National priorities and fisheries research framework : Bangladesh

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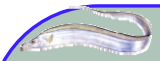
Marine Fisheries of Bangladesh

- North-east corner of the Bay of Bengal
- Maritime areas: 119,000 km²
- Continental shelf: 37,000 km²
- Coastline extends up to 710 km


475 fish


12 Lobster

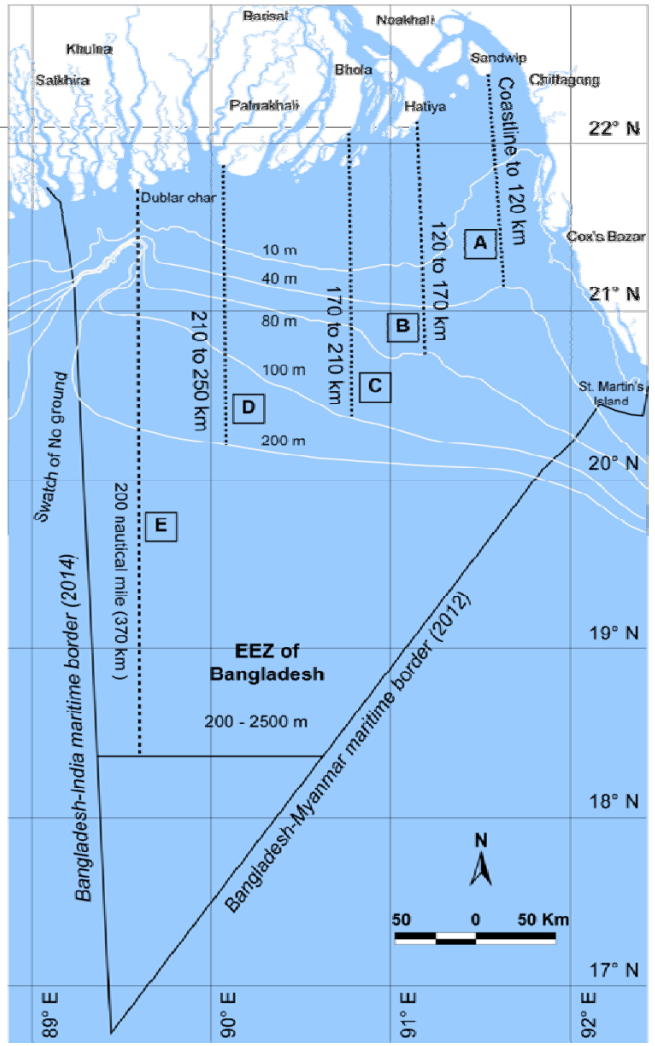

36 Shrimp


50 Crabs


8 seagrass &
9 saltmarsh


8 Oyster & 9 mussel


345 Plant species



National Fisheries Policy

- Increase and sustain fish production for consumption and export.
- Bring all available water bodies under fish culture.
- Meet the basic requirement of animal protein at the household level by integration.
- Generate employment opportunities in fisheries and allied industries.
- Promote the adoption of technologies to optimize production.
- Conserve fisheries resources and species biodiversity.
- Reduce post-harvest loss of fisheries resources.
- Increase the quality of fish & fisheries product.
- Develop and strengthening fisheries research, extension and training.

Legal Framework: Acts & Rules

Fisheries Sector Related Acts & Rules -

- The Fish and Fish Products (FIQC) Act 2020
- Fisheries Quarantine Act 2019
- Fish Feed and Animal Feed Act, 2010
- Fish Feed Rules, 2011
- Fish Hatchery Act, 2010 & Fish Hatchery Rules, 2011
- Marine Fisheries Act, 2021
- Bangladesh Food Safety Act, 2013
- Marine Fisheries Harvest Policy 2022

Fisheries Sector Related Plans -

- Government Vision 2021 & 2041
- Delta Plan 2100
- SDG Targets (2016-2030)
- 8th Five Year Plan (2021-2025)2

Bangladesh government's Vision 2041

The **government's Vision 2041**, which is a continuation of Vision 2021, aims to carry the development journey of **Bangladesh** that Bangabandhu had dreamed of –

: to end absolute poverty and to graduate into a higher middle-income status by 2031 and a developed country by 2041s as "Sonar Bangla/Golden **Bangladesh**"

Bangladesh Delta Plan (BDP) 2100

The Bangladesh Delta Plan (BDP) 2100 is a **long term integrated techno-economic mega plan** that integrates all delta-related sector plans and policies with a roadmap for implementation.

