

Investigating the Importance and Goals of Economic Fish Farming in Faryab Province

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ABSTRACT

This research is about the importance and goals of fish farming in Faryab province, considering the world's population which is constantly increasing and its growth will not stop at any time, there is no doubt that the world's current food industry will not meet the needs and humans must think about food sources for new protein sources.

Fish is one of the most important resources for humans, especially food sources: major fishermen and people who catch fish only for a living catch these animals from the wild.

The importance of this current research on the importance of fish farming in our Faryab, regardless of the fact that it provides part of the food rich in protein needed by our country. It is an important source of employment for unemployed people in the rural areas of Faryab province. On the other hand, Faryab Province, with its diverse climatic conditions, and abundant natural facilities, has a good background for breeding activities of freshwater and warm water fish. It can be seen that different districts of Faryab Province have a blessed sea that has prepared a colorful table for thousands of living creatures.

The main purpose of conducting research is to obtain information about the importance and objectives of fish farming in Faryab province, and with the increase in population, the demand for aquatic products, especially fish meat, is increasing. At present, fish meat food is promoted in many restaurants in Faryab province and fish meat has a good market in this province, so in this regard, every day tens of kilos of high-quality raw fish enter Faryab province from the provinces and districts of Afghanistan. This is proof of having a good domestic market for fish meat in Faryab province.

Fish resources are renewable resources. A large number of people in developed and developing countries are busy working in this sector. Fish breeding and hunting are one of the most beneficial jobs for the people of the world, Afghanistan, and especially the people of Faryab province. Fish meat provides approximately 14 percent of the animal protein needed by the world's population. In a number of developing countries, fish is a supplementary food component of the people's diet. Fish farming and fishing are a source of employment and foreign currency income in developed and developing countries. The necessary information about the background of this research was collected from books, articles, and authentic scientific journals, and in the findings section, the necessary information was collected using a questionnaire, and the results after analysis were included in the findings section.

Keywords- economy, importance, breeding, fish, Faryab province.

I. INTRODUCTION

Now, in all countries, when production is discussed and the country's gross national income is considered an indicator of economic growth, production centers are considered more.

The production of meat and meat products also finds its special place. After several decades of producing

protein products, fish farming and using fish as a suitable protein source have found a place in the daily consumption basket of all societies.

In European countries, the per capita consumption of fish in the annual consumption basket is 15 to 20 kilos per person, while this amount of fish in Asian countries is 1 to 5 kilos, which of course has received more attention in recent years because more Half

of its protein materials are absorbed by the body, and man, as the most effective creation of God, is a pity to be deprived of the value of God's special gifts and blessings.

Fish as an essential source of animal protein after the rice is the second essential component of the diet of the low-income group of people in many developing nations. With the increase in the world's population, the need for fish production also increases. And the change in consumption patterns in developed countries (20 and 30), more than 36 million people in the world are directly working in the sector of fishing and fish farming, and about 200 million people indirectly benefit from its income. In their study, Yang Yu Feng and his colleagues concluded that the breeding of marine animals can increase the income of farmers in addition to supplying fresh live seafood to the consumption markets (Mohammadi, 2008).

II. IMPORTANCE OF RESEARCH

The importance of fish farming in Faryab province regardless of the fact that it provides part of the food rich in protein needed by this province. It is an important source of employment for unemployed people in rural areas in the districts of Faryab province. The side of Faryab province has 296 million cubic meters and also has diverse climatic conditions, and many natural facilities, it has a good background for breeding activities of cold water and warm water fish. It is possible to name the different districts of Faryab province with 7 blessed seas that have prepared a colorful table for thousands of living creatures. The development of this industry in the future can have a good place in the development, economic and social programs of Faryab Province. Therefore, it is the mission of the Department of Agriculture of Faryab Province and the Ministry of Agriculture to promote and develop fish farming, educate farmers to familiarize them with the technology of fish farming, and create reproduction and production centers through the government, partner institutions, and the private sector. Take the steadfastness that the food we eat must be produced by the capable hands of the farmers of our land, Afghanistan, Faryab province.

III. OBJECTS OF RESEARCH

The main objectives of this research are to investigate the importance and objectives of economic fish breeding in Faryab Province in order to better use fish resources.

