

# FAO Regional Workshop on **understanding fisheries support measures in the Asian context**

Venue : **Bangkok, Thailand**  
Dates : **17 to 19 October, 2023**

*Department of Fisheries Bangladesh*  
*Ministry of Fisheries and Livestock*



Organisers : **FAO, with the participation of the Organisation for Economic Co-operation and Development (OECD)**  
**and technical support from INFOFISH**

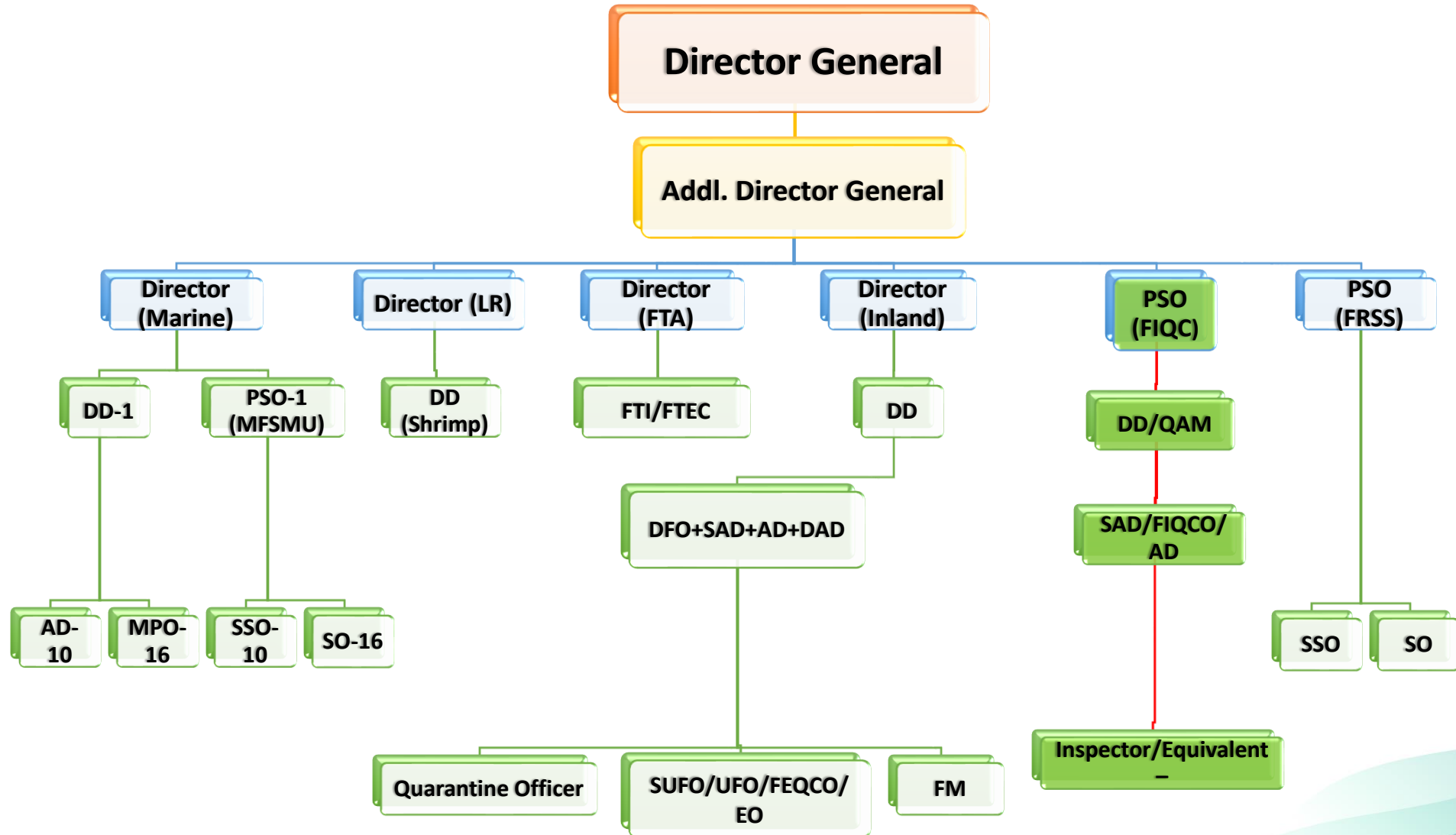
# Institutional Framework for Fisheries

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- ❑ Fisheries sector is regarded as the dynamic and productive subsector of agricultural driven economy of Bangladesh.
- ❑ The **Ministry of Fisheries and Livestock (MoFL)** is the apex government body with the responsibilities of formulating policies, strategies, regulations and development plans for sustainable development of the fisheries resources to pursue its vision of ensuring safe, adequate and nutritious protein supplies for all.
- ❑ **Department of Fisheries (DoF)** under the administrative guidance of the MoFL is the apex government agency responsible for overall fisheries management including execution of policies, strategic plans, programs & development interventions for enhancement of fisheries sector in Bangladesh.
- ❑ DoF is also the legal entity for enforcing regulations governing fish food safety, quality control, and conservation of inland open and marine water resources.

