

PROSPECTS FOR THE DEVELOPMENT OF FISH FARMING IN UZBEKISTAN

Rakhmatova S. M.

Federal State Budgetary Educational Institution Higher Education
Astrakhan State Technical University in the Tashkent Region
of the Republic of Uzbekistan

Abstract

There are 73 species of fish in the water bodies of Uzbekistan, of which only 35 species are considered commercial (48%) and the remaining 38 species (52%) are considered less valuable or weedy. Of the 35 species of commercial fish, about 18-20 species are caught for commercial purposes, others have smaller populations, and some are listed in the Red Book.

Keywords: aquaculture, fish farming, commercial fish, commercial.

Introduction

The largest aquaculture regions are the Asia-Pacific region, South Asia and Europe, accounting for more than 70% of global aquaculture production.

At the beginning of January 2024, there are 5,775 fish farms in Uzbekistan, of which 5,600 are in artificial reservoirs (63 thousand hectares) and 175 are in natural reservoirs (537 thousand hectares), the Uzbekbaliksanoat Association told Sputnik Uzbekistan [3].

In accordance with the Decree of the President, from January 1, 2024, within the framework of the program "Every family entrepreneur", the population and entrepreneurs can receive unsecured loans of up to 50 million soums for the implementation of fish farming projects.

The Association stressed that over the past few years, the republic has adopted a number of important decisions and resolutions regulating the further development of the fishing industry, and also provides comprehensive support to its representatives. In particular, they provide benefits, introduce innovative and intensive technologies from countries such as Russia, China, Vietnam, Iran, Hungary, Turkey and others.

Particular attention is paid to scientific research and the development of international cooperation. In particular, the Research Institute of Fisheries and Namangan State University have opened laboratories "Ichthyopathology" for the analysis of fish diseases and the biochemical composition of water. Modern laboratory equipment was imported from Hungary and the Netherlands [1].

The fishing industry is potentially important in the development of agriculture in Uzbekistan. Although, in recent years, the share of this industry has been less than 0.1% in GDP. Nevertheless, despite the availability of significant water resources, the fish catch has significantly decreased from 27,000 tons in 1991 to 7,200 tons in 2006 (Umarov, 2003; Kamilov, 2003; Karimov et al., 2006; Shohimardonov, 2007).

As a result, per capita fish consumption has dropped to less than half a kilogram, compared to 5-6 kg per year during the Soviet period (Karimov et al., 2005). At the same time, the level of fish consumption recommended by medicine for the conditions of Uzbekistan is 10-12 kg per capita.

Currently, since 2020, a branch of the Astrakhan State Technical University, the Department of Aquatic Biotechnology and Aquaculture, has been opened in the country, where personnel for the



fish sector and specialists for research organizations are trained. The teaching staff consists of teachers from the head Astrakhan University, and some of the applicants are from Uzbekistan. In 2023, the first certified bachelor's students graduated in the direction of "Aquatic Bioresources and Aquaculture", the profile "Aquaculture" and "Food of Animal Origin", the profile "Food of Animal Origin and Aquatic Bioresources".

There are 73 species of fish in the water bodies of Uzbekistan, of which only 35 species are considered commercial (48%) and the remaining 38 species (52%) are considered less valuable or weedy. Of the 35 species of commercial fish, about 18-20 species are caught for commercial purposes, others have smaller populations, and some are listed in the Red Book. The main fish species are caught in inland waters, as shown in Table 1.

Table 1. List of commercial fish species in Uzbekistan

№	Common name	Scientific name
1	Carp	<i>Cyprinus carpio</i>
2	Zander	<i>Stizostedion lucioperca</i>
3	Oriental Bream	<i>Abramis brama</i>
4	Catfish	<i>Silurus glanis</i>
5	Crucian carp	<i>Carassius auratus</i>
6	Grass carp	<i>Ctenopharyngodon idella</i>
7	Silver carp	<i>Hypophthalmichthys molitrix</i>
8	Snakehead	<i>Channa argus</i>

Today, Golden Fish Group is the leading producer of red fish, sturgeon, and the only producer of red and black caviar in Uzbekistan.

In the beginning, fishing and fish farming was just a favorite pastime, which later grew into a full-fledged business, namely the cultivation of valuable fish species - sturgeon and trout, which were not previously available in Uzbekistan.

The correct territorial division of reproduced and caught fish played an important role in the development of the company. For example, local varieties of fish are caught on the water surface of the Tuyabuguz reservoir (Tashmore) and in the Golden Fish recreation area, including trout, silver carp, carp, etc. The cage method is the most effective and low-cost way of growing fish, which meets all modern requirements.

The annual volume of farmed marketable fish (salmon, trout, sturgeon) is 1300 tons, the annual productivity of fish fillets is 50 tons, smoked fish is 30 tons, black caviar is 12 tons. The planned export volume is 5 million US dollars [2].

In autumn, the "fertile" water drains from the pond and all the fish must be caught and sold in a week. The pond remains empty from autumn to spring. After that, the pond is again filled with new infertile water. In the planned economy, fish farmers had the goal of growing fish, but were not interested in the commercial side of production.

In the new economic conditions, farmers noted that with such expenses, the two-year cycle of fish farming is too slow. There is a need to adapt more efficient technology. Some large farms use a higher density (up to 3,000-4,000 fish/ha). Since the fish in this case is smaller, these farms grow fish for the third year, getting fish weighing 1.5-3 kg. This inefficient practice is used because there is no real competition between fish farms and the land and water tax is low.



References

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