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# Freshwater Aquaculture Fisheries Innovation and Fresh Fish Marketing Jeydan Ferouk<sup>1</sup>, Barthulomeus Seymour<sup>1</sup>

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#### **Abstract**

In this article the care and promotion of freshwater fish is discussed. The stages of cultivation include the development medium preparation, supply of indulges/seed dispersal, management of water, management of feedstuff, pest control and disease management. Furthermore, advances on the marketing of freshwater fish are aimed at enhancing the economy of the population in terms of revenue, processing, delivery, entry, and utilization of products that provide the resources of the community. Innovation of fresh fish marketing A number of operations are linked to each other in the fishing agri-business framework including the sourcing, manufacturing, post-harvest processing (agro-industries), marketing and institutions. There is a method to produce a commodity all things in the fisheries agribusiness. In all operations producing products or services, marketing activities are also relevant. Fisheries may be divided into commodities and commodities.

Keywords: Fish Farming, Marketing Innovation, Aquaculture

#### Introduction

The Group has long recognized the cultivation of freshwater fish. Aquaculture in the narrow sense is the attempt to raise fish that historically existed wild in nature into aquarium fish. All attempts to raise and procure fish are attributable to the human presence, irrespective of whether the fish are still wild in nature or have their own location. Cultivation not only increases fish in streams, pools, rice fields, but also involves substantial fish farming practices in lakes, rivers, or the sea. Fish farming is an attempt to use current tools to accomplish shared objectives within the community. Cultivation is a method of human action to boost water productivity (Molden et al., 2007; Lata, 2019). This is to deliver fish in containers or to regulated and profitable newspapers. This operation is carried out. The human position in producing and increasing water productivity is aimed at making profit, particularly in freshwater fish. The hope is to multiply and abundantly the results. The activities covered by fisheries originate in a fishery business environment from pre-production, manufacturing, refining and marketing. Fisheries may also be called an agrocompany. Fisheries are generally designed to provide people with food. For equal or more successful fishery productivity than the products of wild fish. Awareness of the factors influencing the production of seeds, development of upkeep, irrigation, feed and fertilization as well as control of pests and diseases should be provided to achieve this objective. For a fish farm properly to operate, many provisions such as the conservation of the site and the landscape on ground type, topography, water quality and availability, and water temperature must be taken into account. Their environmental requirements should be determined. The market planning for fish farming covers business unit scale, availability of water and drying systems (Little & Edwards, 2003). A pond is planned depending on its scale, pond form, pond depth and pond content. The pond shape and material are used to produce a pond. The preparation of the cultivation methods is focused on biological and economic considerations, management methods and annual fish and other aquatic organism maintenance and breeding plans. Aquaculture is also classified as aquaculture and aquaculture is grown not only by fish but also by other aquatic species, including shellfish, shrimp and aquatic plants. Fish in general refers not only to marine species with gills, but also to all creatures living in water such as shrimp, shellfish and aquatic plants. The intended advantages or outcomes of the fish farm may also be in the type or for self-consumption purposes of fish processing that can be exported. Aquaculture practices may also have therapeutic advantages, such as in the breeding of ornamental fish, as a recreation or for entertainment (Cai et al., 2009). The phases of introduction of farming In general, the following phases of fish farming include:

#### **Production Media Preparation**

The output media must be preserved or restored each time the production cycle starts (Frosch & Gallopoulos, 1989). The arrangements in aquarium hatcheries include aquarium washing, water sterilization and water filling as a culture medium. Damping, repair channels, calibration and fertilization are part of preparatory exercises for nurseries and pond breeding. Meanwhile, in floating net cages, the preparatory exercises include the washing and rehabilitation of net bags, as well as the reinforcement of rigging.

Parent provision / Seed dissemination

Require the supply of prepared spawning broodstock for activities in the hatchery market. Put the parent in pairs, monitor the time to complete the spawning, pass the larvae, hatch and increase the seed. Seeding is done after growing media is ready for nursery and enlargement efforts. There should be reasonable quality of seeds picked. The seeds must be acclimatized to fit their new setting before storage. During maintenance do seed aeration until the target period mentioned.

