matsya Sampada Yojana (PMMSY). The Government has made significant investments to promote the seaweed sector, including an allocation of ₹194.09 crore for key infrastructure projects such as the establishment of a Multipurpose Seaweed Park in Tamil Nadu and a Seaweed Brood Bank in Daman and Diu. To expand cultivation capacity, approvals have been accorded for 46,095 seaweed rafts and 65,330 monoline tube nets across coastal regions. Initiatives have also been undertaken to foster collaboration between small and large enterprises to strengthen seaweed production, processing and export value chains. In addition, Central Marine Fisheries Research Institute's (CMFRI) Mandapam centre has been identified as the Centre of Excellence for seaweed cultivation and as the Nodal Institute for the establishment of the Nucleus Breeding Centre (NBC) by the Department of Fisheries, Government of India, under the Pradhan Mantri Matsya Sampada Yojana (PMMSY). It has been launched to support research, improved farming practices and seed bank development, with the potential to benefit over 20,000 farmers and generate more than 5,000 employment opportunities. Further, guidelines for the import of live seaweeds issued in 2024 aim to support research, improve seed quality and ensure the regulated expansion of seaweed cultivation. Over the last five years, CMFRI has installed a total of 5,268 rafts and 112 monoline tube nets for demonstration purposes and has organised 169 training programmes for more than 14,000 stakeholders.

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