# Organizational Structure of DoF

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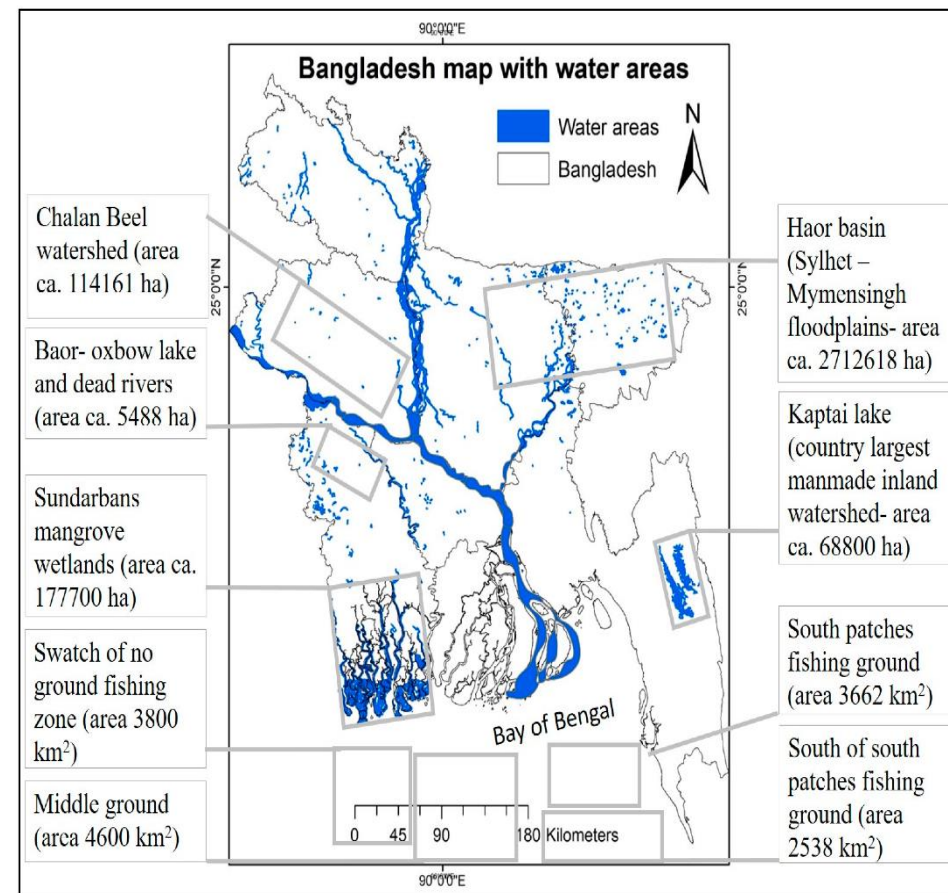
## ❑ Other govt. agencies involved in fisheries sectoral development includes

- Bangladesh Fisheries Research Institute (BFRI)
- Bangladesh Fisheries Development Corporation (BFDC)
- Ministry of Environment, Forestry and Climate Change (MEFCC)
- Department of Forestry (DOF) and Department of Environment (DoE)
- Ministry of Shipping (Marine Mercantile Office)
- Universities
- Development partners including FAO, World Bank, WorldFish etc.

# Diversified Fisheries Resources

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| Inland Open Water (Capture)     | Area ('000 ha)  |
|---------------------------------|-----------------|
| 1. River and Estuary            | 853.86          |
| 2. Sundarbans                   | 177.70          |
| 3. Beel                         | 114.16          |
| 4. Kaptai Lake                  | 68.80           |
| 5. Floodplain                   | 2712.62         |
| <b>Capture Total</b>            | <b>3,927.14</b> |
| Inland Closed Water (Culture)   |                 |
| 1. Pond                         | 384.70          |
| 2. Seasonal cultured water body | 136.27          |
| 3. Baor                         | 5.49            |
| 4. Shrimp/Prawn Farm            | 272.72          |
| 5. Pen and cage culture         | 34.58           |
| <b>Culture Total</b>            | <b>833.76</b>   |
| <b>Inland Fisheries Total</b>   | <b>4,760.90</b> |
| Coastal area                    | 710 km          |





