Better Supply Chain Management Designs For Fisheries Cooperative In Tamilnadu

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Abstract:
Primary Fishermen and Fisherwomen Cooperative Societies/District Cooperative Federation/TamilNadu State Apex Cooperative Federation. Supply chain is a network of product related through which product move from the point of production to end of consumer, including pre-production and post-consumption activities. The people are getting benefits from government of India. In the same way, fishery cooperatives served to their members for their welfare. Hence such improvement in this fisheries sector will developed in TamilNadu not only for TamilNadu all over India economic level will be increase.

Keywords: Supply Chain, Cooperative, Value Addition, Fishermen, Fisherwomen

The fisheries cooperative societies play a pivotal role in the up lifement of fishermen and fisherwomen in the state. The department is executing various welfare schemes to fishermen and fisherwomen through fisheries cooperative societies. It has 7.04 lakh fishermen and fisherwomen have been enrolled as members of 1,413 Primary Fishermen and Fisherwomen Cooperative Societies/District Cooperative Federation/TamilNadu State Apex Cooperative Federation. Fishermen cooperative societies are 54 full time fair price shops and 13 part time fair price shops.

Supply Chain Management

Supply chain management is a set of approaches utilized to efficiently integrate suppliers, manufactures, warehouses, and storage, so that merchandise is produces and distributed at the right quantities, to the right locations, and at the right time, in order to minimize system wide
costs while satisfying service level requirements. Supply chain networks can lower operating cost and increase product availability, agility, and customer satisfaction.

Supply chain is a network of product related through which product move from the point of production to end of consumer, including pre-production and post-consumption activities.

**MEMBERS OF FISHERIES COOPERATIVE SOCIETIES IN TAMILNADU**

<table>
<thead>
<tr>
<th>Types of Society</th>
<th>No.of Societies</th>
<th>Members of Fisheries Cooperative Societies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Fishermen Cooperative Societies</td>
<td>557</td>
<td>3,55,717</td>
</tr>
<tr>
<td>Marine Fisherwomen Cooperative Societies</td>
<td>452</td>
<td>2,46,417</td>
</tr>
<tr>
<td>Inland Fishermen Cooperative Societies</td>
<td>300</td>
<td>85,458</td>
</tr>
<tr>
<td>Inland Fisherwomen Cooperative Societies</td>
<td>68</td>
<td>7,662</td>
</tr>
<tr>
<td>Other types Societies</td>
<td>24</td>
<td>7,202</td>
</tr>
<tr>
<td><strong>Total Number of Societies and Member Enrolled</strong></td>
<td><strong>1,401</strong></td>
<td><strong>7,02,456</strong></td>
</tr>
</tbody>
</table>

**District Fisher Cooperative Federation**

- 11
- 982

**Tamil Nadu State Apex Fisheries Cooperative Federation**

- 1
- 673

**Total**

- 1,413
- 7,03,221

**Source:** Registrar Co-Operative Societies, Chennai.

**Supply Chain Planning**

Supply chain is effective at maximising the opportunities for adding value in the eyes of the consumer, and efficient in adding value, producing, processing, and distributing at the least cost. With respect to fisheries should focus on those areas that can lead to improvements in supply chain performance.

**Additional Duties of Fishery Cooperative Societies**

Primary Fishery Cooperatives Societies (PFCS) have been serving to people for consuming products directly. The people are getting benefits from government of India. In the same way, fishery cooperatives served to their members for their welfare. However, the members of fisheries cooperative societies are also willing to supply fish to long distances of hinterland
districts in Tamil Nadu and supply of fish all over India at a cooperative cost, in this connection they were contacted and their replies are summerized below. And the researcher collected data from fishery cooperative societies and they would give such kinds of services.

Model of Fishery Cooperative Functions Proposed

The fisheries cooperative societies would follow a model of functions as proposed below. The details are given in Figure.

