

Towards Economic Management of Fisheries in China

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340,000 traditional fishing crafts using sails.

Of the total aquatic output, however, 76% has come from motor fishing vessels. The total output of aquatic products amounted to 4.3 million t in 1979, nearly twice the historically highest output registered before establishment of the People's Republic (the 1936 record being 1.5 million t, Taiwan included), or 8.5 times more than in 1949, with an average yearly increase of 128,000 t, a growth rate of 7.8% per annum.

Thirteen large fishing ports have been established and 61 medium- and small-sized fishing harbors. The overall capacity for fish cold-storage has reached 160,000 t. The shipbuilding industry can turn out 170 big fishing vessels annually.

Aquaculture in both saltwater and freshwater has made great headway.

Aquaculture team at work at Zhejiang Province. Photo by Qian Xinqun.



China is endowed with excellent natural fishery resources. To the east and south lie the Bohai Sea, Yellow Sea, East China Sea and South China Sea, bordering a coastline of more than 18,000 km. The area of continental shelf within 200 m depths amounts to 430,000 square nautical miles, and includes extensive potential fishing grounds. Along the coastline, the area of foreshore suitable for aquaculture totals 493,000 ha. Inland waters, including rivers, streams, lakes, water reservoirs and ponds, occupy about 16 million ha, of which 5 million ha are suitable for fish farming.

The geography of China is characterized by high altitudes in the west and low altitudes in the east, so that all the rivers and streams flow eastward, bringing nutrient-rich waters into the adjacent seas.

The Chinese people have centuries of experience in fishing and aquatic farming. The rich endowment of natural resources combined with a wealth of practical experience offers great possibilities for fisheries development.

Progress

Productivity of Chinese fisheries began to accelerate after the establishment of the People's Republic. Formerly, fisheries were predominantly traditional in nature, using primitive equipment. Fisheries were localized in coastal waters and only during specific seasons of the year. The end of the feudal system in China saw great benefits to fishermen. One is in the form of large credit and relief schemes by the State to enable them to repair and renew ships, nets and other means of production.

Eventually, the fishermen organized mutual assistance groups, cooperatives and communes to attain prosperity together with equity.

The collective economy has flourished and consolidated. At present, there are more than 300 fishery communes, including 4,000 production brigades and 17,000 production teams. The total number of motorized fishing crafts is 52,000, of which 1,200 are large vessels with a total power of 3.1 million HP. In addition, there are

At present, the area of freshwater fish farms has increased to 3.2 million ha, nearly ten times that in the early days of the People's Republic. Saltwater fish farms cover some 57,000 ha. Marine algae (kelp) farming in particular has expanded in the Bohai Sea, Yellow Sea and East China Sea areas: the annual output of kelp is now 280,000 t.

There are 10 scientific research institutes of aquatic life directly under the sponsorship of the National Bureau of Aquatic Products, while in the provinces over 20 research units and institutions of secondary or higher education in aquatic sciences have been set up. There is a strong core of managerial and technical expertise capable of solving key problems in production.

Problems

For all the progress China has made, there are also certain problems caused by historical conditions on the one hand, and by various shortcomings and mistakes on the other.

First, too much emphasis was placed on high output of aquatic products. Great efforts were devoted to building vessels and improving gear with a view to strengthening fishing capacity. This resulted in overfishing in coastal waters, depleting their fish resources.

Second, in an effort to increase grain production, shallow parts of lakes were turned into farmland by enclosing them with dykes and draining away the water, thus considerably diminishing the area of inland waters for fish rearing. Various irrigation projects, with the construction of

dams and lockgates, as well as pollution of waterways, also threatened the viability of some fisheries.

Third, the available waters are far from fully utilized for fisheries. At present, only about half of the inland and coastal waters suitable for fish culture are being used for this purpose.

Fourth, the installations for fish preservation and processing have not kept pace with growth in production, thus affecting the quality of products.

