

A Technical Compilation on

Custom Designed Indigenous

HDPE RAFTS

Sustainable Solution for a Greener Future in Seaweed Farming along Gujarat Coast

Prepared By: Divu et al., 2024

Funded By:





Indian Council of Agricultural Research
Central Marine Fisheries Research Institute





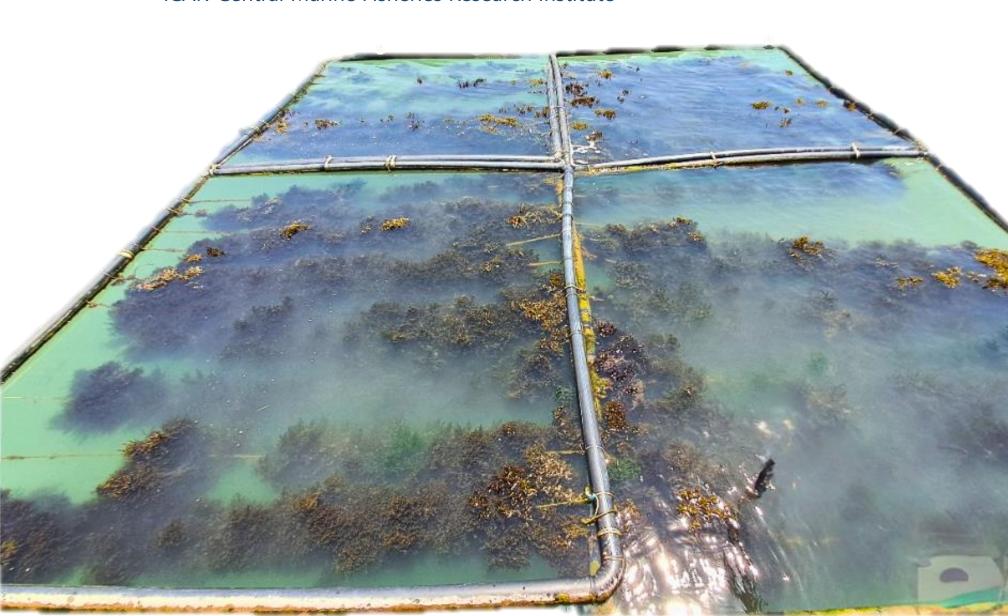


HDPE RAFTS

Sustainable Solutions for a Greener Future in Seaweed Farming Along Gujarat Coast



ICAR-Central Marine Fisheries Research Institute



Published By:

Dr. A. Gopalakrishnan Director ICAR-Central Marine Fisheries Research Institute, Ernakulam North P.O., Kochi -682018, Kerala

Prepared & Compiled by

Divu D.
Suresh Kumar Mojjada
Swathi Lekshmi PS
Abdul Azeez
Jayesh D. Devaliya
Prachi Siddharth Bagde
Sagar Jadav
Mayur S. Tade
Aarsha Subramanian
Ramshad T.S.
Dhanush Janarthanan
V.V.R. Suresh

© ICAR-CMFRI 2024

All rights reserved. Material contained in this publication may not be reproduced in any form without the permission of the publisher

CMFRI Booklet Series No.34/2024

Citation

Divu D., Suresh Kumar Mojjada, Swathi Lekshmi PS, Abdul Azeez, Jayesh Devaliya, Prachi Siddharth Bagde, Sagar Jadav, Mayur S. Tade, Aarsha Subramanian, Ramshad TS, Dhanush Janarthanan, V V R Suresh (2024)

A Technical Compilation on: Custom Designed Indigenous HDPE RAFTS: Sustainable Solutions for a Greener Future in Seaweed Farming Along Gujarat Coast





"Despite its vast coastline, India's contribution to global seaweed production is minimal.

Traditional bamboo rafts used are not suitable for the rougher waters found in many other coastal regions of India."



Fragile

Struggles with strong waves and rough seas

Limited

Ineffective in exposed and open sea.





Global Appetite: Seaweed demand surges worldwide.

