

Join us virtually

Virtual Event



Fish4Thought

Securing equitable food, nutrition, and livelihood benefits of artisanal fishing communities in Bangladesh

Wednesday, 19 February 2025

15:00-16:00 (GMT+8)

Online via Zoom



Speakers



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SECURING EQUITABLE FOOD, NUTRITION, AND LIVELIHOOD BENEFITS OF ARTISANAL FISHING COMMUNITIES IN BANGLADESH

Presented by: Mohammad Mokarrom Hossain, PhD
19 February 2025



ECOFISH II: December 2019–November 2024

- 2017- Rohingya refugee influx from Myanmar:
 - socio-economic stress on host fishing communities
 - ecological stress on the Bay of Bengal
- Expanding the ECOFISH^{BD} best practices to ECOFISH II



ECOFISH II: Goal & Objectives

Improved social and ecological resilience of coastal fisheries securing equitable food, nutrition and income benefits for artisanal fishing communities

IR1: Improved management & governance of natural resources- foundation of fisheries

Sub-IR1.1
Improved science outputs for decision-making

Sub-IR1.2
Improved adaptive co-management and fisheries governance

Sub-IR1.3
Improved policy support

IR2: Improved equity and resilience of food, nutrition and livelihood

Sub-IR2.1
Improved livelihood resilience of coastal fishing communities

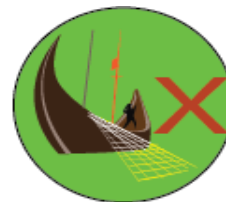
Beneficiary Households Profile: *Vulnerabilities of Artisanal Fishing Communities*