# Marine Fisheries Resources at a Glance

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| Resources   | Quantity/Number  |
|---|--|
| Exclusive Economic Zone   | 118,813 sq Km  |
| Marine species (Fish, Crustacean, Bivalves, Corals, Dolphin etc.) | More than 865  |
| Annual Marine Catch (2021-22)                                     | 706,030 MT<br>Industrial: 137,170 MT (19.43%)<br>Artisanal: 568,860 MT (80.57%)                                |
| No of active Industrial Trawlers (2021-22)                        | 231  |
| No of newly recorded Artisanal Boats (2023)                       | 29,861   |
| No of Fishermen (Coastal & Marine)                                | 2,99,135   |
| Fishing ground  | 4 (Swatch of No Ground, Middle Ground, South Patches & South of South Patches)                                 |
| Marine reserve/Marine Protected Area                              | Middle ground, Nijhum Dwip, Swatch of no ground, St. Martin; Total 7367 Sq Km (8.71% of Key Biodiversity Area) |

# Fisheries Biodiversity in Bangladesh

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## Marine Species:

|            |       |
|------------|-------|
| ✚ Fish     | : 475 |
| ✚ Shrimp   | : 36  |
| ✚ Crab     | : 15  |
| ✚ Mollusks | : 301 |
| ✚ Oyster   | : 6   |
| ✚ Lobster  | : 8   |
| ✚ Coral    | : 13  |
| ✚ Dolphin  | : 11  |

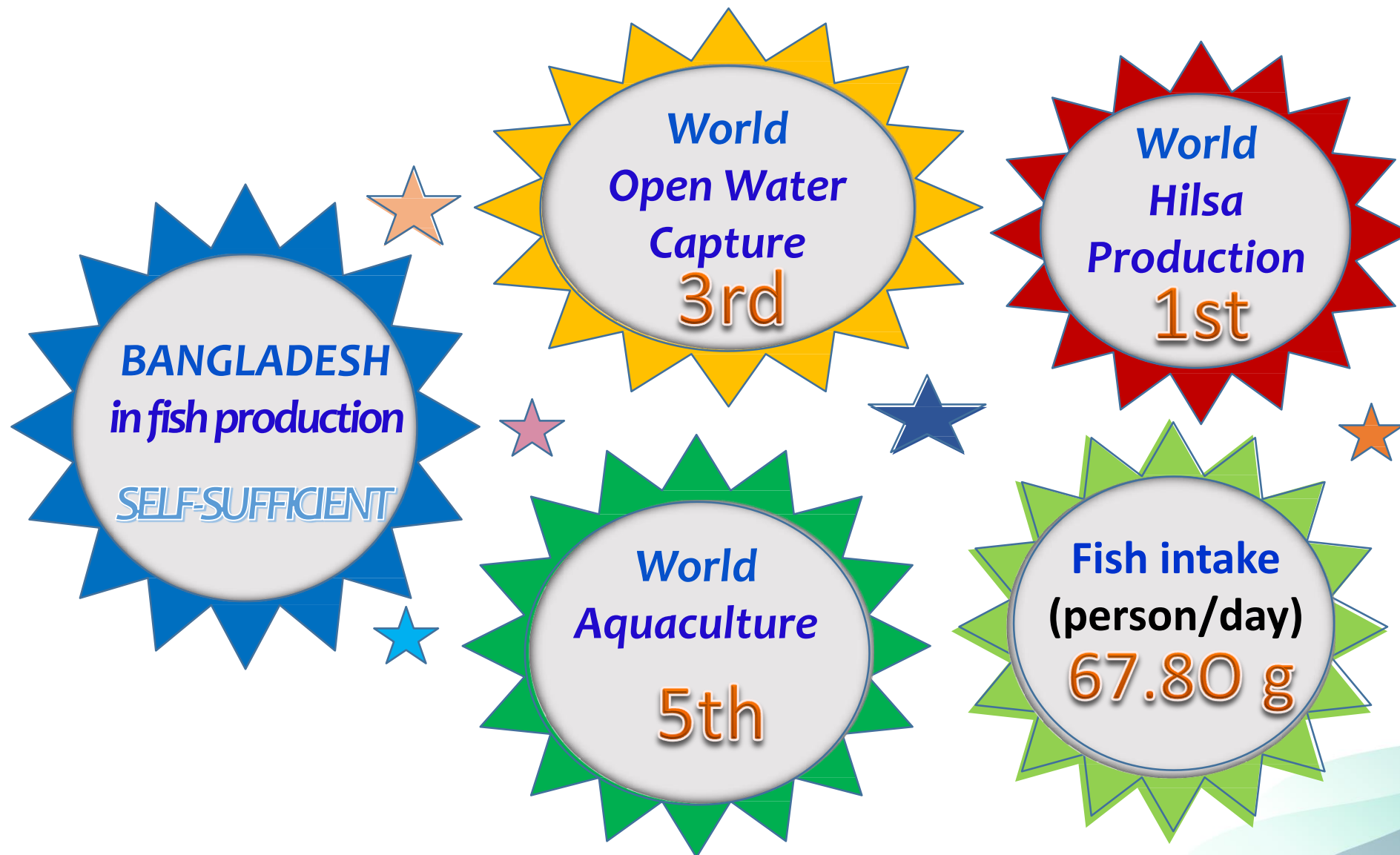
## Freshwater species:

|               |       |
|---------------|-------|
| ✚ Fish        | : 260 |
| ✚ Exotic fish | : 12  |
| ✚ Shrimp      | : 24  |



# Fisheries Sector Contribution on the march towards Prosperity

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# Economic relevance of the fisheries sector

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After 46 years of independence,

**Bangladesh declared as a self-sufficient country in fish production.**

- Per capita fish consumption is **67.8** g/day against the set target of **60** g/day
- ❑ Fisheries sector contributes : 2.43 % in national GDP & 22.14 % total agricultural GDP
- ❑ Fish is recognized as the most important source of animal protein in Bangladesh. It provides the consumer with more than 60% of their animal protein intake.
- ❑ About 19.5 million or 12 % of the total population of the country including 1.4 million women make a living by directly or indirectly engaging in various activities in this sector

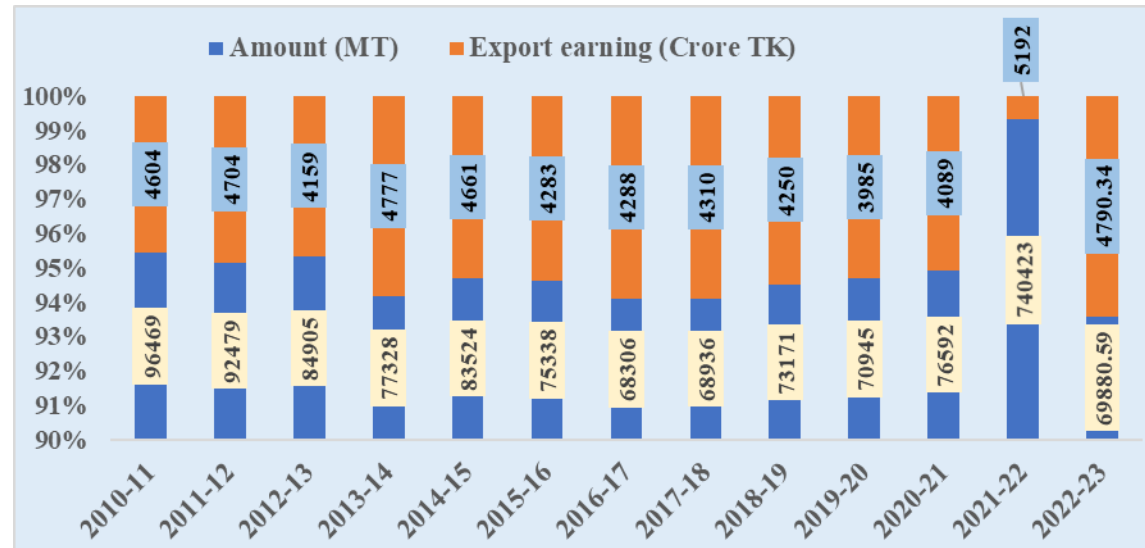


# Economic relevance of the fisheries sector

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- Fish and fish products constitutes one of the major export commodities of Bangladesh.
- Fishery products are exported into > **50 countries**.
- In 2022-23, Bangladesh earned **442.77 million USD** by exporting **69.88 thousand MT** fish and fishery products.
- **Major export items:** Frozen shrimp & prawn, frozen fish & fish fillets, Crab (live & frozen), Eel and dried fish & fish scales etc.