Development strategies and policies for Marine Fisheries in 8th FYP (2020-25)

Sustainable exploitation of marine fishery resources, which includes :

-species wise stock assessment

- identification of the breeding ground and the grow out areas,

- potential maximum sustainable yields by species, season and location;

- **Alleged over-fishing**

Strategies for marine fisheries in the 8th FYP plan are aligned with the perspective plan 2041 and the Delta plan 2100

- Introduction of Vessel Tracking and Monitoring System (VTMS),
- Development of policy and methods, which can be effectively administered for management of MPA
- Institutional capacity building of the concerned agencies, strengthening of monitoring control and surveillance system (MCS) in the Bay of Bengal,
- Stock and maximum sustainable yield/ total allowable catch (quota) must be determined
- Digital marine fisheries resource mapping (DMFRM),
- Collaborative effort for distant fishing (beyond 200m of EEZ and ABNJ) to explore and exploit tuna and large pelagic fishes,
- Establishment of MPAs (marine protected areas) as breeding grounds,
- Registration of all mechanized fishing boats and providing fishing license,
- Promote mariculture especially seaweed, seabass, mugil, mollusks.
- Restrict and control pouching of resources and illegal entry of foreign trawlers

Research Priority Areas in Marine Fisheries

Marine Fish Behaviour & Fishing Technology

- ✓ Marine biology & productivity.
- ✓ Commercial exploitation of marine invertebrates (i.e. swimming crabs, squides etc.).
- ✓ Assessing impacts of climate change on fish & fisheries of marine waters.
- ✓ Ecosystem modeling & EBFM.

Mariculture

- ✓ Developing breeding technique for commercially important marine fish & shrimp species.
- ✓ Developing culture technologies for marine fishes.
- ✓ Cage culture technology for marine fishes.
- ✓ Culture of sea weeds farming
- ✓ Culture of oyster, cockles & green muscles.

Oceanography & Marine Pollution

- ✓ Assessing pollution level in marine waters .
- ✓ Marine pollution management.

Processing, Product Development & Quality Control

- ✓ Processing & value addition of commercial important species.
- ✓ Developing diversified value-added products & bi-products from sea weeds.
- ✓ Developing value chains for local & international markets.

Stock Assessment, Resource Statistics, Dynamics and Biodervisity

- ✓ **Management & conservation of spawning & nursery grounds of marine fishes.**
- ✓ **Stock assessment & exploitation of commercially important demersal & pelagic fishes.**
- ✓ **Stock assessment & exploitation of tuna & related fisheries.**
- ✓ **Stock assessment of shrimp & other shellfishes.**
- ✓ **Impacts of establishing ECA, MPA, other protected areas.**

Fisheries Economics & Socio-economics

- ✓ **Assessing socio-economics & nutritional status of fisher communities of marine sector.**
- ✓ **Development of technologies for shellfish (molluscs-green mussel, Oyster, Clam) culture through participation of coastal poor people.**
- ✓ **Socioeconomics of marine fisherfolk.**
- ✓ **Assessing impacts of climate change on socio-economic conditions & livelihood of fishers.**

Breeding & Mass Seed Production of Gold Spot Mullet (*Liza parsia*) & Brackish water Catfish