Earned 2.23 US\$
per day



53% - Secondary
occupation



90% - no boat &
net ownership



Inequality - women
are more vulnerable



76% of households
are affected by the
climate change



Active fishing
days- 157

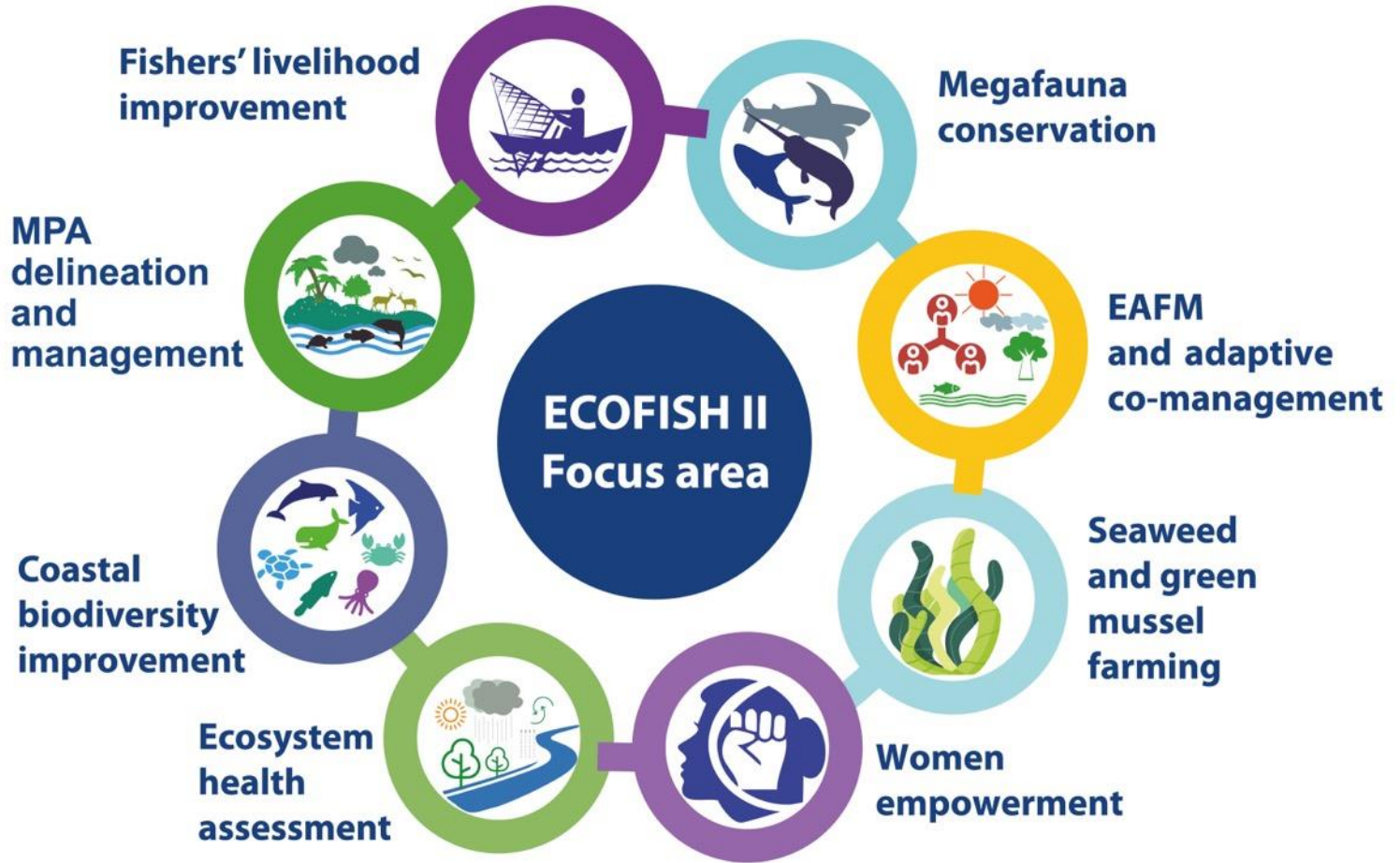


83% of household
showed lower
dietary diversity



Showed lower
resilience
capacities



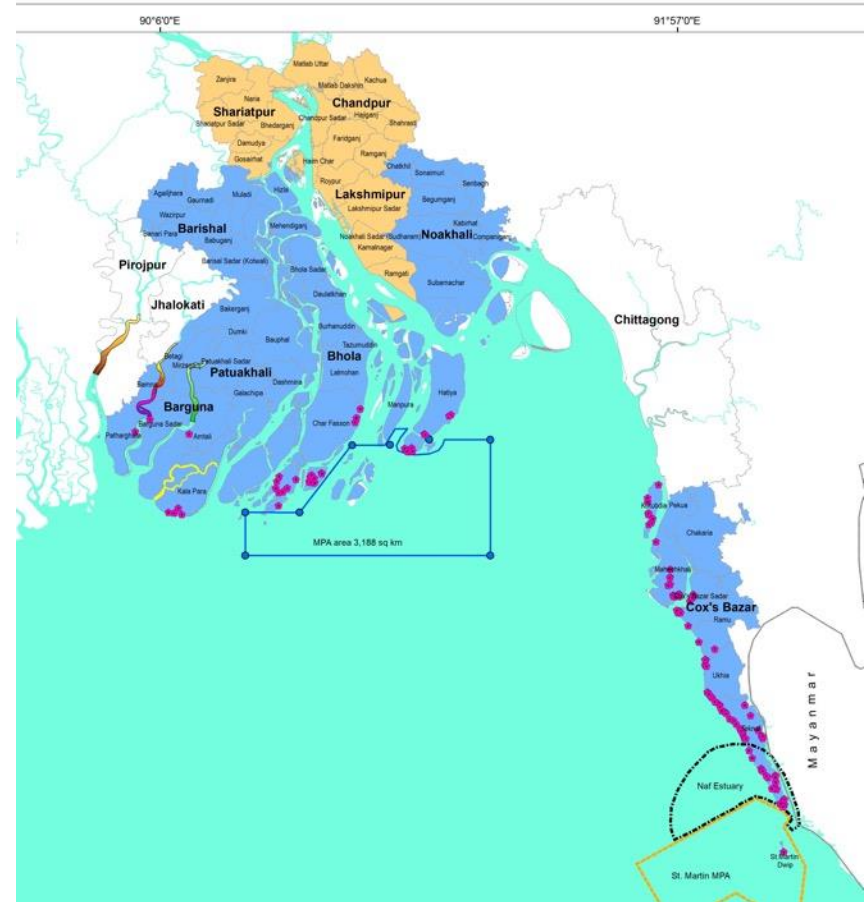


ECOFISH II Direct Intervention Area

13 Upazilas of 05 Districts:

07 ECOFISH II Field offices

- Zone of Resilience (ZOR)
Cox's Bazar District
- Lower Meghna River Ecosystem (MRE)
- *Patuakhali, Barguna Districts*
- Nijhum Dwip MPA



ECOFISH II: Partners

Public departments:

Department of Fisheries (DoF)- collaboration and consultation, field and HQ level

Universities:

Chattogram Veterinary and Animal Sciences University (**CVASU**)

Noakhali Science and Technology University (**NSTU**)

Shahjalal University of Science and Technology (**SUST**)

Bangabandhu Sheikh Mujibur Rahman Agricultural University (**BSMRAU**)

Sher-e-Bangla Agricultural University (**SAU**)