Major exportable item



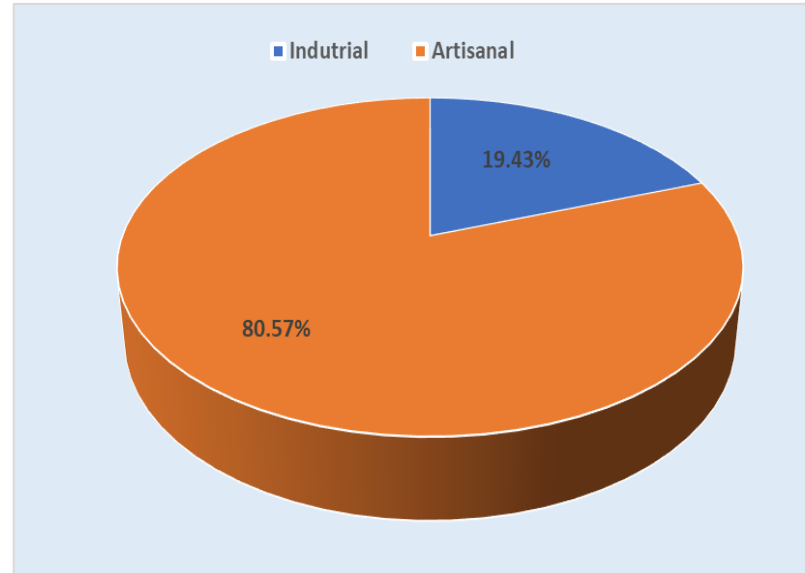
# Economic relevance of the fisheries sector

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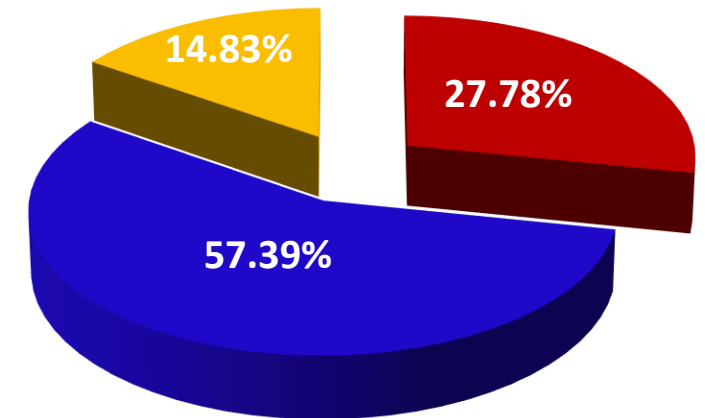
## □ In FY2021-22

- Total fish production  
**4.76 million MT**
- Hilsa Production  
**0.567 million MT**
- Shrimp Production  
**0.261 million MT**