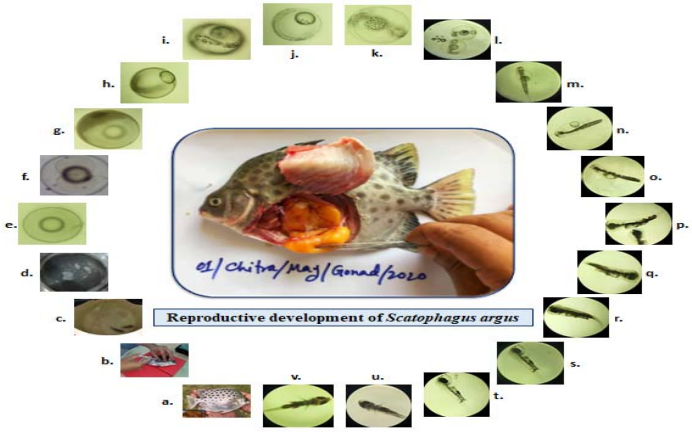
• **Gold spot Mullet *(Liza parsia)*** and **Brackish water Catfish/Long Whisker Catfish (*Mystus gulio)*** is a popular coastal finfish

• Availability of hatchery produced mullet fry open new aquaculture venture in the Southern Coastal Region

Developed culture technology of Polyculture with Shrimps

Breeding & Seed Production of Grunter (Silver) & Spotted Scat

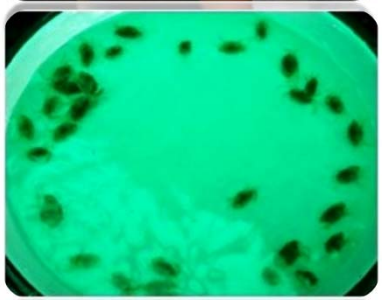
Silver Grunter (*Pomadasys*



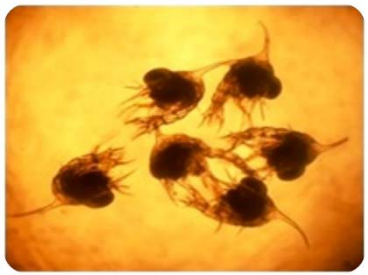
Spotted Scat (*Scatophagus*

Breeding of Mud Crab (*Scylla olivacea*)

Successfully developed berried broods under captive condition with 69% spawning success

