

**GOVERNMENT OF INDIA
MINISTRY OF FISHERIES, ANIMAL HUSBANDRY AND DAIRYING
DEPARTMENT OF FISHERIES**

**RAJYA SABHA
UNSTARRED QUESTION No. 1814
TO BE ANSWERED ON 11th DECEMBER, 2024**

Livelihoods of fishermen affected by changing marine conditions

1814 Shri Jose K. Mani:

Will the Minister of *Fisheries, Animal Husbandry and Dairying* be pleased to state:

- (a) measures taken by Government to address the impact of climate change on fisheries and to protect the livelihoods of fishermen affected by changing marine conditions;
- (b) programs which are being conducted to provide training and capacity building for fishermen to enhance their skills and knowledge; and
- (c) the details regarding any recent regulatory changes affecting the fisheries sector, and how these changes are impacting fishermen and fisheries entrepreneurs?

ANSWER

**THE MINISTER OF FISHERIES, ANIMAL HUSBANDRY AND DAIRYING
(SHRI RAJIV RANJAN SINGH ALIAS LALAN SINGH)**

(a) The fisheries research institutes under the aegis of Indian Council of Agricultural Research (ICAR), Government of India have been conducting research regularly for understanding the impacts of climate change in order to develop climate resilient strategies for sustainability of fisheries and aquaculture. As a part of National Innovations in Climate Resilient Agriculture (NICRA) project, the ICAR- Central Marine Fisheries Research Institute (CMFRI) have identified 31 coastal villages as "Climate Smart Villages" in the maritime States/UTs. These villages and around 865 beneficiaries coming under these villages have received training to develop alternative livelihoods. Further, in order to increase preparedness and adaptive capacity of fishers against climate change, ICAR Institutes have also conducted climate campaigns and awareness programmes in the states like Odisha, Assam, West Bengal, and Kerala.

To enhance the economic resilience of coastal communities impacted by climate change, the Department of Fisheries, Government of India under the *Pradhan Mantri Matsya Sampada Yojana* (PMMSY) has identified 100 coastal fishermen villages situated close to the coastline as Climate Resilient Coastal Fishermen Villages (CRCFV). The program promotes climate-resilient fisheries through initiatives such as seaweed cultivation, artificial reefs, sea ranching and the promotion of green fuel. Safety and security measures for fishermen and fishing vessels, economic activities like ornamental fisheries, and support programs like insurance, livelihood and nutritional support, Kisan Credit Cards, and training also supported. The activities in the identified coastal fishermen villages are need-based facilities, including common facilities like fish drying yards, fish processing centers, fish markets, fishing jetties, ice plants, cold storages and emergency rescue facilities. In addition, the Indian National Centre for Ocean Information Services (INCOIS) under the Ministry of Earth Sciences (MoES) of the Government of India provides early warnings for algal blooms, marine heatwaves, and potential overturning zones to protect fishermen and small vessel users from climate change impacts.

(b) Fisheries Research Institutes under ICAR are undertaking training and capacity building programme to adopt climate-friendly, resilient technologies or green practices, capacity-building to make fishers climate-smart, development of climate-smart villages, and promotion of coastal aquaculture cage fish farming to improve the livelihood of coastal fishers. The capacity building and training programmes covered by ICAR Institutes include Responsible Fisheries Management, Ecosystem Based Fisheries Management (EBFM), Marine Fisheries Monitoring Control and Surveillance, Code of Conduct for Responsible Fisheries (CCRF), Marine Environment and Biodiversity Management, Impacts of Climate Change, Adaptation and Mitigation, Marine Pollution Management, Artificial Reefs, Coastal Resilience and Fisher Empowerment, Skill development, Employment Generation for Women Entrepreneurs and Marine fisheries insurance etc. Further, INCOIS also plays a pivotal role by providing trainings to stakeholders on range of advisory services like Potential Fishing Zones (PFZ), Early Warning Systems, Oceanographic Process and data collection for accurate predictions of ocean state.

(c) The Government of India has amended Coastal Aquaculture Authority (CAA) Act in 2023. The Amended act has provision for regulating all activities connected to aquaculture including the newer forms of environment friendly coastal aquaculture activities such as cage culture, seaweed culture, bi-value culture, marine ornamental fish culture, pearl oyster culture etc. which can be done in coastal areas and mostly within CRZ. These activities have the potential to generate substantial revenue and create ample employment opportunities for coastal fishing communities affected by climate change.