Forums

These problems were recognized at the 3rd Plenary Session of the 11th Central Committee of the Chinese Communist Party where the following principles for future fisheries development were adopted: 1. Protect the fishery resources; 2. Encourage aquaculture; 3. Develop offshore fisheries; 4. Apply modern techniques to fisheries; 5. Enhance scientific management; 6. Improve the quality of fishery products and 7. Improve the supply of fish to markets.

Modernization of China's fisheries posed a series of economic problems. Under the auspices of the Chinese Academy of Social Sciences and the National Bureau of Aquatic Products, a symposium on the planning of fishery economics research for the whole country was held at the end of 1978 at Zhou-shan in Zhejiang Province, an offshore island famous for its fisheries. There, the Society of Fishery Economics was founded. Since then, a number of central and local research units of fishery economics have been established.

At the 1978 symposium, fisheries problems since the founding of the new China were reviewed. The most important lesson drawn was that the principles of fisheries economics should be strictly studied and observed. In Chinese fisheries, just as in any other economic sphere, it is necessary to abide by the basic economic law of socialism and the law of balanced, proportionate development of the national economy, to organize aquatic production. China must apply to fisheries such laws as the law of value under socialism and the law of distribution of income according to work

performed, to speed up fisheries development.

Finally, in discussing the socialist law of distribution, it was concluded that the main fault had been an impatient desire for equity which had led to equalitarianism in allocation, and this had seriously frustrated the fishermen's initiative. It was therefore proposed to restore the "three fixed and two rewards" system, which had once proved to be effective in promoting production (the "three fixed" means fixed targets for *output*, *costs* and *work points*; "two rewards" means rewards for *output in excess of the target* and for *savings on costs*).

At the symposium, it was unanimously acknowledged that, since most aquatic products are sold in the market, the law of value plays a decisive role in their production and transactions.

Recently, the first national forum on fishery economic theory was held at Wendon, Shangdong Province, coinciding with the Third Plenary Session of the 5th National Assembly which brought great political and economic reforms.

The new circumstances and problems of China's fishery economics were discussed under six topics: 1. The proper organizational system of fisheries, 2. The economic structure of fisheries, 3. Ownership and responsibility of production, 4. The joint operation of fisheries, aquatic industry and commerce, 5. Problems concerning the modernization of fisheries, and 6. Basic economic theories and analytical methods.

All those who attended the forum were convinced of the importance of fisheries in the national economy, and that emphasis should be put on both capture and culture fisheries, with breeding as the main task.

Recommendations

Fisheries should continue to be a key link in the development of those regions traditionally specialized in fisheries. At the same time, it is necessary to diversify the economy to assure all-round development of other economic activities.

Economic efficiency should always

be kept in mind. It is important, for example, that with the prevalence of socialist public ownership, various economic elements and forms of economic activities should be allowed to exist and brought into full play. State-owned enterprises should take the lead by demonstration. The autonomy of fishing enterprises should be expanded. The independence of collective fishery units should also be respected. They must have the right to select the proper types of production and distribution and the right to dispose of their products. It has been proved that wherever the system of production is directly linked to the interests of producers, and output quotas are fixed for each production team, working group or fishing household, good performances are the result. Those measures, combined with a set of contracts and incentives, have spurred the fishermen's productivity and rapidly changed the outlook of fisheries in the regions and units concerned.

It is imperative to develop more forms of fish farming, to promote integration of enterprises, to maintain their competition in the market and to animate the commerce of aquatic products. Measures should be taken to integrate gradually the fisheries, industry and commerce, and promote direct contact between producers and buyers, to reduce the intermediate sectors and bring fresh fish to the consumer's table.

The discussions and research work of Chinese fishery economic theorists have begun to attract attention in official quarters. Policymakers have adopted a series of measures to ease some fisheries restrictions to increase fish production.

However, there is still a considerable gap between the present level of theoretical competence and the requirements of modern fisheries in China. It is suggested, therefore, that as well as promoting development of China's economic expertise, it is necessary to absorb the scientific achievements of foreign economists, and to relate them to the situation in China. ○