

PROVISION OF LOCALLY-BASED FISHERY INFRASTRUCTURE: THE PHILIPPINE EXPERIENCE

by

Nelson M. Davila
Manager, Planning and Development Dept., Philippines

ABSTRACT

The paper discusses experiences of the government through the Philippine Fisheries Development Authority (PFDA) in the provision and operation of locally-based municipal fish ports and ice plants to support the fishing industry. Of the 190 fish ports constructed and/or improved by the PFDA, only 4 are presently managed by PFDA and the rest have been turned over for management by the local governments concerned. In addition, the PFDA is administering a total of 25 operational ice plants, of which 11 are leased to the private sector. At present, only 50-60% of the facilities are being used by fishermen, while the rest are not used at all. Reasons for the under- or non-utilization of the facilities were discussed in the paper. The PFDA finds it difficult to financially sustain the operations of the projects, especially the small ones, due to the low level of fees being charged. Financial viability of ice plant operation is affected by the old age of the plants and the very limited market for ice. Relative to the objectives of the workshop, the following recommendations are proposed: (a) Only fishing communities capable of catching at least on (1) ton of fish daily should be provided with fishery support facilities. (b) The facilities should be managed and maintained by fishermen's cooperative. (c) The construction of "horizontal work", such as stairlanding and site development, should be shouldered by the government as a subsidy to the fishermen's cooperatives. The construction of plants and buildings should be shouldered by the cooperative.

1. Background

If I correctly understood the Prospectus, the workshop would like to discuss the following theses:

- 1.1 Development of local level control over coastal fisheries requires basic infrastructures.
- 1.2 The minimum/basic infrastructures required are:
 - small pier

- marketing place
 - storage
 - processing plant
 - meeting hall
- 1.3 These facilities should be situated within fishing communities, within a well-defined narrow locality - to enhance the cohesion of fishermen's and local peoples' activities.
- 1.4 User groups have to effectively use and maintain these facilities. (It was not clear though whether the fishermen will own the facilities or not.)

The topics above will guide the flow of discussions in this paper. This paper will discuss the experiences of the government through the Philippine Fisheries Development Authority in the provision and operation of post-harvest facilities and plants to support the fishing industry.

2. Types of Physical Infrastructure Provided to Fishery Industry

The infrastructure support being provided by government to the fishery industry can be classified into three: fish ports, ice plants and cold storages, processing plants.

Fish Ports

The fish ports are further classified into regional fish ports and municipal fish ports.

(a) Regional Fish Ports

These structures are intended for the service needs of commercial fishing vessels. They are constructed in major fish landing areas or population centers where there are big volumes of fish unloadings, mostly coming from commercial fishing vessels. Consequently, the facilities provided are designed for the use of the commercial fishing vessels although an area is also reserved for use of the smaller municipal fishing vessels. The facilities provided within the regional fish ports include landing quays or piers, market or trading halls, slipways, carpentry and foundry shops and related facilities.

(b) Municipal Fish Ports

The municipal fish ports are smaller in design and magnitude compared to the regional fish ports. These facilities are constructed in municipalities with a

considerable volume of fish unloadings coming from municipal fishing vessels and a few medium-sized commercial fishing vessels.

Ice Plants and Cold Storages

These plants will produce and supply the ice needed by the fishermen to preserve the quality of their catches. The cold storages are intended for the storage of ice and fish catches for a limited period of time.

Processing Plants

The processing facilities provided at present by the government are limited to freezing only. Thus the facilities provided are blast or contact freezers and cold storages. Most products brought to these plants are high-valued species and those intended for exports.

These plants are located within the regional fish ports.

At the moment, the PFDA is studying the construction of small-scale fish processing to assist municipal fishermen to process their own products and thus add value to their products and increase their incomes.

Of the above stated structures and facilities, only the municipal fish ports and ice plants are locally-based or situated at rural fishing communities. For the purposes of this workshop, the succeeding discussions will center only on these two facilities.

3. Description of Facilities Provided

Municipal Fish Port

Within the fish port, there are two main facilities: the trading hall and the fish landing structure. What is the minimum magnitude of these facilities?

(a) Fish Trading Hall

For a trading hall, we have set that the minimum dimension should be 6 m. by 5 m., or an area of 30 sq. m.

This facility can accommodate about one (1) ton of fishery products per trading day. In order to maximize utilization of this minimum basic structure, the fishing community should have a total daily production (or better yet, unloading) of 1 ton of fish and fishery products. If the unloading is lower than this, it is suggested that no trading hall be constructed.

The structure of the trading hall consists of four (4) wooden posts with concrete footings, concrete-paved floor area and galvanized-iron roofing on wooden trusses.

(b) Fish Landing

As a support to the above trading hall, what would be the magnitude (or length) of the landing facility?

