DEPARTMENT OF FISHERIES KERALA

NATIONAL WORKSHOP ON BEST PRACTICES IN FISHERIES, ANIMAL HUSBANDRY AND DAIRYING

K.K. SATHEESHKUMAR, JOINT DIRECTOR OF FISHERIES
IMPLEMENTATION OF MINIMUM LEGAL SIZE (MLS) IN MARINE CAPTURE FISHERIES
Status of Marine fisheries of Kerala

Kerala with a coastline of 590 Km is a significant contributor to the total marine fish landings of the country. A picture of the marine fisheries sector in Kerala during the years 2005 to 2017 is presented below (Table – 1). With a continental shelf of about 40,000 Km², marine fisheries plays a vital role in the livelihood of the people.
### Table - 1
Comparison of marine fisheries census data for 2005-2017

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2010</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine fishing villages</td>
<td>222</td>
<td>222</td>
<td>222</td>
</tr>
<tr>
<td>Marine fish landing centres</td>
<td>178</td>
<td>187</td>
<td>204</td>
</tr>
<tr>
<td>Fishermen families</td>
<td>120486</td>
<td>118937</td>
<td>141030</td>
</tr>
<tr>
<td>Total fisher population</td>
<td>602234</td>
<td>610165</td>
<td>792238</td>
</tr>
<tr>
<td>Male</td>
<td>304308</td>
<td>220602</td>
<td>409849</td>
</tr>
<tr>
<td>Female</td>
<td>297926</td>
<td>215820</td>
<td>382389</td>
</tr>
<tr>
<td>Female to male ratio</td>
<td>979</td>
<td>966</td>
<td>933</td>
</tr>
<tr>
<td>Active Fishermen</td>
<td>140222</td>
<td>145396</td>
<td>186287</td>
</tr>
</tbody>
</table>
### Status of Registration and Licensing of Fishing Crafts and boats (Kerala)

<table>
<thead>
<tr>
<th>State</th>
<th>Motorized Mechanical</th>
<th>Non Motorized</th>
<th>Motorized non mechanical</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerala</td>
<td>4439</td>
<td>2627</td>
<td>30529</td>
<td>37595</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>License issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerala</td>
<td>28121</td>
</tr>
<tr>
<td>Year</td>
<td>Production (lakh M.T.)</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>2009-10</td>
<td>5.70</td>
</tr>
<tr>
<td>2010-11</td>
<td>5.60</td>
</tr>
<tr>
<td>2011-12</td>
<td>5.53</td>
</tr>
<tr>
<td>2012-13</td>
<td>5.31</td>
</tr>
<tr>
<td>2013-14</td>
<td>5.22</td>
</tr>
<tr>
<td>2014-15</td>
<td>5.24</td>
</tr>
<tr>
<td>2015-16</td>
<td>5.17</td>
</tr>
<tr>
<td>2016-17</td>
<td>4.88</td>
</tr>
<tr>
<td>2017-18</td>
<td>4.83</td>
</tr>
</tbody>
</table>
Minimum legal size (MLS) means, set the smallest size at which a particular species of fish can be legally retained if caught.

With the aim of increasing the economic efficiency and sustainability of the marine fisheries sector, The Department of Fisheries, Kerala, based on the recommendations of CMFRI, decided to implement MLS for 14 species initially.

44 species subsequently.
CMFRI recommended MLS for 58 commercially important species which comprised of 40 Fin Fishes including Oil sardine, Indian Mackerel, tunas, ribbon fish, seer fishes, thread fin breams and pomfrets, 13 crustaceans including crabs, Lobsters and Shrimps and five species of Molluscs including Clams, Octopus Squid and cuttlefish.

Objectives of Legal sizes

- Prevention of growth overfishing.
- Prevention of recruitment of overfishing.
- Conservation and sustainability of Marine Resources.
Implementation of Minimum sizes

- Amendment the KMFR Act, insertion of various provisions for regulating juvenile fishing and other illegal, unregulated fishing.
- Restriction of minimum Mesh. Size for different types of gears.
- Gear restrictions.
- Closed seasons.
- Closed Areas.
Challenges in implementation of minimum legal size of fishes

- Inappropriate sizes.
- Migratory species.
- Age – size differences.
- Problems with identification of different species.
- Limitation of Jurisdiction.
- Lack of restrictions in the neighboring states.
- Insufficiency of law enforcement mechanisms.
- Low awareness among fishermen.
Implementation status of MCS Provisions

- Established Fisheries stations to MCS under the control of ADF with Marine Enforcement and Vigilance.
- Conducting regular patrolling and impounding vessels.
- Colour coding of Mechanized boats, 99.5% completed.
- Vessel Monitoring System fitted the vessels in selected districts.
- Formation of Fisheries Management Council at Village, District and State level.
Provisions of preventing IUU fishing by boats in the MFRA

- Amendment of Sec.4 of the Principle Act, after clause B the following clauses shall be inserted.
  - (e) The production, keeping and transportation such type of, such size of, fishing vessel, fishing gear, as may be prescribed.
  - (f) The use of any dynamites, other explosive substance, poison or noxious chemicals, light or other destructive materials to catch or destroy the fish in the specified area as may be prescribed.
- Insertion of new section 9A to 29H.
(9F) Prohibition of using fishing net production unit which is not registered.

(13A) Constitution of Fisheries Management Councils.