## Marine Catch in FY 2021-22 : 0.70 Million MT



- Inland Open Water (Capture)
- Inland Closed Water (Culture)
- Marine Fisheries



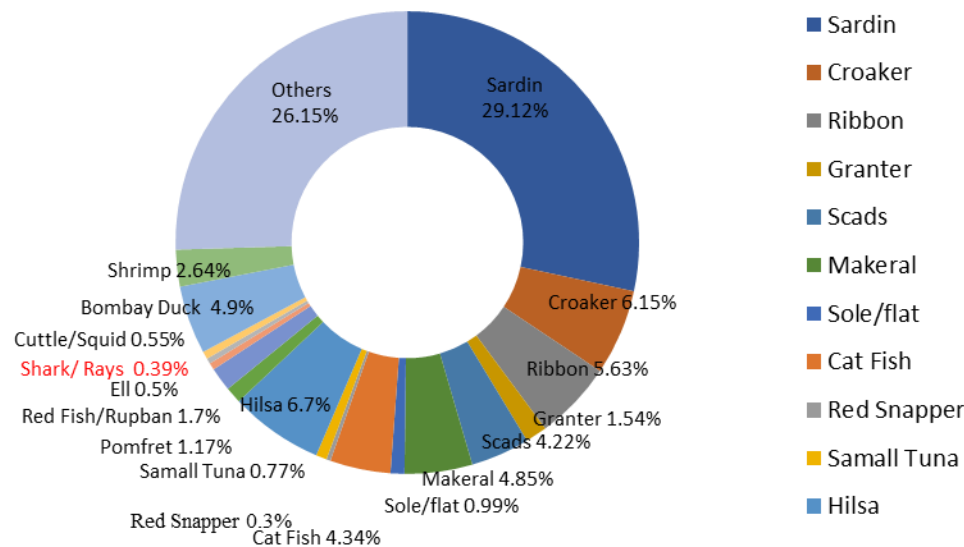
**Sector-wise Fish Production**



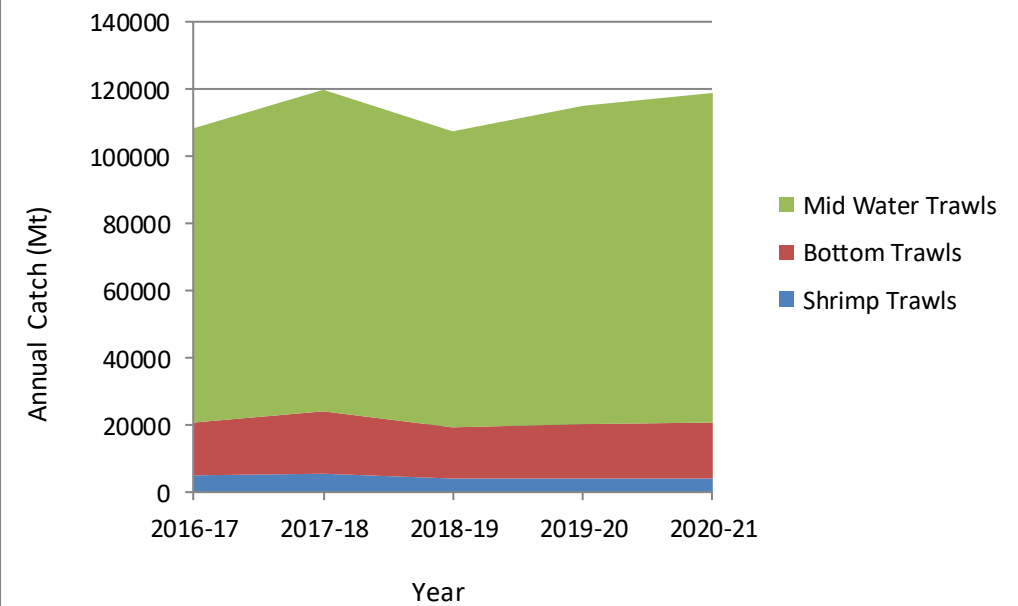
# Marine Fish Production Scenario

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Distribution of marine industrial fish catches by major species/group



Historical annual catch by industrial fishing fleets



Distribution of marine industrial fish catches by major species/group in 2020-21

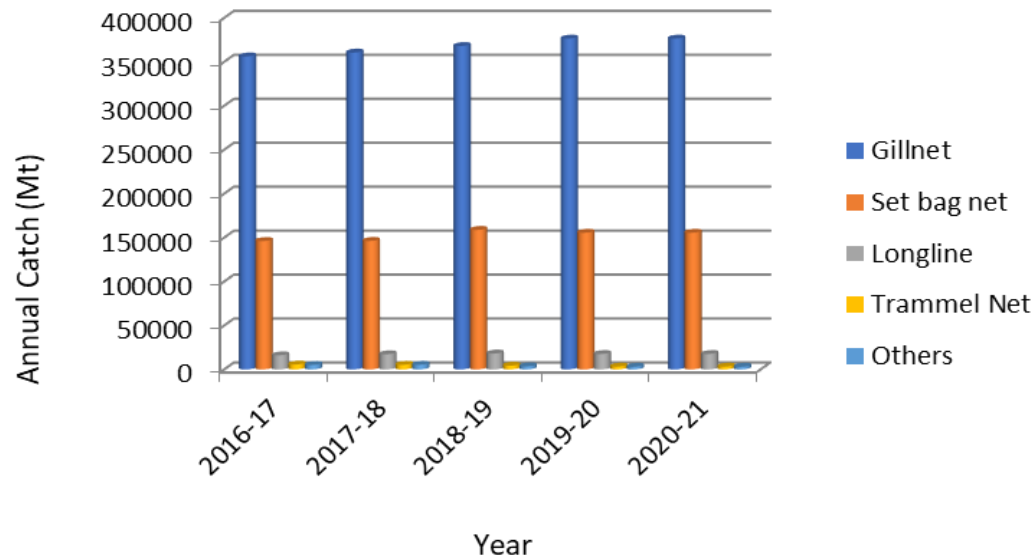
Historical annual catch by industrial trawlers 2016-17 to 2020-21