At present levels of catch, about 50-100 bancas should call at the port in order to accumulate a total unloading of 1 ton per trading period.

Assuming a 4-hour trading period and only 1 turnover, and a service time of 15 minutes per banca, about 3 berths would be needed. And with an average banca length of 5 meters, the total length of the landing area would be 15 meters.

So, based on the discussions above, the minimum fish port facilities that will be provided to the fishing community will be composed of a 30-sq. m. fish market hall and a 15 m. stairlanding. We classified this as a Type C fish port.

For areas with slightly bigger volume of fish unloadings, a Type B fish port will be provided, the facilities of which will consist of a 60 - sq. m. market hall and a 30 m. stairlanding.

And for areas with very big volume of fish unloadings, beyond 10 tons of fish daily, a Type A fish port will provided. The structures will of course be bigger in magnitude, which will now be subjected to a more detailed study. An option for this type of fish port is the provision of an ice plant and cold storage facility and/or a processing plant. Also, an administration office will be provided.

In summary, the type of fish ports and the minimum volume of fish unloadings required for the establishment of these port are as follows:

| Type | Facilities | | Min. Volume of Unloading |
|------|----------------------|--------------|--------------------------|
| | Market Hall | Stairlanding | |
| A | 30 sq. m. | 15 m. | 1 - 3 MT |
| B | 60 sq. m. | 30 m. | 3 - 10 MT |
| C | (For further study) | | > 10 MT |

Ice Plants

Majority of the ice plants have a capacity of 10 tons per day. Block ice is the common type of ice produced.

The cold storages usually have operating temperatures of -5 °C.

4. Number and Distribution of Fishery Infrastructure

Municipal Fish Ports

During the early years of 1980s, a total of about 180 municipal fish ports were constructed thru the joint efforts of our office (PFDA) and the Department of Public Works and Highways (DPWH), using the selection criteria mentioned before.

For all the completed Type C ports, the responsibility of operating them were turned over to the local government concerned. For some of the Type B and Type A ports, the PFDA opted to manage them solely by ourselves or jointly with the local government.

From 1990 to 1995, with funding from the ADB assisted Fishery Sector Program, the PFDA on its own was able to construct and improve eleven (11) fish ports.

Ice Plants and Cold Storages

At present, the PFDA is administering a total of 25 operational ice plants. Of this number, 14 are directly managed/operated by the PFDA, and 11 are leased to the private sector as part of the privatization thrust of the government.

It must be noted that only three (3) of these plants are newly acquired, no more than three years old. The rest are more than 10 years old, although some them were rehabilitated/repared some years back. These latter plants were merely transferred to our office for administration from another government agency.

5. Experiences of The PFDA in The Operation of Fishery Infrastructure

Utilization of Facilities

(a) Municipal Fish Ports

Based on the surveys of sample projects operated by the local government, only 60% of the fish ports are being used by fishermen. The rest of the 40% are not used.

Reasons for the non-utilization of the fish ports are as follows:

- (i) *Bad condition of structures.* About 40% of the fish ports are in need of repairs/improvement.

- (ii) *Shallow approach to the port.* The bancas can not directly dock at the landing structures, or it can be done only at certain times of the day when the tide is high.
- (iii) *Proximity to another major fish landing area.* The fishermen prefer to land their catch at the nearby bigger fish landing area due to the presence of greater number of fish traders or fish buyers.
- (iv) *Other reasons.* There are fish ports which are in good condition but are not being used by fishermen for landing purposes. One reason for the non-utilization of these ports is the fact that they are not the traditional landing or trading area in the municipality. In other areas, the reason is the minimal volume of catch, thus the fishermen usually land his catch near his residence and sell his catch right there.

Then there are cases where the ports are in sad state of condition but fishermen still use them for lack of alternate place to land and trade their catches. Some of these ports with significant volume of fish unloadings have been recommended for improvement by the PFDA.

The PFDA operated some Type A and Type B fish ports, either by itself or jointly with the concerned local governments. Because of the bigger fish unloadings in these project sites, utilization of the port facilities is significant. Eventually, all these projects will be turned over to the local governments.

(b) **Ice Plants**

Of the ice plants administered by PFDA, about half (52%) are actually operating, and the other half are not operating.

The major problems faced by the PFDA in the management of these ice plants can be summarized as follows:

- (i) *Limited market.* The plants were intended to serve principally the needs of the fishermen. Sale to non-fishermen is rare or nil. This is in conformity with the government's policy not to compete with the private sector.
- (ii) *Old age of plants.* Thus, the plants' operating efficiencies are already low and production costs become expensive.
- (iii) *Competition from private ice plants.* Since the private ice plants are relatively new and have bigger capacities, they can sell their ice at lower price.
- (iv) *The lack of spare parts in the local market.* Because of old age, these plants really need regular repair and maintenance works. Breakdown

of machineries happen and it takes time to bring them back to operation.