NGOs: IUCN, Shushilan, and TMSS

Private sector actors: Coxsbazarshop.com, Agro Products (AP) Group, Noakhali

Science for Decision Making and Adaptive Co-management

Ecosystem health improvement

Citizen Science-based catch monitoring

Fish landing and price monitoring

Megafauna conservation

Stock status observation

Adaptive Co-management

Fisheries Governance: Stakeholders engagement

Support DoF for improved policy formulation



Ecosystem health improvement

- **140 Blue Guard**
- **363 awareness campaign**
- **36.0 MT plastics and discarded nets removed**
contributed reducing pollution
- **Water quality monitored regularly**
- **1,750 School boys and girls** attended
Campaign on Biodiversity Conservation and
Ecosystem Health



Biodiversity assessment and conservation



Marine fish larvae assessed from **06** coastal spots and **25** larval families identified



DNA barcoding of **23** species completed



3 new marine fish identified in the Bay of Bengal



236 Megafauna and **149** turtle hatchlings live released and documented



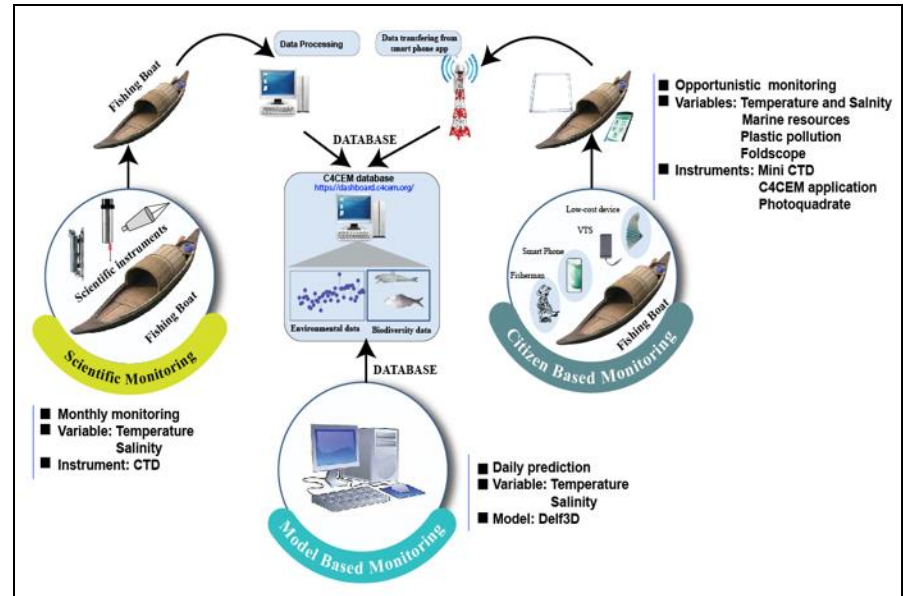
Bio-physical assessment for **03** new MPA declaration



Fisheries dynamics: Citizen Science approach

On-board CPUE and fish landings & price monitoring

- 50 Citizen Scientist (CS)
- 11 Landing Center Facilitator (LCF)



Stock Status for fisheries management decision making

- Data collected- **17** important marine fish species for stock status observation
- **Hilsa Shad, Indo-Pacific King Mackerel, Red Snapper, Bombay Duck, Spotted Catfish-** healthy;
- **Black Pomfret, Fourfinger Threadfin-** moderate depletion;
- **Chinese Pomfret, Sona Sea Catfish-** critical depletion



