

### **MATERIALS ARRANGEMENT**

Generally, in most third world countries fish and most fish products are sold fresh, dried, smoked or frozen and these enterprises are women dominate.

As there is a general lack of storage facilities in these countries, a large proportion of the catch, sometimes up to 50%, perish at peak periods in artisanal fisheries. Thus, for pond reared fish, as well as fish caught in the wild, there is needs to dispose off the stock early on the day it is harvested. In some areas, like Lake Kainji (Nigeria) women fish traders have established their own battery of large domestic freezers to preserve catches prior to transportation to cities. In areas which are far removed from this type of preservation, some form of processing is practiced, almost exclusively by women. Smoking is the favoured form of preservation, especially where availability of firewood is not a constraint. In place where smoking is too expensive, salt drying is sometimes employed. However, in some countries, fishermen co-operatives transport their catches in refrigerated trunks to government cold stores where they are sold gradually to the public and the co-operatives maximize their profits. Generally, most fishermen have regular customers, the fish trader who buys their entire catches wholesale. The relationship between the fishermen and the fish traders is one of survival through close co-operation. They are virtually partners as the fishermen sell exclusively to the fish traders, who support them through both good and bad times, sometimes even providing netting materials and at times “chop money”. Some even buy the boat. These women therefore have a virtual monopoly on landings in their spheres of influence.

The fish farmers, is not subject to the uncertainties of capture fisheries thus can afford to enter the market at any point of his own choosing. He has a choice of disposing of the crop wholesale or retail at the pond side or farm gate. In some cases a commodity broker may purchase all the stock in the pond while it is still growing. There is also a choice of selling the crop in the city if it can be transported there in good condition. In this case, he has a choice of selling wholesale or retail to a wider range of customers including fishmongers, hotels and restaurants, schools, staff canteens, pepper soup joints, fast food chains, catering concerns and individuals. The fish may be sold graded, continuously e.g. compulsory mixed in size or with discounts to promote a new type of fish, sell off old stock or small slow-selling fish species.

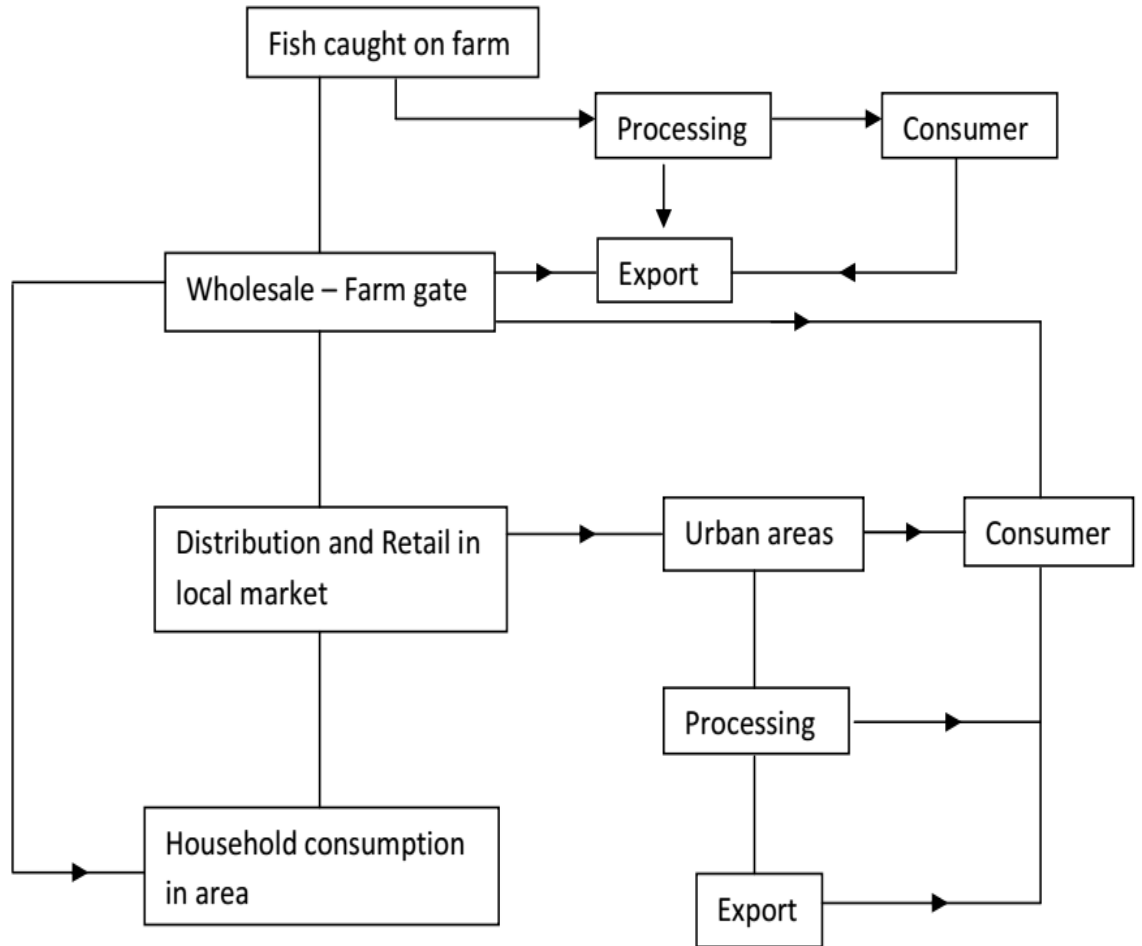
Naturally retailing fetches higher income but there is need for holding and storage facilities and therefore considered investment on infrastructure. In all these situations, the fish farmer exercises a high degree of control on the pricing of the product. However, due to frequent lack of preservation facilities fish prices from farms with little infrastructure back-up tend to be high in morning hours, falling towards the evening in a bid to dispose of the fish, thus avoiding having to smoke them. Similarly, prices are high in the rainy seasons as the competing artisanal capture fisheries are at their lowest productivity.

The demand for a particular food item is generally function of the pricing. If the price of a product rises above its perceived value, most consumers will use a substitute product. This is even the case with fish and meat products. While fish prices must be maintained at levels which enable processors and / or retailers to realize a profit, they must at least be competitive with meat prices. Aqua culturists have real and potentials advantages in this regard as the industry is still young and new develops and on-going research in fish nutrients and production techniques have increase yield per hectare quite significantly. Therefore, with improved production techniques, production costs will be kept down whilst yields increase. This will allow some stability in pricing in the face of increased prices of competing protein sources.

At the same time, profit will continue to grow. The need for consistency high quality fish and fish products is obvious. Increased sales can be generated only by repeat sales. In order to achieve this is the quality of the fish and fish products must be, and remain, uniformly high. Fish and sea food exhibit very high spoilage rate, so care must be taken to assure good quality. Once a consumer purchases a package of fish with lower than anticipated quality, it will be a long time before he or she will make another purchase of that products. Certainly, the customer will be reluctant to come back to the source again. In order to achieve high repeat sales, there must be excellent co-operation between producers, processors and markets. The raw product must be produced so that quality is uniform, processing must be rapid to prevent loss of quality, and the properly packaged product must be stored under conditions which will maintain quality. There may be a need for customers to be advised on fish handling to preserve taste and quality, such as the need to avoid delay in getting fresh fish home to prevent spoilage.

**MARKETING OF FINGERLINGS**

The marketing of fry and fingerlings produced or marketed through a fish farm is a specialized enterprise. In this undertaking various methods may be employed to hold the fish, count them and package them for onward transportation to the customer. Generally, fry and fingerlings are sold in hundreds or thousands i.e. the price is quoted for 100 or per 1000 and invariably, a proper commitment from the customer is essential before the fish seed are transformed from the pond or tank to the holding facility. Sales of small quantities in the hundreds may be undertaken on a cash and carry basis, provided the fish are already in the holding facility.



**Marketing components of the aquaculture**