#### Regulation of Water

The regulation of water quality is a way to regulate water levels in the aquacultural pond such that the livelihood of the fish to be brought up matches. Including water temperature, dissolved oxygen levels, salt levels and environmental pollutants. Water quality metrics that significantly influence fish Temperature of the water is a crucial consideration to remember as it may influence the rate of metabolism in the fish body. The metabolic rate rises at high temperatures, while the metabolism rate decreases at low temperatures. The metabolic rate is optimal with optimum temperature (Khan et al., 2014). For fish, the water oxygen level is quite critical. Dissolved oxygen is considered the oxygen used by live fish in the water. Optimum fish development if more than 3 ppm of dissolved oxygen are present. Dissolved oxygen content below 3 ppm can delay fish development, even death. High salinity or salinity means that fish need less energy for osmoregulation, thereby reducing energy usage for development (Xiong et al., 2020; Almeida et al., 2013; Tian et al., 2020). Water for cultivating media must not be polluted with toxic waste or domestic waste in order for fish to develop well. Environmental pollution Fish growing well can be seen from the nude or not from the pond. To assess turbidity levels of pool water, a strong clarity in pools of water varies from 25-40 cm can be seen from the degree of transparency of pool water. This indicates the interval between the visual limit and the surface of the water is between 25-45 cm.

#### Control of Feed

Feed management should take place, especially in hatchery operations where fish seeds need adequate quantities of high quality feed. The dietary requirements of fish have to be changed

for feeding. Thus it is possible to adequately consume the nutrient value of the meal (Elliott & Persson, 1978). Feed can be given progressively or gradually. This is intended to prevent loss of feed. In the culture media the residual feed can pollute so as to increase the value of the FCR (feed conversion route).

### Regulation of Plague and Disease

Regulation of pesticides and diseases must always be done or all fish that are grown will be destroyed by pests and diseases.

6 Pests are alarming species, which either immediately or eventually will harm, destroy and impact productivity. The plagues may include pests (predators), rivals (rivals) and facilities destroyers, e.g., free (notonecta), snakes, frogs, cybister larvae. Since disease is something that may disturb fish, e.g., skin disease, gill disease, internal organ disease. Controls may be done from land planning / cultivation newspapers, quality protection of feeding water, including monitoring of the sudden spread of disease. Prevention is safer than medication after the illness. The delay in care, in addition to the significant medical expenses, will lead to mass mortality. Naturally, the care that is carried out would use medicines containing non-prohibited chemical compounds that do not affect people and the community.

## Marketing innovations in freshwater fish

An rise in the economy may be seen as a transformation or increase in anything relating to income, output, delivery, revenue and usage of commodities that are the source of wealth for individuals. There are two sides which show economic change, the first from the business development side, and the second from the family's economic point of view. The growth of companies is known as a process of growing the volume of a company. As the company expands, the family economy often develops, as seen by the growth in income in the family. The metrics used in evaluating the performance of a Benedicta Dwi Riyanti company are important from many fundamental aspects: increased accumulation of resources, overall production, consumer numbers, extension of business and upgrade of physical facilities. The economic growth of citizens is meanwhile an industry that is owned and regulated by the tiny population. In the development of a populist industry, an economic structure dependent on people, people and people is to be developed. Building a popular economy involves growing the community's capability by improving and inspiring its ability. The mobilization of capital to improve the productive capacity of the population would enhance the Community's competitiveness in order to extract and use human and natural resources in the community (Cassman et al., 2003). The society is willing to contribute and promote added benefit in a participatory way that enhances its wealth and well-being. Three facets of people's economic growth can be shown, namely (1) Creating an atmosphere or environment that helps the society to grow its capacity. The starting point of his thinking is an awareness about the potential of a human being. No company is completely unhelpful. (2) Reinforcement of the Community's economic potential. The key effort is to improve schooling, health status and the opening of opportunities to take advantage of economic opportunities in order to enhance the economic capacity of the population. (3) Development of the population economy often involves defending the environment, avoiding unbalanced rivalry and preventing strong economic classes from being taken advantage of by the poor. Endorsement efforts and the advancement of its programs remain part of the community's efforts to preserve it.