Bombay duck



Ribbon fish



Black Pomfret



Black-spotted Croaker



Tripple tail



Queen fish



Sea catfish



Indian mackerel

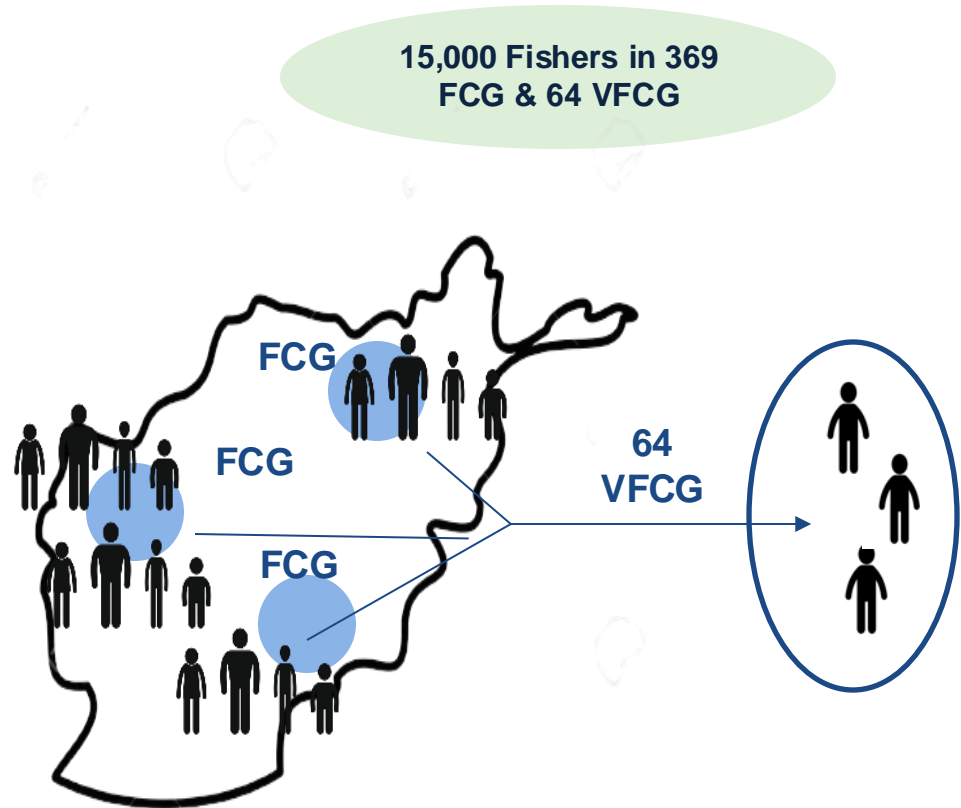


Sardine

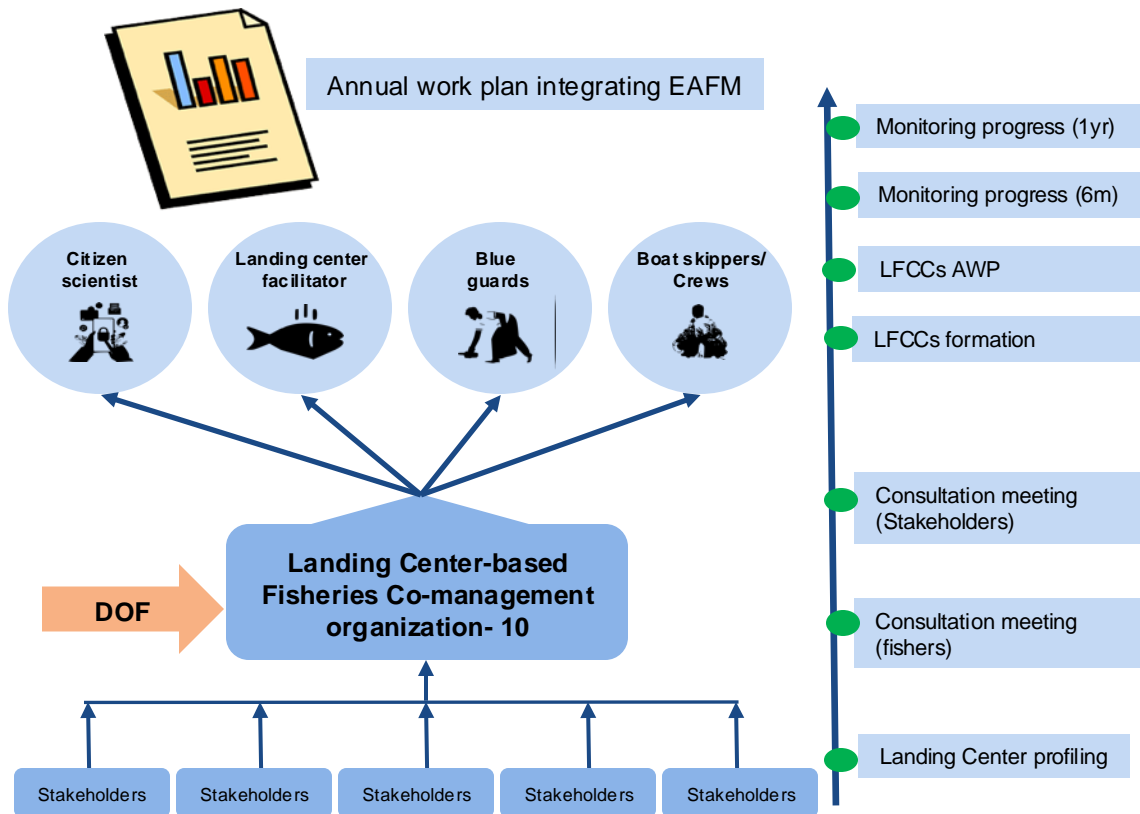
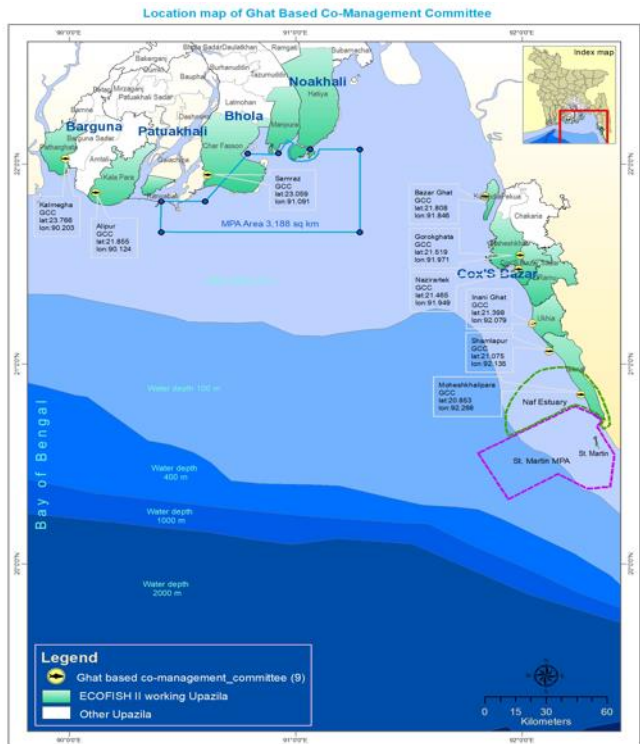


