

Discussion on the Present Situation and Optimization Strategy of Aquaculture Development in China

Lixue Tao

Singapore Asia-Pacific Scientific Research Center

Abstract: China's aquaculture industry has a long history of development and exquisite breeding technology. It is the earliest country in the world engaged in aquaculture, and it is also the only country in the world where the total yield of aquaculture exceeds the fishing capacity. And at present, China's aquaculture industry is still in rapid development. China's aquaculture industry has made great contributions to the world's aquatic products, but also faces the challenges of water environment pollution, aquaculture epidemic, food safety and so on. How to make the sustainable development of aquaculture industry in China is a common concern of the government, aquaculture practitioners and nationals.

Keywords: Aquaculture Industry; Development Status; Optimizing Strategy

In recent years, under the promotion of economic development, the people's requirements for the quality of life have been improved, thus effectively promoting the rapid development and progress of industries. The aquaculture industry in China is related to the two important problems of agricultural economy and people's livelihood. With the development scale of aquaculture industry in China, some problems about aquaculture are becoming more prominent. Based on the present situation of aquaculture development in China, this paper analyzes the existing problems of aquaculture development, and puts forward some suggestions and optimization strategies according to these problems, which lays a foundation for the sustainable and healthy development of aquaculture in China.

1. Development of Aquaculture in China

Aquatic products are loved by people for their high protein and rich unsaturated fatty acids, which are a good source of protein in people's daily life and an important source of meat quality. The development of aquaculture in China has a long history. With the support of national policies, the aquaculture industry in China takes the market demand as the guide to promote economic development as the background. With the rapid development of aquaculture, the overall development of China's fisheries has entered a golden stage and achieved unprecedented achievements.

Nowadays, as an important fishing country in the world, China has completed the transformation from fishing to aquaculture. Aquaculture is an important core part of fishery, which plays a role in promoting the rapid development of agricultural economy, the quality of edible aquatic products and the development of social economy. With the large-scale development of aquaculture industry in China, some problems arising from the development are highlighted. At present, experts in fields have realized that the related problems need to be solved urgently, such as environmental protection, food safety, water resources and genetic resources. At present, China has invested a great deal of manpower, scientific research force and construction of real industry to solve the problems faced together, which will contribute to the healthy and sustainable development of China's aquaculture.

2. Research on Problems in the Development of Aquaculture in China

2.1 Pollution of ecological environment in aquaculture waters

If aquatic animals and plants want to live and develop for a long time, they must have a good ecological environment in aquaculture waters. At the same time, a good ecological environment in aquaculture waters is also a prerequisite for ensuring the sustainable development of aquaculture. In recent years, with the development of people's social life and the orderly development of industrialization, many natural resources water bodies have been polluted to a great extent, such as ordinary people's sewage discharge, industrial wastewater discharge, pesticide and chemical fertilizer discharge and so on. This has brought some obstacles to the sustainable development of the aquaculture.

2.2 Pollution of aquaculture environment

China's aquaculture industry is facing large-scale, high-density and intensive development. On the basis of this development model, a production model of high investment and over-debt in aquaculture is formed. According to the data of relevant departments, when the maximum capacity of aquaculture water body is less than the aquaculture density, the purification capacity of water body itself cannot keep up with the pollution rate caused by aquaculture, and too many metabolites, fertilizers and food that cannot be purified will be formed. Because the intensive aquaculture has brought serious pollution to the surrounding water environment, the ecological function of the water body has been seriously damaged.

2.3 The epidemic is increasing

Nowadays, with the development of market demand, aquaculture in China is becoming more and more large-scale and intensive, aquaculture diseases frequently occur, and aquatic organisms such as shrimp and scallop are seriously losses. The aquaculture industry shows an increasing trend of epidemic disease, and the causes of the disease is quite unknown, which leads to a large-scale death of aquatic organisms, especially some rare aquatic diseases such as turtle, prawn, eel, river crab and so on, which have brought great economic impact to the aquaculture. The researchers point out that the existence of this problem has a very negative impact on China's reasonable food safety.. On the other hand, based on related problems, the risk coefficient of aquaculture work in China has increased significantly, which is not conducive to the reasonable cultivation of aquaculture farmers' confidence, and then leads to the reduction of aquaculture market scale. It has a certain impact on the satisfaction of supply and demand of aquatic product in China.