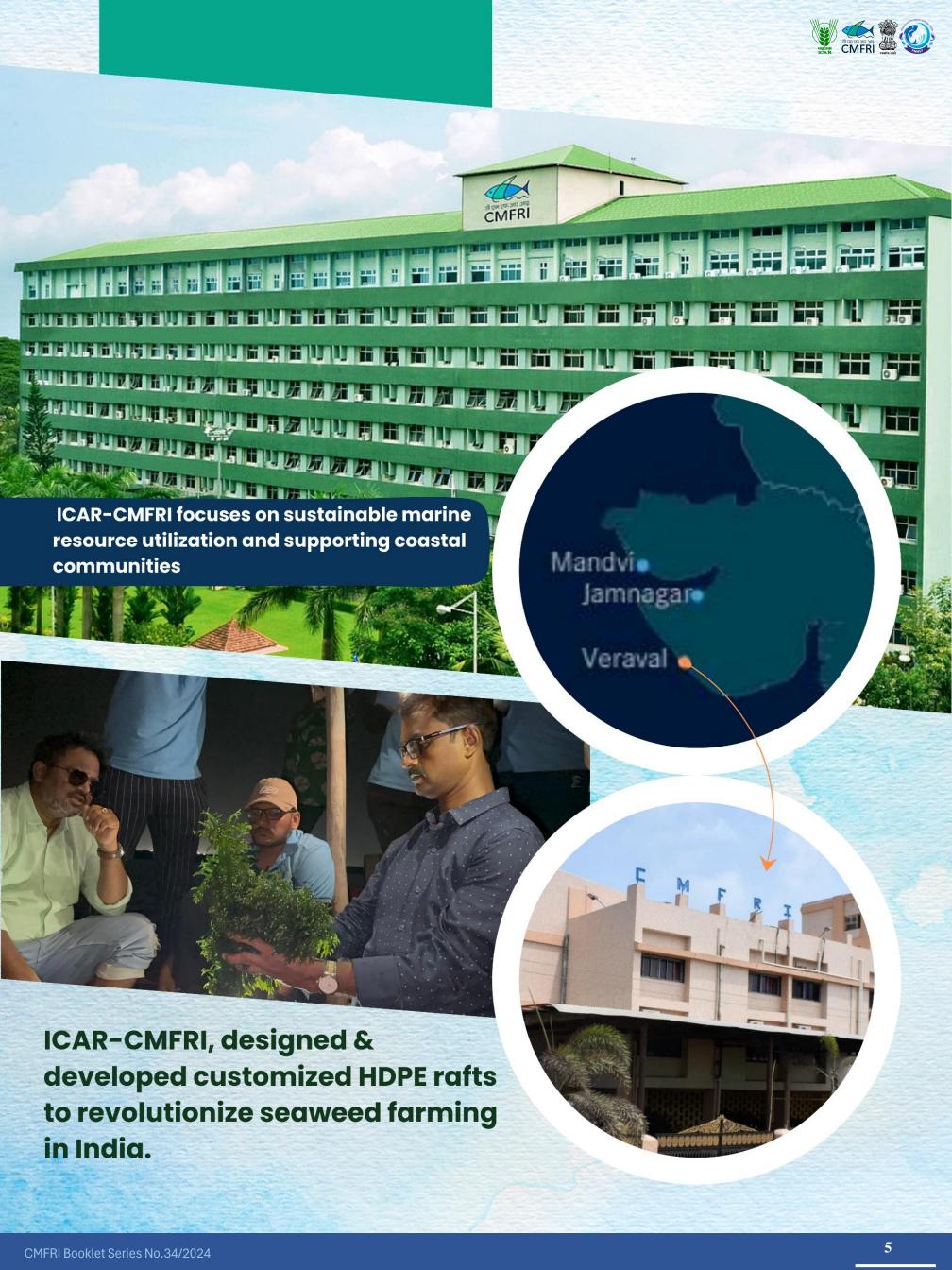


3



to 1.1 million tonnes by 2025-2026.

REVOLUTIONIZING INDUSTRY, BOOSTING **COASTAL ECONOMIES**





Construction Process of HDPE Rafts

- 1. Preparation: HDPE pipes and elbows ready for assembly.
- 2. Fusion Welding: Pipes and elbows joined through butt fusion welding.
- 3. Foam Injection: Polyurethane foam injected to enhance buoyancy.
- 4. Final Assembly: HDPE rafts ready for deployment