Big-eye ilish

Formation and Strengthening of Co-management Organizations



Landing Center-based Fisheries Co-management Organization



Fisheries Governance: Stakeholders Engagement



**48
DoF and
stakeholders
trained on
EAFM**

**Prepared
EAFM Plan**



Fisheries Governance: Stakeholders Engagement

1,835

Boat skippers & owners trained on biodiversity conservation, safety at sea & responsible fishing



Fisheries governance initiatives

735

Participants training on reducing IUU fishing

497

Awareness events on fishing ban, climate change, plastic pollution



522

Participants training and distribution of First-Aid Box and Life Jackets

Support DoF for Improved Policy Formulation

Delineation for **Three** new
MPAs in Bangladesh
GOB declared Naf MPA **734.17**
km², raised total MPA **6.82%**

Nijhum Dwip **MPA**
Management Plan

Low Trophic Extractive
Mariculture
Strategy

Hilsa Transboundary
Management Framework

Revised **Hilsa Fisheries**
Management Action Plan
(HFMAP)

Management guideline for
native catfish- Pangas

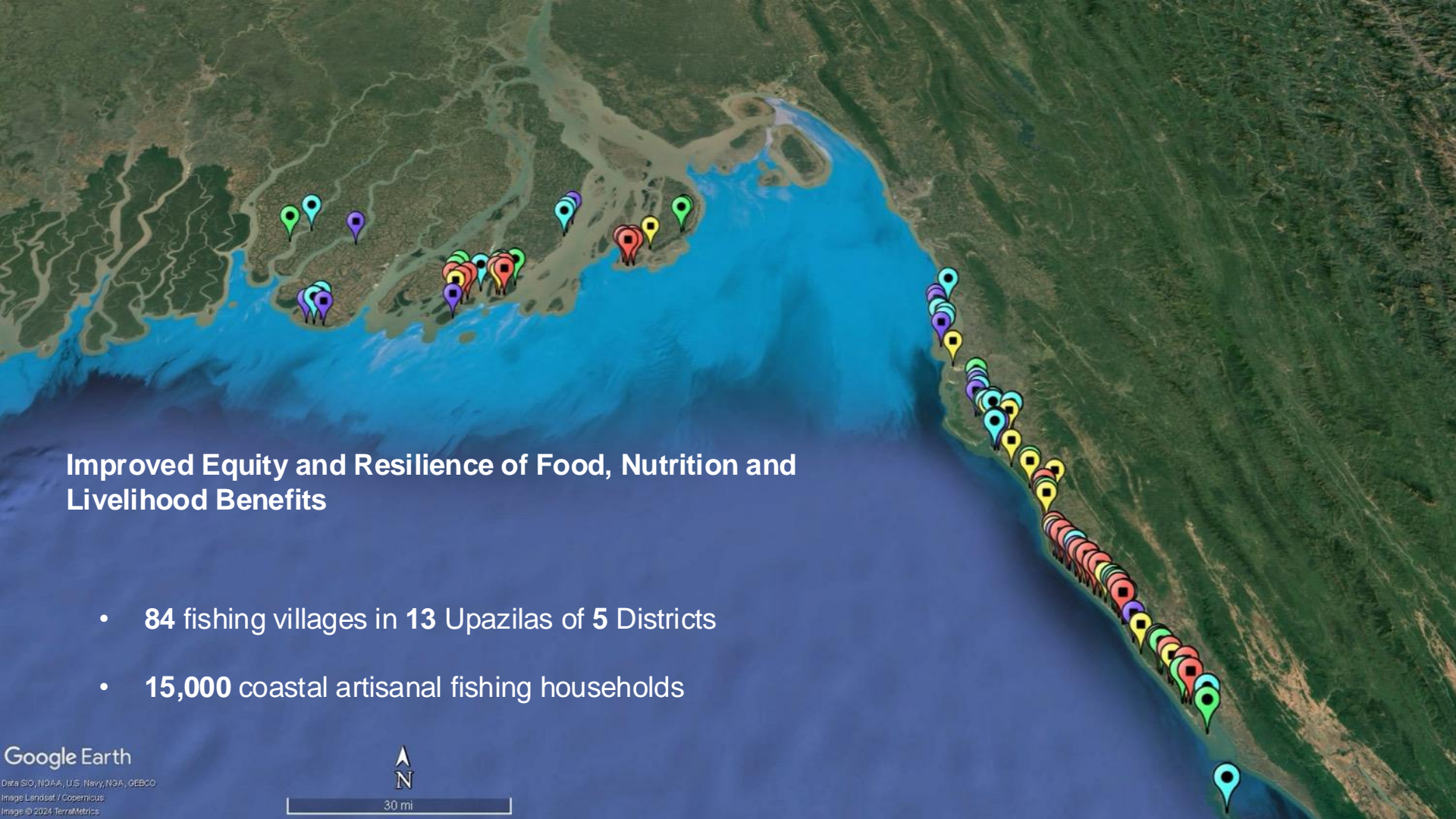
Studies for Future Research, Policy Formulation and Development Initiatives