2.4 Hidden dangers of food safety

With the development of aquaculture and the frequent occurrence of epidemics, some drugs have to be used to prevent or treat aquatic products in the process of aquaculture, which leads to some hidden dangers in the food safety of some aquatic products. In recent years, with the media exposure of aquatic food safety, most consumers think that eating safe and safe aquatic products has become a major problem in daily diet. Due to the pollution of water environment, the behavior of using necessary antibiotics, chemical drugs and hormone drugs in aquaculture has become natural, and often accompanied by unscientific and non-standard use of drugs, which leads to the problem of drug residues in aquatic products.

2.5 Single aquatic product

At present, although China has become a large aquaculture country, still mainly freshwater fish culture, mainly concentrated in silver carp, herring, bighead carp, grass carp. These four types of aquaculture, breeding varieties are too single. With the rapid development of the world trade and economy, China's aquaculture industry should not only meet the demand of the domestic market, but also meet the demand of the foreign market. The researchers said that the simplification of aquaculture varieties is often not conducive to the improvement of the comprehensive quality of aquaculture in China, thus adversely affecting and limiting the sound development and rational distribution of

aquaculture in China.

3. The Optimizing Strategy for the Sustainable Development of Aquaculture in China

3.1 Rehabilitation, purification and prevention of aquaculture environment

In view of the restoration and purification of aquaculture environment, we can consider many aspects, and improve and prevent the existing aquaculture environment with the joint efforts of all aspects. First of all, science and biotechnology can be used to try to purify the damaged water and achieve the effect of purifying the polluted waters body of aquaculture. In addition, relevant scientific research institutions should increase investment in how to protect and purify natural resources, and strive to develop new technologies or new products to quickly repair polluted natural water resources and ecological zones. Secondly, at the prevention level, we can rely on the government's propaganda power to raise the public's awareness of the protecting water resources, cherish natural resources, strengthen the protection measures for uncontaminated rivers, lakes and seas, and reduce the harm caused by human activities to natural waters. At the same time, the relevant functional departments should strengthen the monitoring of environmental protection, build a complete supervision system, reasonably control the density of aquaculture, and lay a solid foundation for the long-term and sustainable development of aquaculture in China.

3.2 Upgrading the technical level of aquaculture

In recent years, with the deepening understanding of the safety of aquatic products by the government, enterprises and the public's, relevant scientific research institutions and many aquaculture enterprises have invested in the research and development model of high efficiency, energy saving and emission reduction, and achieved some results. According to the development of aquaculture industry in China, scale and intensification are the inevitable trend of aquaculture development at present. Therefore, it is necessary to use new equipment for aquaculture and production, and make efficient use of water, electricity, energy and natural resources, etc.. Fine and efficient energy conservation and emission reduction should be adopted instead plundering natural resources in a primitive and rough way, and new high-tech aquaculture equipment should be used to purify and decompose the waste discharged from aquaculture to the maximum extent, reduce pollution of water resources, and strive to achieve the effect of waste reuse.

3.3 Improving the living environment of aquatic organisms and reducing the occurrence of epidemic diseases

With the improvement of people's living quality, people pay more and more attention to food safety. From the physiological point of view of aquatic products, the cause of disease is that aquatic animals and plants are in a polluted environment for a long time, which is easy to breed pathogens and cause aquatic animals and plants to fall ill. Therefore, improving the aquatic environment of aquatic animals and plants is the fundamental way to solve the drug residue exceeding the standard in essence. In order to improve the water environment thoroughly, it is necessary to cooperate with each other in the aspects of aquaculture environment, feed production and so on. The relevant enterprises try to produce degradable or pollution-free organic feed, and reduce the use of antibiotics. At the same time, the government has stepped up measures to punish aquaculture enterprises for abusing fuel agents and hormone drugs, standardize aquaculture production, and ensure the safety of aquatic food.

3.4 Vigorously cultivate characteristic aquaculture products

With the development of aquaculture trade demand at home and abroad, we should look for or develop some characteristic varieties for aquaculture. We can try a small amount, fine breeding, high return way, not only to meet the domestic public consumption demand, but also to meet the international trade aquaculture demand. At the same time,

researchers engaged in aquatic work need to cultivate more new varieties with characteristics, make more efforts in genetics and breeding, cultivate new breeding with mass production and strong disease resistance, and quickly meet the needs of diversification.

Conclusion:

In this paper, the development status of aquaculture in China is explained in detail, and the corresponding optimization strategies are given in view of the outstanding problems existing in aquaculture, which lays the foundation for ensuring a healthy, green and sustainable development environment of aquaculture in China.

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