# Fish Production Scenario (Artisanal & Industrial)

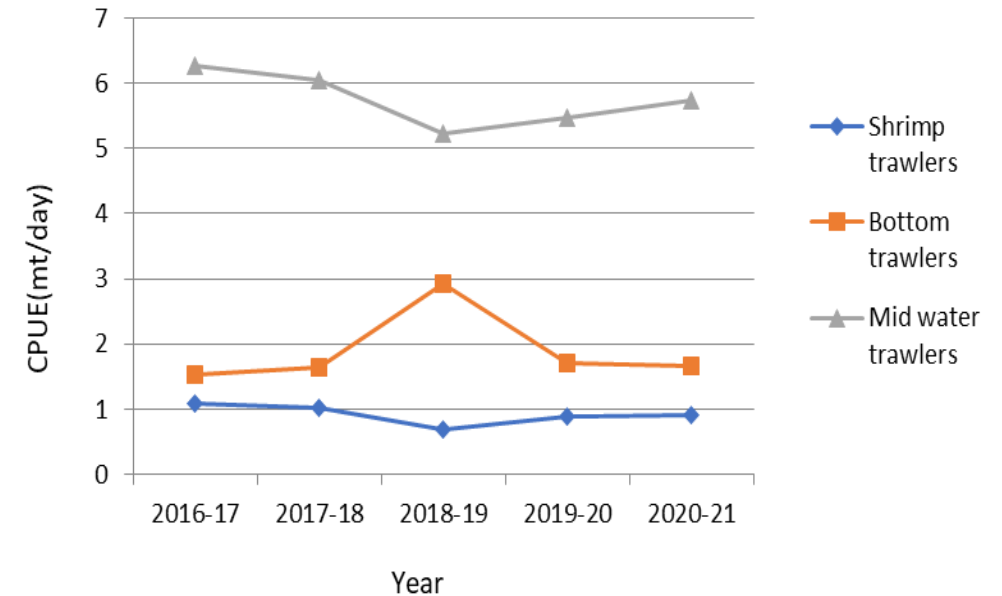
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Historical annual catch by artisanal fleet (gear-wise)



**Historical annual catch by artisanal fleet (gear-wise) from 2016-17 to 2020-21**

Trend of industrial fishing efforts of various trawlers



**Trend of industrial fishing efforts of various trawlers from 2016-17 to 2020-21**

# Present size of Industrial Fishing Fleets

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| Type       | No. | Mesh size  | Engine Power | Vertical Opening |
|------------|-----|------------|--------------|------------------|
| Shrimp     | 37  | 45-300mm   | 250-500 BHP  | 2.0-3.0m         |
| Bottom     | 63  | 60-300mm   | 250-900 BHP  | 2.0-6.0m         |
| Mid-water  | 122 | 60-16000mm | 600-1850 BHP | 15.0-30.0m       |
| Trial Trip | 41  | 60-300mm   | 250-500BHP   | 2.5-3.5m         |
| Total      | 263 |            |              |                  |

**No Purse Seiner and Long Liner fishing fleet in Bangladesh**

# Gears, catch and depth

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| Name             | Species caught   | Depth of operation  |
|------------------|--|---|
| Trawl            | Tiger and other peneied shrimps, Catfish, Jew fish, Ribbon fish, Mackerels, Scads etc            | 40-100 m  |
| Gill net         | Hilsa , Indian salmon, Mackerels , Pama croaker, Grunters etc                                    | 8-10m (fixed) ,up to 30m (drift nets) ,up to 80 m (bottom set gill net) |
| ESBN<br>(Banned) | Mostly pre-adult stages of fresh water and marine shrimp.jew, Bombay ducks, gobies, croakers etc | 5-10 m  |
| MSBN             | Peneied shrimps,Aanchovies, Bombay ducks, Clupieds, Sea perch etc                                | 10-30m  |
| Bottom long line | Sciaenieds   | 10 -30m   |
| Beach seine      | Small peneied shrimps, Clupieds, Anchovies, Sciaenids  | 8-10m   |

## Hilsha fisheries development and management

### ■ Key interventions

- HFMAP develop & implementation
- Conserved 7000 sq. km costal waters as Hilsha breeding ground;
- Declared 06 no. of Hilsha sanctuaries;
- Regulatory enforcement (combing operation; mobile court etc.) to strengthen Hilsha conservation programmes (7 months ban on capture of juvenile; 22 days ban during peak breeding of hilsa and 65 days ban on capture in Bangladesh Marine Waters.

### ■ Supports

- VGF support to poor fishers during ban periods
- Training of fisheries on alternative livelihoods
- Project support with AIG inputs/materials/tools



## ☐ Infrastructure development:

- Renovation & modernization of fish harbor (ongoing)
- Renovation & modernization of ten fish landing center & adjacent markets (initial stage)
- Construction of five Marine Fisheries Surveillance Check posts (ongoing)

## ☐ Marketing and promotion of fisheries product

- Conducted production piloting of Agar & Laver from Seaweed
- Production piloting of Canning from Hilsa shad and neritic Tuna
- Marketing of ready to cook and ready to eat fish
- Promotion campaign for export of Premium Black Tiger Shrimp

# Support to capture fisheries from DoF

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## ▣ Training & Long-term capacity building

- Provided training on post-harvest handling and preservation techniques to 9300 Skippers/Fishers
- Provided series of training (involving international expert) to Scientific Officers of Marine Fisheries Survey Management Unit for their Long-term capacity building on Stock Assessment

## ▣ Resource management

- Developed Vessel Monitoring System
- Developed Catch & Effort data collection system and Online electronic registration & licensing system
- Stock Assessment and Developed Marine Fisheries Management Plans for Industrial and Artisanal Fishing fleets based on EAFM
- Developed 450 fishers' village & 100 model village focusing Co-management & livelihood transformation