Model Explained

`i) Role of Cooperatives

a) The cooperative societies could purchase fish from marine and inland fish producers. It would avoid intermediaries in the sector. Cooperative milk societies can be role model for these societies. It benefits both the producer fishermen and consumer.

b) The cooperatives can develop/create Cold Chain Centres (CCC), Value Addition Process (VAP) and Value Chain Activities (VCA) in various places as shown in the Map, so as to customers to directly buy fish from cooperative stalls. These stalls can be located in various parts of the State or market places. Fisher women can be placed in these as women on payment of wages.

ii) Cold Chain (Centres) by Fishery Cooperatives

The fisheries cooperative societies can construct cold chain centres at an average distance of every 20 Kms., in coastal districts in Tamil Nadu. The cost of construction estimate of cold chain centres are given below.

Estimated Value (as on March, 2021)

Broad Technical Parameters for a Five Tonnes Cold (Storage) Chain Centres

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>PARAMETERS</th>
<th>Total Cost (₹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Land Requirement</td>
<td>10,00,000</td>
</tr>
<tr>
<td>2.</td>
<td>Cold Storage Room Height</td>
<td>5,000</td>
</tr>
<tr>
<td>3.</td>
<td>Average Cost of Investment</td>
<td>50,000</td>
</tr>
<tr>
<td></td>
<td>Cost of Civil work</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Insulation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equipment</td>
<td>10,55,000</td>
</tr>
</tbody>
</table>
Model for Fishery Cooperative Functions

The cold (storage) chain centres are to be created as shown in the map in various places. They have to be opened in every marine fishery centres and hinterland districts. The cold (storage) centre could use producer fishermen, wholesalers, and retailers/vendors. Please see route map of supply chain and value addition centres below.
Value Chain Centres in Tamil Nadu

Kilometers

0  35  70  140

77°40'E  79°44'40'E

11°45'20'N  11°45'20'N

9°44'40"N  9°44'40"N
Fishery Cooperatives Create Awareness for Fishermen and Middlemen

Fishery cooperative societies could create some awareness programmes to fishermen and middlemen. The awareness programmes can be done, on application (programme) of fish
buying from fishermen to sell them to the wholesalers, retailers, vendors and customers/consumers through fishery cooperative societies. The societies provide the opportunities to fishermen and middlemen to interact so as to be exposed to awareness programmes like i) Exhibitions ii) Public Seminar iii) Villages Meeting whose details are explained below.

i) Exhibition

The fishery cooperative societies could conduct educative exhibitions for buyers and sellers as well as exporters of fish. The exhibition may be conducted twice a month both in their head office building and fish markets in open. They could help fishermen and their families as well as the middlemen besides a score of general public. This would enable the participants and beneficiaries to understand the following,

1) Nutrient contents of various fishes,
2) Seasonal availability of various fishes,
3) Reason and benefits of dried fishes,
4) Preservation methods of fishes,
5) Comparison of fish as an item of diet with other vegetables and
6) Value addition products through recycling of fish wastage.

Place: Sydney in Australia

Hence, the cooperative societies may create such a kind of awareness programme to benefit the buyers in Tamil Nadu as well as at National level.

ii) Public Seminar

Public seminar is an important component of awareness about the activities of fishery cooperative societies. The cooperatives could conduct awareness seminar for buying and
selling. The seminar would be attended by fishermen and consumers would participate for more awareness about supply chain and value addition process as controlled by cooperatives. Hence, the fishery cooperative societies could do such a kind of awareness programmes for the fishery sector to be developed to next level in future.

### iii) Village Level Meeting for Buying & Selling Fisheries Awareness

The fisheries cooperative societies can create awareness for fish buying and selling services. The awareness mainly focuses to fishermen sell all fish to fishery cooperatives only. The societies can offer at reasonable price compared to other buyers’ viz., wholesalers, commission agents and auctioneers. So there is a strong need for conducting meetings at village level to ensure the purchase and sale through cooperative societies.

### Conclusion

As above indicated, the fisheries cooperative societies or Government of TamilNadu will take the necessary action of supply chain designs the fishermen and fishery activities such as create employment opportunities at the same their income level it will increase. Thus, their socio-economic status level will increase. Hence such improvement in this fisheries sector will developed in TamilNadu not only for TamilNadu all over India economic level will be increase.
Reference: