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India launches 30,000-tonne seaweed farming initiative

A farming project that aims to produce 30,000 tonnes of seaweed a year has been launched in the Lakshadweep archipelago, off the southwest coast of India.

The administration of the islands has prioritised seaweed farming as the next major development driver of the islands, after fisheries, coconut and tourism. This has kicked off by a massive demonstration farming project, which has now been launched in nine of the archipelago's inhabited islands, with the technical support of the ICAR-Central Marine Fisheries Research Institute (CMFRI).

The initiative follows CMFRI studies that "revealed immense potential for production of quality seaweeds in serene and pollution-free lagoons of Lakshadweep for high-end utilisation like the pharmaceuticals, food and nutraceuticals", according to the institute. The indigenous red algae, Gracilaria edulis and Acanthophora spicifera are the species being farmed in nearly 2500 bamboo rafts, benefitting 100 families belonging to 10 women self-help groups in different islands.

"Known for its unique tuna fisheries and myriads of beautiful corals, reef fishes and other creatures, now the marine sphere of the islands are more likely to be known as the seaweed farming hub of India soon," said Dr K Mohammed Koya, a scientist at CMFRI, in a press release.

Recent studies by the CMFRI revealed an unprecedented growth performance of indigenous seaweed species in various lagoons of Lakshadweep, with nearly 60-fold growth in 45 days for Gracilaria edulis. Following the early success, the Lakshadweep administration teamed up with the CMFRI for multi-locational trial farming in the islands of Kiltan, Chetlah Kadmath, Agatti and Kavaratti during 2020-2021, with promising results.

"The studies revealed that the island territory has a potential of producing nearly 30,000 tonnes of dry seaweed per year, worth Rs 75 cr [$10.2] by farming only 1 percent (200ha) of its 21,290 ha of lagoon area (inhabited islands only) at the rate of a modest 150 tonnes per hectare", said Dr Koya.

Terming it as a climate-smart initiative, he added: "The sea being the major sink of carbon and the seaweeds well known for their carbon sequestration properties, the farming of seaweed at such a scale would sequester nearly 6500 tonnes of carbon dioxide per day, adding a huge carbon credit to the nation while providing a climate resilient livelihood to the islanders".

Led by coordinated efforts of various Departments of the administration such as Fisheries, Environment & Forests and Rural Development as well as the CMFRI, the demonstration focuses on popularisation of seaweed farming in the islands, capacity building of stakeholders and pre-feasibility and impact assessment of seaweed farming for a planned development of seaweed farming enterprise in the islands.

Providing a sound scientific basis for a sustainable seaweed farming enterprise, the CMFRI and the Lakshadweep Krishi Vigyan Kendra of the institute is at further studies for assessing the carrying capacity of the lagoons, spatial mapping of suitable farming sites, standardising farming methods for year-round farming in deeper areas and means to ensure quality seeding materials of indigenous seaweed species jointly with the Lakshadweep administration.