Fisheries Blue Economy: Opportunities, Challenges and Way forward

Exploration of **Non-conventional Fishery Products and potentials**

Developed Organizational Modalities for
Landing Centre-based Fisheries Co-
management Organizations

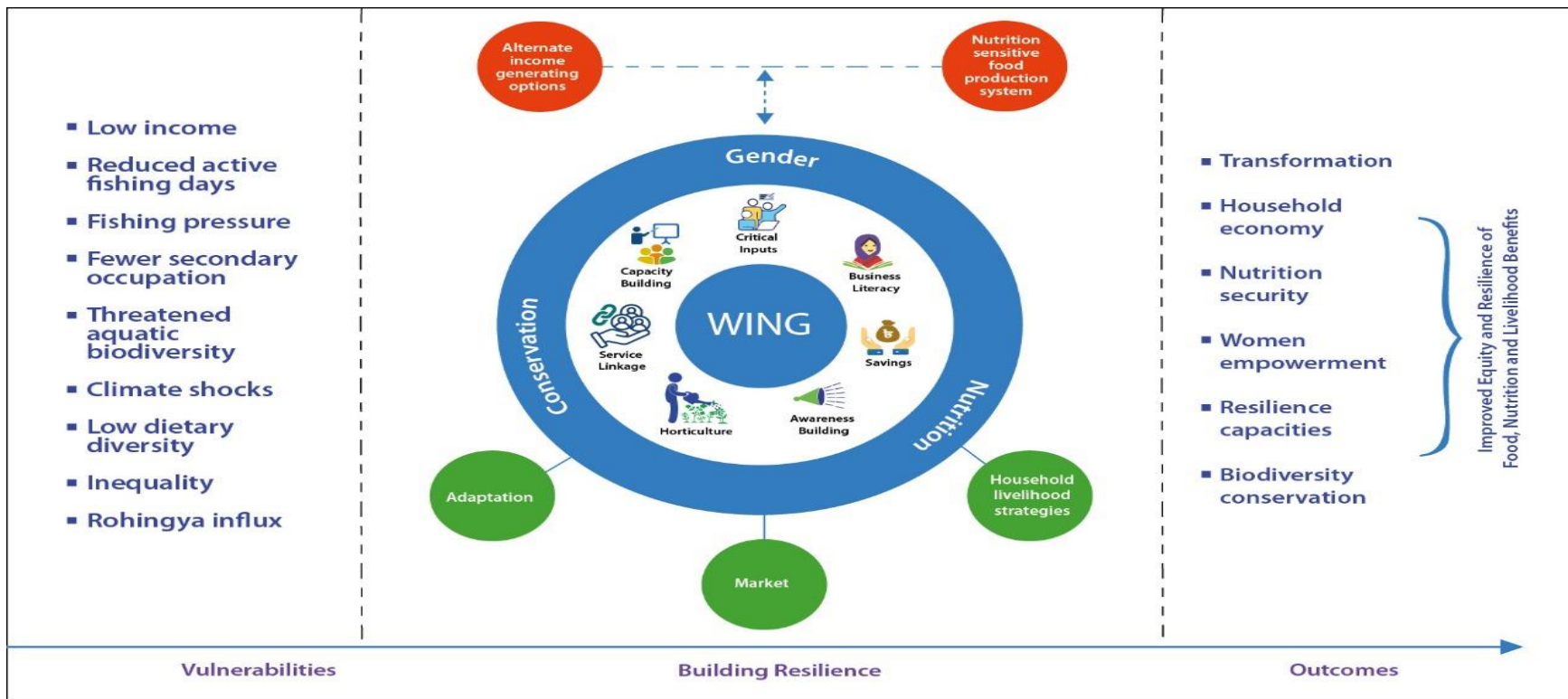
Assessed **ghost gears** and recommendations to
protect marine environment health