Because of the conditions of the plants, it was also difficult to find interested lessees for these plant.

Benefits to the Fishermen:

(a) Municipal Fish Plant

For those projects utilized by the fishermen, they received the following benefits:

(i) *Faster/Easier unloading of catch*

It is now more convenient to the fishermen to land their catches. Before, they have to leave their bancas some place, carry their catch for some distance before they could deliver their catch to the broker or trader/buyer. Now, they can already land their catch directly on the stairlanding which is very near the market hall.

(ii) *Centralized landing and trading activities*

The traders/buyers are now concentrated in one place. Thus, it is more convenient to the fishermen to sell their catches. The fishermen also have the option to select their traders/buyers.

(b) Ice Plants and Cold Storage

The benefit, of course, is the immediate access to the facility. The fishermen do not have to go some place else to buy their ice.

Sustainability of the Projects

It is difficult to financially sustain the operations of the projects, especially the small ones.

The fishermen felt that they must not be required to pay higher fees since the project is operated by the government. They believe that the government should subsidize the operation and maintenance of the facilities.

On the part of management, they felt that any increase in the fees may bring about increase in the retail price of the fish by the traders.

Thus, the fees have continued at its present low.

There is similar difficulty in ice plant operations. For one, our plants are already old. Then we have very limited market - only the fishermen, while the private ice plants can sell even to residential and commercial establishment, like restaurants and eateries.

6. Lessons Learned

Mere presence of infrastructure does not ensure (further) development of the area

The PFDA learned that the provision of structures and facilities in an area is not an assurance that the fishing industry will prosper. Other factors, such as those related to the market, should be given more importance or priority.

The project site should be properly selected.

The important factors in selecting sites for fish ports should be: a. it should be the traditional fish landing/trading area, and b. there is significant volume of fish unloadings.

The other criteria are:

- (a) adequate depth of water
- (b) protection from strong waves and currents
- (c) accessibility (from main highways)
- (d) availability of water and power supplies

For the construction of ice plants, the main criteria are:

- (a) significant volume fish unloadings, specifically the volume of fish surplus for transport outside the community,
- (b) availability of reliable and adequate water and power supplies,
- (c) presence of other ice plants in the area and current ice price (to avoid competition), and
- (d) value/price of fish species unloaded (high-valued species preferred).

Small projects can not be sustained by the government for a long time.

Experience taught us that running a small project is not a viable undertaking for the government. It can not be sustained financially for a long time.

The government has its constraints in the operations of facilities. First, it has to follow some auditing regulations. For example, one regulation requires that the head of the facility should not handle the money matters of the facility, for control purposes. Thus, even if the business is not good, the plant has to maintain a separate cashier.

Secondly, the salaries of the personnel follow the same rate as those in the central office, including all the regular allowances and bonuses, if any.

Thirdly, some personnel occupy permanent positions. Thus, during slowdown in operations when market is not good, these personnel continue to receive their full salaries even when they were not fully employed.

7. Recommendation

Relative to the objectives of this workshop, I propose the following recommendation:

Minimum Size of Fishing Community

In putting up fishery-support facilities, a certain size must be required of the fishing community that will be served by the facilities.

For the basic fish port facilities (Type C), it is recommended that the fishermen in the community be able to unload a minimum daily volume of one (1) ton of fish.

Experience has taught us that the municipal fishermen, with their small bancas, do not have much need for a landing facility. They can land their catch anywhere along the shore area.

And if the aggregate catch of these fishermen will not reach one (1) ton, then the market hall and the landing facility will be very much underutilized - which means waste of valuable funds.

Organization of Fishermen into Cooperatives

If facilities will be established in a fishing community, there must be a group or entity to run, manage and maintain the facilities.

Definitely, the facilities to be put up is small or limited in magnitude. It is better that the facility be managed and maintained by the user themselves - the fishermen. Since it their own livelihood which is at stake, they would try their best for the success of the project.

The facility has also better chances of success under a local cooperative because the salary rates will be commensurate to the volume of business and tenure will be based on actual need. Also, the cooperative has a captive market - the members of the cooperative themselves.

Government Subsidy in terms of Infrastructure Support

Construction of the fish ports require big investment which is beyond the financial capability of the fishermen's cooperatives.

To cut down on cost for the cooperatives, it is recommended that the "horizontal works", like the stairlanding, shore protection, reclamation and site **development, be shouldered** by the government as a form of subsidy to the fishery cooperatives.

The construction of the market hall can already be shouldered by the cooperative. They can recover the cost through the imposition of fees and charges to the users of the hall.