(1) The Government may, for the effective management and surveillance of Marine Fisheries and for effectively carrying out the provisions of this Act.
Management of Fishing Harbour
Munambam Model
LOCATION

• Munambam Harbour is the largest Fishing Harbour situated in Ernakulam District, Kerala.

• Strategically located - in Northern tip of Vypin Island.

• 40 km north of Kochi Fishing Harbour and 85 km south of Ponnani Fishing Harbour.

• Located at 10°10′ N latitude and 76°10′E longitude.

Established under the Act XII of 1955 being an Act for the Registration of Literacy, Scientific and Charitable Societies in the erstwhile Travancore Cochin area of the Kerala State.

The area of operation of the society shall be Revenue limit of Munambam estuary and contiguous water area.
OBJECTIVES

- To manage the harbour with the participation or co-management of the stake holders and concerned Government Departments.
- To ensure Constant monitoring and watching of day-to-day activities by the District administration and the Fisheries department.
- To keep the harbour and premises with hygienic and clean condition throughout the year.
- To manage and maintain the harbour for all weather use for fishing vessels.
To provide convenient landing facilities to the fishing crafts.

To facilitates berthing handling of catches, auctioning, bunking, repairing etc.

To provide hygienic conditions for the pre-process, handling of fish to match international standards.

To maintain hygienic standards at international level in the handling of fishes and other marine catches.
<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>District Collector Ernakulam</td>
<td>Chairman</td>
</tr>
<tr>
<td>2</td>
<td>Superintending Engineer, HED</td>
<td>Vice Chairman</td>
</tr>
<tr>
<td>3</td>
<td>Deputy Director of Fisheries</td>
<td>Member</td>
</tr>
<tr>
<td>4</td>
<td>Representative of MPEDA</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Representative of Matsyafed</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Executive Engineer, HED</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Port Officer, Alappuzha</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Representative of Department of Animal Husbandry and Dairying, Government of India</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Joint Director of Fisheries (CZ ) Ernakulam</td>
<td>Member Secretary/Convenor</td>
</tr>
<tr>
<td>10</td>
<td>Representative of users (5 Nos) nominated by the Government</td>
<td></td>
</tr>
</tbody>
</table>
Executive Committee

- Joint Director of Fisheries (CZ) : Chairman
- Executive Engineer (HED) : Vice Chairman (Member Technical)
- Representative of MPEDA : Member
- Representative of Matsyafed : ”
- Port Officer, Alappuzha : ”
- Deputy Director of Fisheries (Z): Member Secretary/Convener
• Government has decided to replicate Munambam Model Management to other 12 Fishing Harbours in Kerala.

• Vizhinjam, Thankassery, Neendakara, Kayamkulam, Chettuva, Beypore, Puthiyappa, Koyilandy, Chombal, Thalai, Mappila Bay, Cheruvathur vide G.O(MS) No.28/2018 F&PD, dated: 13/08/2018 under the chairmanship of concerned District Collector
FISHERY MANAGEMENT PLAN FOR

ASHTAMUDI LAKE CLAM RESOURCES

AND

MSC CERTIFICATION
Ashtamudi Lake (Lat. 8°45’-9°28’N and Long. 76°28’-77°17’E) is the second largest Lake estuary of Kerala. It lies 145 km south of Kochi and has an area of 61.4 km2. It remains connected with the Arabian Sea throughout the year and the Kallada River which empties into the lake is the main source of fresh water.
Ashtamudi Lake, a Ramsar Wetland of international importance, is the second largest estuarine system in Kerala. It has extensive mangrove habitats harbouring nearly 90 species of fish and 10 species of clams. The clam fishery in Ashtamudi dates back to 1981 and supports the livelihoods of around 3000 fishers involved in collection, cleaning processing and trading the clams.
• The clam Pamphia malabarica (Short neck or yellow foot clam) is widely distributed and continuously exploited for local consumption as well as for export.

• Clam meat is rich in protein and is also cheap when compared to other seafood.

• The clam shells are used for industrial purposes mainly for lime industry.
Considering the intense fishing pressure on the clam resources of the Ashtamudi Lake a remarkable shortfall of production reported, then a survey conducted by CMFRI to assess-

- the Ecological status of the clam bed.
- the present status of clam resources.
- the existing bivalve resources and the potential for exploitation.
- Develop plan for the conservation and management of clam fishery
Management Plan

- No take Harvesting zone for clams all through the year (It function as a clams sanctuary)

- Seed clam below 20mm. should not be allowed to be harvested.

- Transportation of clams one estuary to another is not permitted.

- A system of licensing to be imposed and registration of boats and gears used for clam fishing.
• No mechanical device allowed for clam harvest.

• To form a stakeholder council or village clam fish council (VCFC) for administration and monitoring of the fishery. It includes a representatives from the LSGD, Fisheries Department and CMFRI as members.
Sustainable fisheries in the developing world have taken a significant step forward recently with the certification of India’s first clam fishery in the Ashtamudi estuary in Kerala. Achieved through the efforts made by WWF-India, the Central Marine Fisheries Research Institute (CMFRI) and the Kerala State Fisheries Department, working with the local fishing community, the certification is a milestone in Marine Stewardship Council (MSC) certification in India, and Ashtamudi short neck clam fishery is only the third fishery in Asia to have received this recognition.
About MSC The Marine Stewardship Council (MSC) is an international non-profit organisation set up to help transform the seafood market to a sustainable basis. The MSC runs the only certification and ecolabelling programme for wild-capture fisheries.
Thank You