- 1- Investigation of the use of fish resources in Faryab province.
- 2- Obtaining information regarding the economic importance of fish in Faryab province.

IV. RESEARCH QUESTIONS

- 1- In terms of economy, how much are fish resources in the lives of the people of Faryab province?
- 2- What are the limitations and opportunities in the fish resources sector in Faryab province?

V. METHODOLOGY

In this research under the title (investigating the importance and objectives of economic fish breeding in Faryab Province), mixed methods (field and library) have been used. The field method with mixed methods (field and library) is used in all scientific research. Considering the role of field and library methods in scientific research, researchers must be aware of this method. Based on the studies I had about this method, I found that the first step in field and library research skills is familiarity with how to use questionnaires, questions, interviews, libraries, and books. It relies on the results of field and library research until the end. I studied the subject based on the sources.

VI. LITERATURE OF REVIEW

Historical evidence proves that fishes are important aquatic creatures from the point of view of economy and food for humans. Ancient works show that fish existed on earth at least (500) years before the appearance of humans. The patterns and shapes obtained from the tombs of the ancient Egyptians show that tilapia fish was present in the waters of that land about (2500) years ago, similarly, carp fish was present in China (2400) years ago. that there are different types of fish in the country's waters, which are known by different names in different places, such as lionfish, spotted fish, speckled fish, etc. (Tanin, 2009).

Afghanistan has a long history in terms of having fish in the sea, and fish farming in farms since 1345 AH. It continues in this direction, but the amount of fish meat in the market is low because the natural fish stocks are threatened in various ways, fishing by other technical means (use of generator electricity, etc.), drying of some lines and ponds in hot seasons. And the likes are among the threats to natural fish stocks. Currently, the demand for fish meat in the markets of the country is more than what is produced inside the country, therefore, 5000-9000 kg of fish are imported daily without control and allowance depending on the season (Amiri, 2018).

Industrial and large-scale domestic fishing activities, as well as activities in the Great Lakes of Africa, can produce hundreds of millions of US dollars worth of fish, which are often exported. (FAO2010).

At the global level, aquaculture has increased from the production of fewer than one million tons in 1950 to 52.5 million tons in 2008, which is equivalent to 45.7% of the world's fish production that reaches human consumption. The integrated method of using water and

land in many parts has been successfully applied around the world (ICLARM2001).

In the Middle Ages, fishing in countries such as Czechoslovakia was. they are rich in Germany. Romania. etc. has been spread over the years, the reproduction and cultivation of fish from the natural form to the artificial form, the keeping of fish in ponds, and the cultivation of small and large fish ponds have changed according to the needs of the people since the 18th century. It is known that it is mentioned immediately (Tegin, 2012).

Salmon fish are spread all over the world and without a doubt, after carp, it is considered the most important and oldest fish farming, and salmon fish is also bred in Faryab province. This fish has a lot of economic value, salmon is easier to adapt to the conditions of the breeding environment (Farahani, 2012).

VII. PRODUCTION OF FISH FARMING IN FARYAB PROVINCE

Fish production as an economic investment is a new field of activity in Faryab province. In fact, less attention has been paid to this field of activity compared to other animal resources. This sector has grown to some extent with the investment and funding of the government and other investors. Cooperatives and fish farming companies have been established in different districts such as Garzivan, Kohistan, and Qaisar. It is estimated that several fish farms have been established and are operating in Faryab province, the largest of these fish farms is in Garzivan and the smallest is in Almar.

The production capacity of these fish farms and free resources such as seas and dams is about 1000 tons per year, which shows an increase compared to the previous year, after harvesting is sold to the domestic market in the city of Maimana, Jawzjan, and Balkh provinces. The production level of these fisheries does not meet the needs of the northern province and there is a need to create larger and more breeding and production farms. Fish in Faryab province is of high economic importance because it is one of the main foods of the people of Faryab province because it is a valuable source of protein. Fish meat is very valuable in this sense, from the economic point of view, the fish roll is valuable and essential. According to the information obtained from the farm owners, fish is sold for 10000 to 20000 thousand afghanis daily.