Improved Equity and Resilience of Food, Nutrition and Livelihood Benefits

- **84** fishing villages in **13** Upazilas of **5** Districts
- **15,000** coastal artisanal fishing households

Livelihood Resilience: APPROACH



The drivers of livelihood change



Developed 222 women groups with 6,558 women



15,000 women trained and engaged in income generating activities



15,000 HHs supported for year-round vegetable production



Beneficiaries connected with public services and private actors



6,118 women engaged in savings activity



4,128 sessions in 206 business literacy school



1,690 nutrition education sessions in WING



8,000 healthy food plate with message on dietary diversity



8,000 booklets on nutrition and gender awareness



Conservation awareness to women



Research and development on seaweed



Research and development on green mussel culture



1,390 women supported for safe dried fish production and marketing



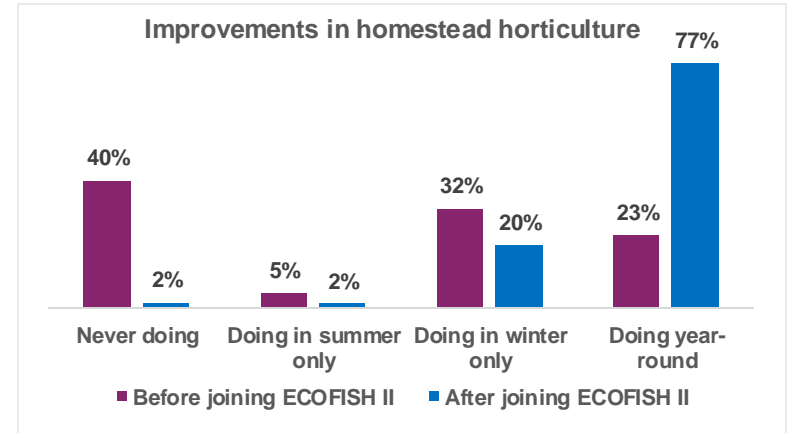
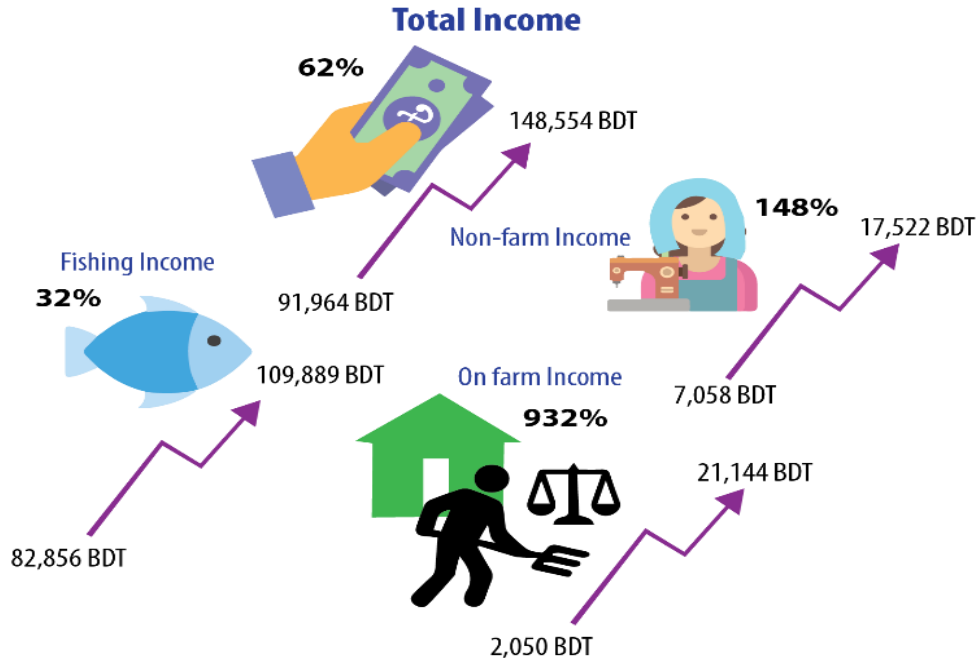
Prepared seaweed and fish powder