CMFRI Booklet Series No.34/2024 CMFRI Booklet Series No.34/2024





Seaweed Seedling Affixation

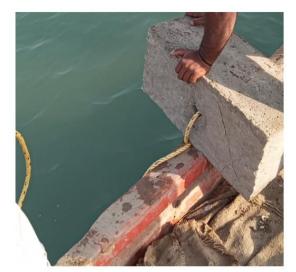




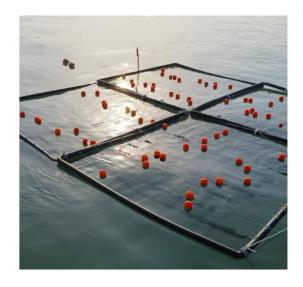






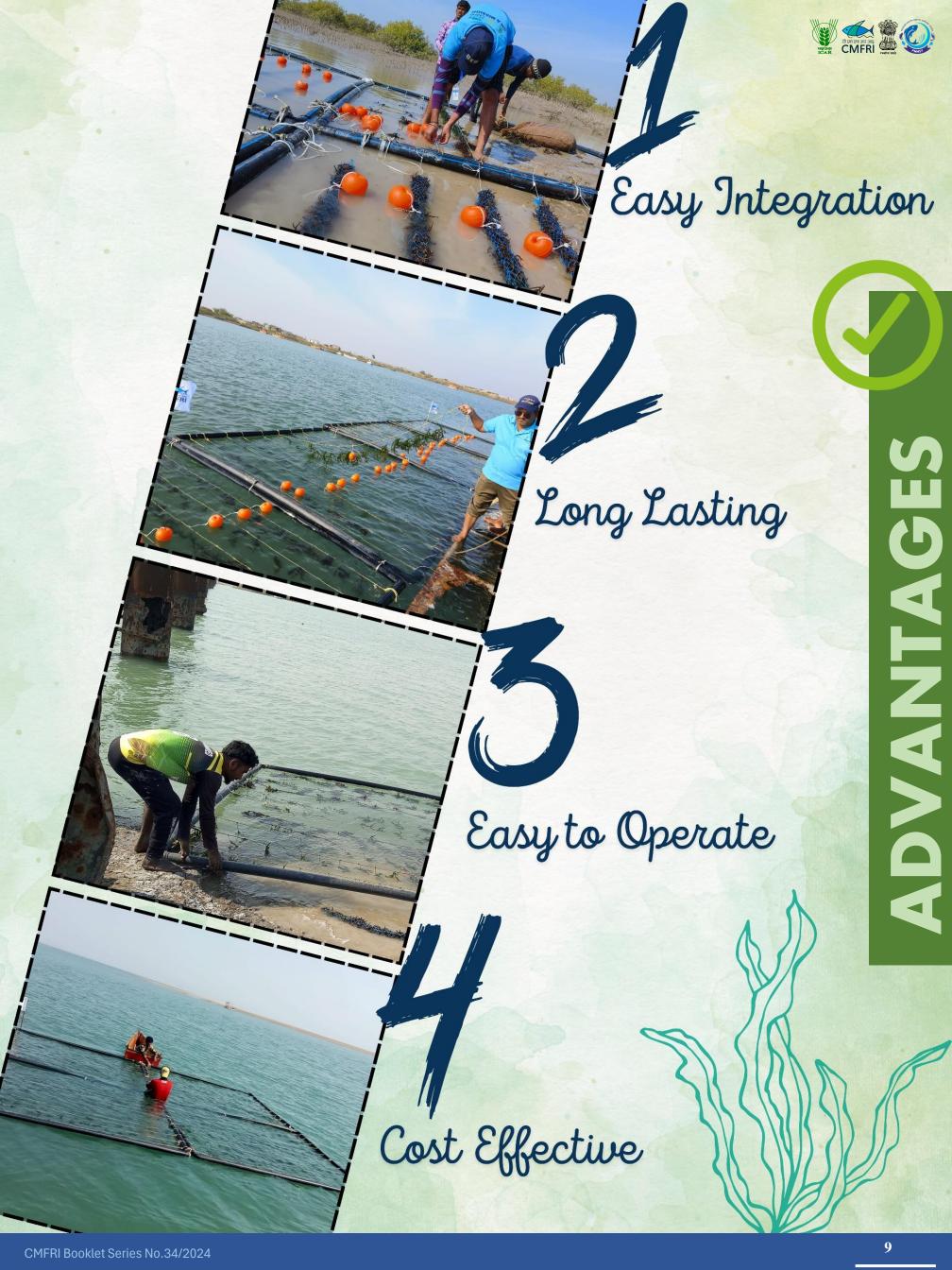


Mooring System Setup



(Open Sea Deployment)







... the design is tailored for diverse sea conditions.

IFRI Booklet Series No.34/2024 CMFRI Booklet Series No.34/2024

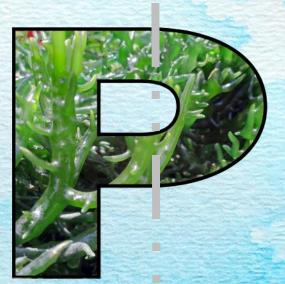


Withstand harsh marine conditions.



Suitable for various sea conditions across the coast.







Rafts



Supports sustainable seaweed farming practices.



Creates jobs and supports coastal economies.



TECH REVOLUTION

ADVANCEMENTS TRANSFORM SEAWEED FARMING ALONG GUJARAT COAST.



Proven Success: Boost seaweed yield and economic growth.







OCEANIC ACHIEVERS