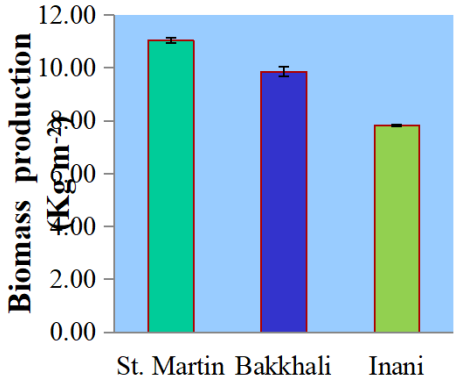


Successfully produced crablet with 7% survival. World av. 5%



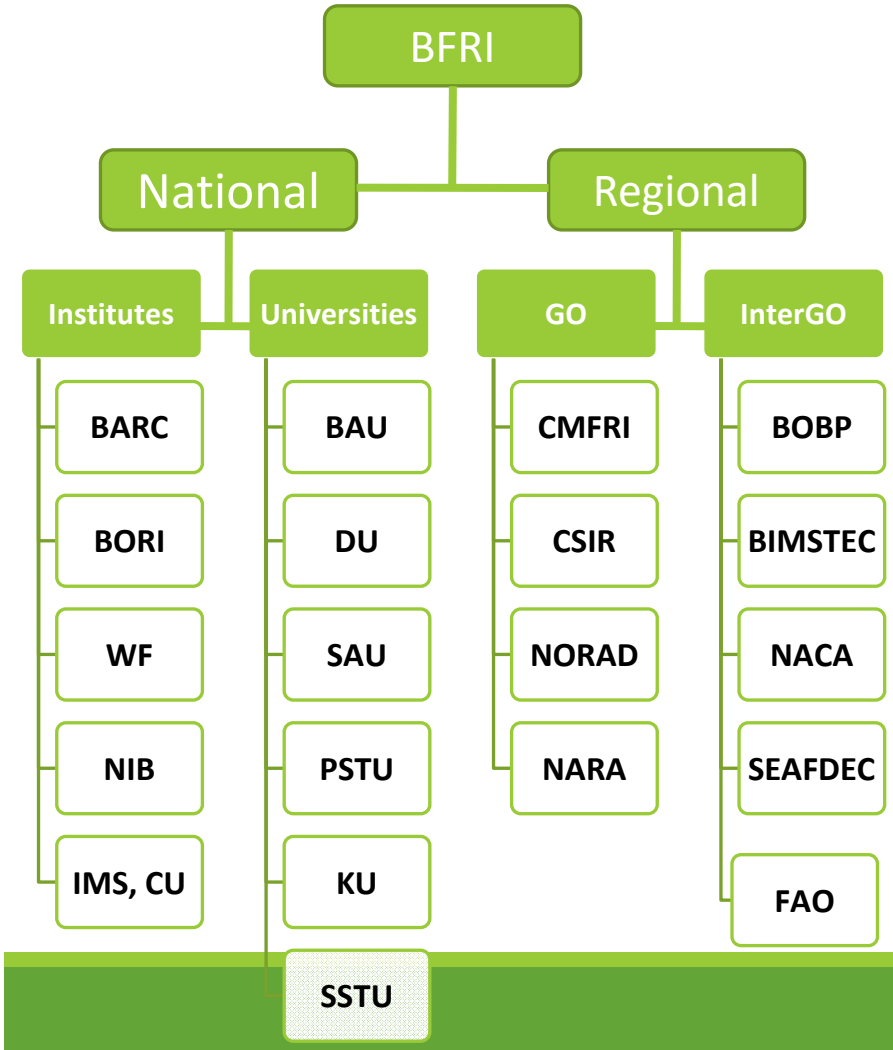
Development of Seaweed Culture Technology in the Coastal Area

- Identification of 157 spp. in Bangladesh coast, of which 28 are economically important
- Culture of seaweed in coastal area can be done by using 4x4 m² net method & long line method
- Production Rate 30kg/m²

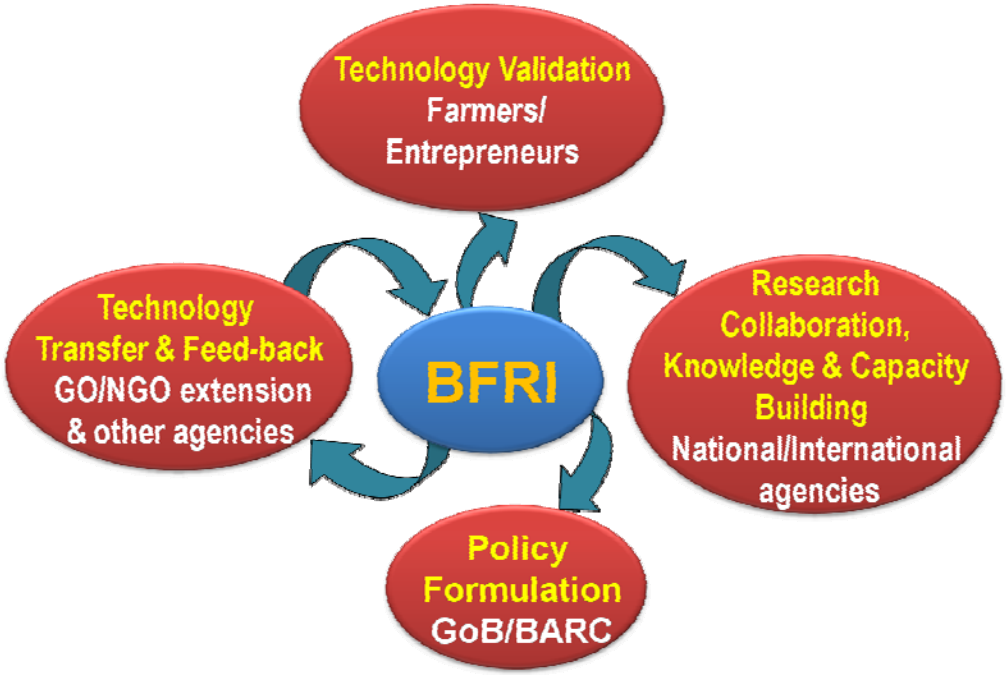


R & D Networking

Networking tree



Working Mechanism



Thank You