Tried nutrition benefit and market orientation of seaweed and fish powder

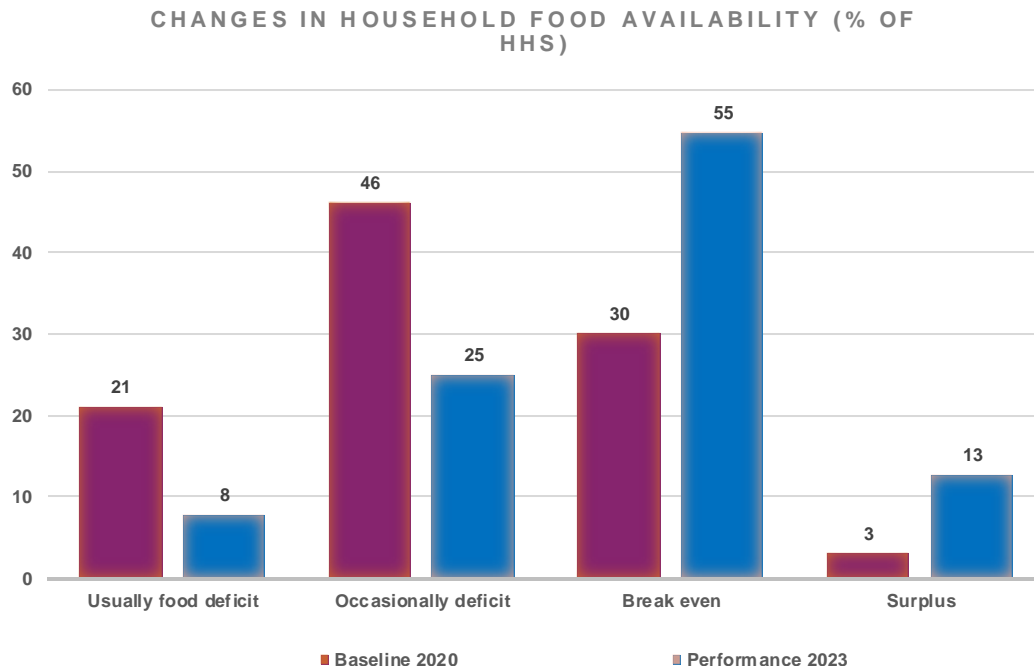
Shifting towards diverse income sources

- A significant shift from reliance on fishing to diverse income sources: over **90%** relied solely on fishing in the baseline, while **68%** now engage in both on-farm and non-farm activities.



Enhancing food availability: Progress in nutrition knowledge and practices

- Enhanced food availability, reduced deficit, while increased surpluses.
- improved HDDS for **91%** households, **54.8%** reached an acceptable level.
- Improved nutritional knowledge score from **45 to 73** on **10** basic nutrition aspects.



Enhancing the Seaweed & Green Mussels Value Chain: Research and Development



Floating Culture Techniques



Site suitability maps



Tissue culture protocol



**Nutrient-rich
Dried Fish and
Seaweed
Powder**



**Captive
breeding-based
farming
technology for
green mussels**



**Depuration
protocol**



Big Splashes



72,000

direct beneficiary women, men, boys and girls of 15,000 coastal artisanal fishing households.



11,918

stakeholders attended in 497 awareness building campaigns on biodiversity conservation.



45,000

neighboring households indirectly adopted good practices of nutrition-sensitive income-generating technologies and homestead horticulture from the intervened artisanal fishing households in 84 fishing villages.



1.33 million

individuals reached through posters, leaflets, media engagement, and other strategies to raise awareness about coastal and marine biodiversity conservation.

30 scientific articles published in peer-reviewed journals

Lessons Learned

- **Context specific Conservation measures more effective**
- **Legal framework, strong institutions and financial instruments needed for successful fisheries co-management**
- **Enhancing “household production systems” effective for small-scale fishing households**
- **Understanding local knowledge essential for improving livelihoods, conservation, and ecosystem health**
- **Participatory learning on basic literacy, gender, nutrition, and conservation improves awareness and strengthen community cohesiveness**
- **Synergy of women's empowerment and men's awareness-effective for sustainable conservation and livelihood improvement**





Who is our next Fish⁴Thought SPEAKER?

Email your interest to

a.khalid@cgiar.org