# Beneficiaries of the support provided to fisheries

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| Support  | Intended recipients/beneficiaries                                      |
|--|--|
| Renovation & modernization fish harbor   | Medium- or large-scale domestic commercial fisheries                   |
| Renovation & modernization of ten fish landing center & adjacent markets   | small-scale fisheries, medium commercial fisheries & Coastal fisheries |
| Construction of five Marine Fisheries Surveillance Check posts   | All types of fisheries   |
| Marketing & promotion of fisheries product   | Fishers', Producers, Exporters & Consumers                             |
| Training & Long-term capacity building   | Entire Fishery   |
| Resource management (Stock assessment & management plan, Co-management involving Fishers' Village, Livelihood transformation etc.) | Entire Fishery   |

# Stock Survey by national and international research vessels

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- **R. V. Meen Shandhani**
- Bangladesh has got a high-tech multipurpose survey and research vessel '*R.V. Meen Shandhani*'
- '*R, V. Meen Shandhani*' has conducted 44 surveys and identified 457 marine species.



## R. V. Dr. Fridtjof Nansen

- World's renowned highly sophisticated research and survey vessel R.V. Dr. Fridtjof Nansen came to Bangladesh with a group of scientists and made a pelagic survey in the Bay of Bengal for 15 days.





# Progress in MCS

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- Installed VMS software and server at Marine Fisheries Surveillance Checkpost, Potenga, Chattogram for real time monitoring of fishing activities in Bangladesh Marine waters;
- Established Joint Monitoring Cell (JMC) at Potenga, Chattogram
- Installed GSM devices to 8500 small Artisanal fishing vessels
- Installation of AIS transponders to 1500 large Artisanal fishing vessels in progress
- Completed Frame Survey of Artisanal fishing fleet and enlisted 29861 artisanal fishing crafts and gear
- Procurement of Six High Speed Patrol Boats ongoing
- Construction of Five Marine Fisheries Surveillance Checkposts ongoing

# Progress in long distant fishing

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- ☐ A pilot Project titled 'Tuna and Similar Pelagic Fishing in the Deep Sea' is ongoing.
- ☐ Three (03) long liner type fishing vessels (fishing boats including fishing gears) will be procured from this project which is under processing;
- ☐ Abundance survey of tuna and tuna like fishes in the deep sea area of Bangladesh EEZ and international waters will be conducted through experimental fishing.
- ☐ The Ministry of Fisheries and Livestock has issued permission against 10 long liner and 07 purse seiner. The awarded Companies are in the effort to collect appropriate vessel and equipment's.

# Updated Policy/Legal Framework

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- ☐ Hilsa Fisheries Management Action Plan
- ☐ Marine Fisheries Act 2020
- ☐ Marine Fisheries Harvest Policy 2022
- ☐ Marine Fisheries Rules 2023
- ☐ Marine Spatial Planning
- ☐ Bangladesh Marine Fisheries Management Plan: Part-1 (Industrial)
- ☐ Bangladesh Marine Fisheries Management Plan: Part-2 (Artisanal)  
has been drafted
- ☐ MCS Plan (under review for approval by MoFL)

# Bangladesh status in compliance with Legal Framework (international)

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| International Instruments  | Status                            |
|--|-----------------------------------|
| United Nations Convention on the Law of the Sea 1982   | Ratified in 2001                  |
| FAO Compliance Agreement 1993  | Not Ratified                      |
| UN Fish Stocks Agreement 1995  | Signed 1995, Ratified in 2012     |
| FAO Code of Conduct for Responsible Fisheries 1995   | Ratified                          |
| FAO International Plan of Action - IUU Fishing (IPOA-IUU) 2001<br>(Adopted NPOA to combat IUU fishing) | Voluntary document                |
| FAO Agreement on Port State Measures (PSMA) 2009   | Ratified in 2019                  |
| Voluntary guidelines for Flag State Performance 2014   | Not Ratified, Voluntary guideline |
| Voluntary guidelines for Catch Documentation Scheme 2017   | Not Ratified, Voluntary guideline |
| Indian Ocean Tuna Commission (IOTC)  | Membership in 2018                |



# Challenges delivering government support

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- ☐ Difficult to manage Huge Artisanal fishing fleet (about 30000)
- ☐ Multispecies-multigear nature of fishery
- ☐ Climate change & pollution
- ☐ High fuel cost
- ☐ Alternative livelihood of fishers
- ☐ Reduction of post harvest loss to acceptable level
- ☐ Combating IUU fishing