

Farmer and trader dialogues

DIALOGUE WITH FARMERS

The workshop participants visited Nanhu Village, Gunagzhou, People's Republic of China on 9 March 2006 to view aquaculture facilities, discuss with marine fish farmers and better understand the status and issues associated with marine fish-farm development in the village. The intention was to ensure that the regional programme development was informed by the concerns of farmers. The following reports the main points arising during the dialogue:

- Eight experienced farmers from Nan Hu Village met with the workshop participants. Among them was one who has been a cage operator for over 20 years.
- Most of the present cage culturists were fishers. Cage culture was introduced to the area in the early 1980s. During the period 1983–1986, the price of finfish, especially seabream and groupers, was very high and farming was profitable. By the late 1980s, farmers began facing some difficulties due to increases in the price of feed and seed, outbreaks of disease and more people entering cage culture. During 1998–1999, they suffered mass mortalities from red tides. Since then the number of farmers has decreased.
- Nan Hu Village used to have 150 households, of which 90 percent were engaged in cage culture. Currently, the number of households has gone down to 100, with only three practicing cage culture. Most of the village people who stopped cage farming went back to fishing. Therefore, most of the cages situated inside the bay are empty and those that are operating are being run by people who have moved in from other areas of China. These newcomers are mostly using the cages as holding facilities for the trading of live fish from wild fisheries.
- The cage culture operations in the village are small scale and family based and devoted to the culture of high-value species. Feed is trash fish. Some farmers tried pellet feed but they claimed that the formulated feed affected the appearance and taste of the fish and so abandoned its use.
- The market-size fish are delivered to Shenzhen, China, Hong Kong SAR by boat and to Guangzhou by truck. On average they are receiving US\$4–5/kg for green grouper. Among the various middlemen, China, Hong Kong SAR buyers usually offer the highest price. There used to be a high demand for green grouper of the



size 1.5 kg but nowadays smaller size fish are more in demand. The farmers think there has been a change in the consumer patterns; a smaller fish is more suitable for a family of two or three people.

- Even though they are located close to major fish markets, the generally low efficiency of farm operations is making the farming business difficult. Species in the markets are diversified and prices of local species are going down by as much as 50 percent for some species even as the cost of production remains the same or increases (annual costs of seed and feed for a small farm are 10 000 and 20 000–30 000 Yuan, respectively). Currently hatchery-reared seed are available for seabream, kingfish and green grouper, but there is still a shortage of seed for high-value grouper species.
- Environmental concerns include oil spills and leakages and other water pollution. They attribute the increasing pollution to the increased number of people who have settled in the village, many of whose homes are without proper sewage disposal and with no municipal sewage treatment system in place. They think this has increased the frequency of red tides. One farmer commented that waste feeds from farms are also causing pollution in the bay. The transparency of the water was 5–10 m in the early 1980s but is now less than a few meters. As well as the increasing turbidity, the mean temperatures are higher and the maximum water temperature exceeds 31 °C.
- There is no formal farming group, but many of the farmers are extended family members, relatives and friends. Because of the change in the economic situation, and with the family being the smallest unit, farmers feel it is difficult to organize a farmer association, which would have been useful for price negotiations.
- There is no conflict between cage farmers and other water resource users such as fishers and tourist operators because they are mostly members of extended families, relatives and friends, and they respect their activities as a whole community.
- In 2002 an ocean and coastal area management regulation was put in place. The regulation includes a zoning plan for the coastline (including Nan Hai Bay). Previously, aquaculture activities were controlled by the village, but under this regulation the local government assumed control of administration and issuance of licences. Under the government regulations only registration is required and there is no strict restriction about the zoning, i.e. siting of farms in the bay. There is also an environmental regulation and policy in place, but one farmer said he saw no impact on changes in practices or on catches.
- In response to disease occurrence such as gill rot and infections that usually cause mortalities, the workers at the local fisheries institute and the extension office visit the area and advise farmers on control measures, including what chemicals to apply and how to reduce the future risk of disease. There were no regulations on the use of chemicals until recently. The drugs were mixed with the feed or applied through a freshwater bath.
- Another service provided by the authorities is a regular weather bulletin and typhoon warnings.

- Some of the farmers have changed to scallop farming, but they claim that scallop farms are more labour intensive and difficult for the small-scale family to operate. People in the village are aware of offshore-type cages but do not have the capital and experience for such a system. Because cage culture is seen as a high-risk business, the farmers cannot secure bank loans. The younger generation has little interest in fish farming because they think that the big companies with industrial-scale operations will dominate the sector.
- **Private industry: Xulian Group.** A large-scale aquaculture company operates in the area. The company is planning to install submerged cages in deeper areas to minimize the impacts of disease and other risks such as typhoon. They are expecting that better survival and higher quality will result from growing the fish in cleaner water. The company has gone on a study tour to Norway and Australia to learn the technology and the management of industrial-scale farming.
- The challenges that they may foresee include the costs of intensification of the operation and for machinery (net cleaner, harvest, etc.) and operational difficulties for treatment of disease in a larger scale. Their main concern is how to improve the cost effectiveness of the operations. However, the market in Shenzhen has a huge potential and there are seven million people in China, Hong Kong SAR, which receives 90 percent of its fish supply from overseas. They think that developing the marine culture industry in China will reduce China and China, Hong Kong SAR's reliance on overseas supply. This is the reason the company's farm has been set up in Daokon Bay, which is close to China, Hong Kong SAR. They plan to produce and trade, acting as brokers for imports. The company sees further opportunities for the industry to grow in this area. The younger generation, while no longer interested in farming, could be employed by industrial-scale operations. In addition, the area has potential as a tourist destination, its attractions including the possibility of enjoying good quality low-priced seafood.

DIALOGUE WITH TRADERS

The workshop participants visited Guangzhou Huangsha Seafood Market (China) on 10 March 2006 to view the market and its facilities, discuss with traders and managers and better understand the status and issues associated with mariculture marketing in Guangzhou. The intention was to ensure that the regional programme development was informed by the concerns of farmers. The following reports the main points arising during the dialogue:

- In 1995, the Ministry of Agriculture designated three major fish wholesale markets as key markets for China – Dalian (north), Shanghai (central) and Guangzhou (south).
- The Guangzhou Market was established in 1994, starting as the Guangzhou Fish Wholesale Market but is now in transition to become the Guangzhou Aquatic Products Central Wholesale Market. The current expansion has completed phase one of three phases. Originally occupying 2.6 ha, it has expanded to over 5 ha: the building area is more than 190 000 m². The market has a centralized system of seawater supply (filtered and chilled). The number of traders is about 300 (250 renting



the existing space and 50 from the joint venture company that is funding the expansion). There is a fee for traders covering space rental that includes water supply, utilities, etc.

- The market is jointly owned and operated by the Municipal Port Authority and Guangzhou Municipal Fish Product Marketing Company. The market is now basically a fish wholesale market but the new market will have more functions. The ground and second floors are for trading of live aquatic products, the third floor for dried and processed products and the fourth floor will be rented to restaurant operators. A hotel is planned to be built as part of the effort to attract more tourists.
- Products from the market reach other markets and cities in the Pearl River delta as well as other cities throughout the country. The sources of the products are China and 20 other countries and territories. Daily trading volume is now about 500 tonnes and annual trading volume is about 180 000–190 000 tonnes with a total value of around 6–7 billion Yuan (close to US\$1 billion).
- Most of the traded products are live but plans are to increase the volume of freshly chilled and frozen products. Compared with other markets in China, the Guangzhou market has the longest list of traded species: over 200 species traded. The market employs its own staff but also has support from the municipality, i.e. police, traffic wardens, trash collection and disposal, etc.
- The market has a functional system for quality inspection. According to government regulation, a system has been set up for testing and recording, which allows tracing products back to suppliers and location. Random sampling is conducted. Testing and monitoring covers live seafood for antibiotics and drugs used in transportation. Certain reef species are tested for ciguatera. The market has recently warned the traders on the sale of Napoleon wrasse after the species was listed in CITES. The traders think a law will be issued banning its sale. Young live Napoleon wrasses fetch the highest price, followed by the humpback or mouse grouper (*Cromileptes altivelis*).
- The market also has controls that limit entry of suppliers to the market. In order to be able to trade products to this market, the producers must be certified to allow them to supply.
- Most of the traders do not import directly but buy from importers, usually based in China, Hong Kong SAR. A lot of the product is transshipped through China, Hong Kong SAR. There are different types of operations; some traders are producers who sell their own product and also sell to other traders, others are merely traders. Marketing tools used by the wholesalers to attract customers are usually offers of preferential prices for regular customers (mostly big seafood restaurants with whom they have long-standing relationships). Adding new species to the list also attracts new customers. An example is the recent addition of South African abalone and a species of shrimp. The market is being promoted as a “market”. There is no specific promotion of individuals or individual products. For products from China, there are direct supply agreements and direct contracts to provide the products on a case by case basis. Live seafood imported through China, Hong Kong SAR is under a long-term contract with the China, Hong Kong SAR traders, who are usually relatives.

- The prices are generally constant but are sensitive to supply in the market so that availability of some species will strongly affect price. Of the products on sale, about 51 percent are freshwater and the rest are marine. Of the marine species, about 10 percent by volume is imported. One percent of this is directly imported. Countries that are imported from directly are Australia, Norway, Canada, Philippines, Malaysia, Thailand and Viet Nam. Generally if there is a direct flight, imports are directly shipped to Guangzhou, otherwise the products enter via China, Hong Kong SAR. Most of the imported products are traded through China, Hong Kong SAR, but the traders said they would prefer to deal directly with the exporting countries to shorten the market chain and reduce the transaction costs. A direct link might also increase the volume that is traded.
- The future outlook, based on the previous trends is that the split between marine and freshwater is likely to stay the same. It does appear that cultured species are increasing and wild captured species are decreasing. There is, however, a nationwide preference for wild fish (seen as higher prices). Most of the imported species are wild captured, very few are from aquaculture.
- There are slight changes for some of the traded species. Lobster volumes are decreasing. The traders are looking for new species to add to their lists, but there has been relatively little development of new species. The trend is that more people are able to afford live fish, as seen from the increase in traded volume. This increase is made possible by their ability to market their products into other regions of China, not just Guangzhou. Improving transportation and ability to maintain live fish have spread the live fish market widely. The live fish trading volume will probably stay the same but increases are foreseen in the trading of chilled or frozen products. Import tariffs are being lowered.
- Imported molluscs have to compete with the products from Dalian Province in northern China. Unless their price is competitive, imports would have difficulty entering the Chinese market. Some mollusc species that used to be expensive are getting cheaper (e.g. *Babylonia* snail) due to imports.
- From aquaculture the traders wanted more geoduck, lobsters and some species of grouper such as the giant and tiger groupers.
- It appeared from the plans for expansion that the operators were not concerned or aware of the impact this enormous fish market might have on the existing marine environments of not only China but of the countries from which they import the various species.