Innovation of fresh fish marketing A number of operations are linked to each other in the fishing agri-business framework including the sourcing, manufacturing, post-harvest

processing (agro-industries), marketing and institutions. There is a method to produce a commodity all things in the fisheries agribusiness. Manufacturers involved with manufacturing can manufacture goods that meet the production requirements. Producers involved in the manufacture of products or fish would be able to satisfy agro-industrial needs. Marketing practices are particularly relevant as the commodity is manufactured in agriculture, manufacturing and agro-industry activities. All the items manufactured are worthless stacks of merchandise without marketing efforts.

In all activities that produce goods or services, marketing activities are thus very important. Fisheries may be divided into commodities and commodities. It may be imported as a raw material by factories or manufacturing companies for production into finished products such as canned fish, different frozen fish, fish meals etc. It is sold by end users as consumer products (household consumers, restaurants, hospitals, etc.). Fishing and aquatic items, including perishable products, would include a marketing approach separate from goods and services in general. In addition, the 'picture' of the group is often distinct, or vary in general with regard to fishery items. Only fish that smell fish, fish with plenty of spins, teaser fish, cooking fish, and fish can be fried or, at best, fried are the public perception of the fishery and marine products, based on or input from marketing fishery and marine products. As the public image of fishery products is still so complex, a marketing strategy must be developed to change this image in order to overcome the sale of fishery and marine products.

A corporate tactic for getting the requested answer is the marketing approach or marketing combination. One of the attempts to improve the selling method is the marketing approach. The marketing principle is aimed at an organisation that relies on each company/marketer to consider and meet their clients' expectations and wishes as well as rivals in a more productive and profitable manner.

In order to determine their preferences and wishes, a marketer has to rely first of all on consumers. Thus, the customer's preferences and wishes are central in this situation. Companies or marketers need to understand their customers' needs well. Keep in mind again the consumers order whether to purchase a commodity or not. Customers are thus part of the market because both the actual purchaser and the potential purchaser are called the market. The market is very diverse, which means that buyers' wishes are different. Which prevents an organization or marketer from meeting both the requirements and requirements of the market.

So, if the market tastes turn out to be very diverse, enterprises or marketers. The corporation first has to segment the industry. The company has to decide the target client in other words (target customer). These target consumers are youth, parents, children, lower, middle, upper social classes, and so forth in fishery and marine goods. Children are now enjoying snacks on 'fish tempura,' so that the company makes the nutritious and safe fish tempura for children. This ensures there are no toxic substances in children's and people's intakes in general. Secondly, in order for the customer to react, the company must provoke the target market. How should clients believe, then, that the goods we produce or sell are the correct ones. How does the organization want to respond? The answer lies in the market's recognition, in making the product an option, in purchasing the product and in being a faithful client.

To obtain this answer, the organization must produce a commodity that meets the expectations and preferences of the target market, decide the right price for the target market (not too costly and not too cheap), supply goods to locations normally visited by the target

market, and format the promotion to which they are offered. And the goal demographic hit his strategies. A tactic that the corporation can monitor that is aimed at getting the optimal consumer reaction, including the commodity, price, position and advertising, known as the 4 P marketing mix. The marketing mix.

#### Conclusion

The aim of fishing is to provide people with food. For equal or more successful fishery productivity than the products of wild fish. For a fish farm properly to operate, many provisions such as the conservation of the site and the landscape on ground type, topography, water quality and availability, and water temperature must be taken into account. Their environmental requirements should be determined. The market planning for fish farming covers business unit scale, availability of water and drying systems. A pond is planned depending on its scale, pond form, pond depth and pond content. The pond shape and material are used to produce a pond. Aquaculture practices may also have therapeutic advantages, such as in the breeding of ornamental fish, as a recreation or for entertainment. Innovation of fresh fish marketing A number of operations are linked to each other in the fishing agri-business framework including the sourcing, manufacturing, post-harvest processing (agro-industries), marketing and institutions. There is a method of manufacturing a commodity for all operations in the agricultural sector.

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