VIII. FISH BREEDING FARMS IN FARYAB PROVINCE

There are four farms in Faryab province, two fish farms in Khaja Ghar village of Garzivan district, one farm in Badghisi village of Shirin Tagab district, and one farm in Kete Qala village of Pashtun Kot district, where there are various types of fish such as trout, fish Fish, milkfish, carp fish, silverfish, etc. are cultivated, including salmon,

which has more economic importance than other types of fish.

IX. IMPORTANCE OF FISH FARMING

Aquaculture is one of the simplest and most economical ways to produce animal protein, because

- We know that despite the existence of sufficient water in some regions of the country, the quality of land and soil is not suitable for agriculture. It is practical to use many of these lands for fish farming.
- The rate of conversion of food to meat in aquatic animals is much higher than in other farmed animals. Farmed aquatic animals are cold-blooded animals whose body temperature depends on the heat of the environment, and unlike birds and mammals, they do not need to spend energy to keep their body temperature constant. In fact, compared to livestock and poultry, aquatic animals can convert more of their food into meat.
- Some farmed aquatic animals can use decayed organic materials, human food surplus, and most importantly, plant single cells and aquatic micro-animals to meet their nutritional needs. The production of single-celled plants (phytoplanktons) and small aquatic animals (zooplankton) is easily done by adding animal manure or organic fertilizer to the water.
- Many of the food sources that currently cannot be consumed by aquatic animals of a region due to reasons, can be used for the production of some farmed aquatic animals. For example, the phytoplankton of the tidal areas of the southern seas can be used to grow suitable types of cultured oysters.
- In many cases in aquaculture, water can be used in transit, without causing a significant drop in its amount. For example, for the breeding of cold-water fish such as salmon, water is used in transit, and after passing through breeding channels, it can be used for agriculture. It is obvious that such water is more suitable for agriculture, considering the nutrients that are added to it through fish waste, or its excess nutrients, although it may be unsuitable for human or industrial use. It needs to be refined.
- The amount of exploitation of aquaculture per unit area is usually higher than that of agricultural products. According to proper management, 3 to 8 tons can be harvested in each hectare of a warm water pond. For cold blue fish, this amount may be 10 to 15 kilograms per square meter.
- Aquatic protein is more valuable, useful, and digestible compared to other animal proteins.
- There are many water resources that have remained unused and they can be used for the production of fish or other aquatic life, without significant quantitative or qualitative changes in them. At the level of the country, especially in the northern provinces, there are many water catchments that are not used for agriculture.

X. BENEFITS OF FISH FARMING

Despite the current growth of the world population, the production of animal protein is very important. Aquaculture is known for many reasons as the most common and effective way to produce protein in the future. By comparing the world's important breeding animals such as chicken, pig, fish, and cattle, the importance of fish breeding is clarified according to the following points.

Spending less energy, fish and other aquatic animals are among cold-blooded animals and do not spend any energy to regulate and keep their body temperature constant, and compared to other animals, they have a greater talent for growth (except for some species). It is close to the specific weight of water, so it does not need much energy to float, and the energy obtained through food is used for growth.

XI. OBJECTIVES OF FISH BREEDING

- 1- Production and supply of a part of the protein needs
- 2- Rebuilding and increasing valuable marine and river aquatic resources
- 3- Introducing and transferring suitable species, bringing suitable breeding species from other countries, or transferring existing species from one place to another place for breeding.
- 4- Production of fish for sport fishing (fishing with hooks)
- 5- Bait production for commercial fishing
- 6- Production of fish and other aquatic animals for keeping in the water sometimes (aquarium)
- 7- Getting the organic substances in the sewage water after their treatment
- 8- Production of pharmaceuticals
- 9- Production of decorative materials
- 10- Production of live food for valuable fish farming

XII. CONVERSION RATE AND ECONOMIC EFFICIENCY OF FISH FARMING

The food conversion ratio of all kinds of farmed fish is on average 1 to 3, chicken is 3-6, pig is 5 to 12 and cow is 12 to 45. It is possible to use all the water products in Tawam cultivation, which will increase the production per unit area.

XIII. THE NEED FOR FISH FARMING IN FARYAB PROVINCE

With the increase in population, the demand for aquatic products, especially fish meat, is increasing. Currently, fish meat is promoted in many fish shops in Faryab province, and fish meat has a good market, especially during the days of Eid al-Fitr in Faryab

province, in this sense, every day, a large amount of raw fish comes from the provinces of Afghanistan, especially from Kunar. Helmand, Kandahar enters the city of Maimana, which proves that there is a good domestic market for fish meat in this province. Still, due to the high demand for fish meat, the illegal and cruel hunting of local fish continues in the whole country and the provinces, which is considered a great danger and a work to destroy the native generations of local fish of the country and provinces. Also, due to the increase in heart diseases and the need for easily digestible proteins for children and pregnant mothers, the general public does not have the power to buy imported fish meat and they face a serious problem to meet their need for white meat. Using the rich waters of Faryab province is a good opportunity to find and develop fish farming jobs in this province, and this field can create jobs for a large number of our unemployed compatriots in Faryab province.

If the fish farming sector is activated, the level of fish meat production and the production of fish chicks will increase, which will increase the economy of the fish farmers and their families, and on the other hand, safe and quality food will be provided for the local people, and there will be halal and legal employment and profession for the fish farmers and their families. And the local people, including mobile workers who were previously busy in the poppy fields, cleaners, local shopkeepers, and traders are provided. Therefore, the above-mentioned stakeholders voluntarily quit poppy cultivation and turn to a legal and legitimate profession.

XIV. FINDING OR OUTCOMES

Fish production as an economic investment is a new field of activity in Faryab province. In fact, less attention has been paid to this field of activity compared to other animal resources. This sector has grown to some extent with the investment and financing of the government and other investors. Cooperatives and fish farming companies have been established in different districts such as Garzivan, Kohistan, and Qaisar. It is estimated that several fish farms have been established and are operating in Faryab province, the largest of these fish farms is in Garzivan and the smallest is in Elmar.

Our findings in this research on fish: As the population increases, the demand for aquatic products, especially fish meat, is increasing. Currently, fish meat is promoted in many fish shops in Faryab province, and fish meat has a good market, especially during the days of Eid al-Fitr in Faryab province, in this sense, every day, a large amount of raw fish comes from the provinces of Afghanistan, especially from Kunar. Helmand, Kandahar enters the city of Maymana, which proves that there is a good domestic market for fish meat in this province.

Despite the current growth of the world's population, the production of more and more animal protein is of great importance. Aquaculture is known for many reasons as the most common and effective way to

produce protein in the world. The importance of fish farming is clarified by comparing the important farmed animals of the world such as chickens, pigs, fish, and cows according to the following points.

XV. DISPUTE OR DISCUSSION

The findings of this research about fish are reported to be somewhat similar to those of Amiri (2018), but he did not say anything about the economic importance of fish. Fish and broiler production has increased and has increased the economy of fish farmers and their families, and on the other hand, safe and quality food has been provided for the local people, and there is legal and halal employment and profession for the fish farmers, their families, and the local people, including mobile workers who previously They were busy in the poppy fields.

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XVI. CONCLUSION OR RESULT

From the research that I have done in this department, I came to the conclusion that Faryab province is one of the provinces of Afghanistan that has abundant natural resources, and 85 percent of its people are engaged in agriculture and livestock. Faryab province is one of the first-class provinces located in the north-northwest of Afghanistan. The area of this province reaches 22,886 square kilometers, and according to the publication of the magazine in 2011, it was reported that 36 percent of the people of this province still live below the poverty line. This province has a suitable climate for fish farming, and if the work is done on top of that, the people of this province can get a lot of work in this direction, which can increase the economy of this province and the people.

In this province, four fish farming farms are actively producing fish and two other farms are under

construction and will start breeding fish in the near future. In this province, fish are found in abundance in natural waters, and people use these fish for their food sources, such as Qaisar, Garzivan, Seri Hoz, etc. A fish farming project to develop, promote and raise the level of fish production in this province named (Development of the chain of livestock values) provides assistance to farmers for fish education and breeding.

SUGGESTIONS

- ✓ Creating a suitable market for selling fish in Faryab province
- ✓ Encouraging people to breed fish in Faryab province and increasing the income from fish farming
- ✓ Considering management in the way of fish farming in Faryab province
- ✓ The attention of the government in the field of fish farming in the province
- ✓ Management of water resources because fish live in water
- ✓ Training more professionals in the fish farming sector
- ✓ Provision of financial resources for fish farmers in Faryab province

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