



## Fisheries scientific research institute



# CURRENT STATUS AND DEVELOPMENT OF FISHERIES AND AQUACULTURE IN UZBEKISTAN

The Second Aquatic Animal Health workshop for Central Asia and Transcaucasian countries and Central Asia and Transcaucasian Aquatic Animal Health Network

> TASHKENT (UZBEKISTAN) 24-26<sup>th</sup> April 2024



Fisheries and aquaculture are an important sector of food production in the Republic of Uzbekistan. Fisheries and aquaculture ensure food security by providing the country's population with high-quality protein for nutritious nutrition. These industries can create new jobs in rural areas, thereby improving people's well-being.

In order to further develop the fisheries and aqaculture industry in the republic, the state of the Republic of Uzbekistan annually adopts resolutions and decrees on the development of the country's fishery sector, paying special attention to ensuring food security and improving welfare in rural areas with targeted investments in which fish farming will play a significant role.



## PROGRAM FOR THE DEVELOPMENT OF LIVESTOCK SECTOR AND ITS INDUSTRIES IN THE REPUBLIC OF UZBEKISTAN FOR 2022 - 2026

PROGRAM OBJECTIVE:

Uninterrupted supply of food products to the population of the republic and expansion of production capabilities of livestock sectors, including aquaculture

Water and land resources will be used efficiently

Intensive water ponds and new fish species will increase

Production of high-protein compound feeds will increase



Fish breeding will be updated and fish production will increase

Processing and export of fish products will increase



2030

#### **EXPECTED RESULTS**



from 4 kg per year per capita in 2020 to 12 kg in 2026 per year per capita

New fish species

**Processing** 

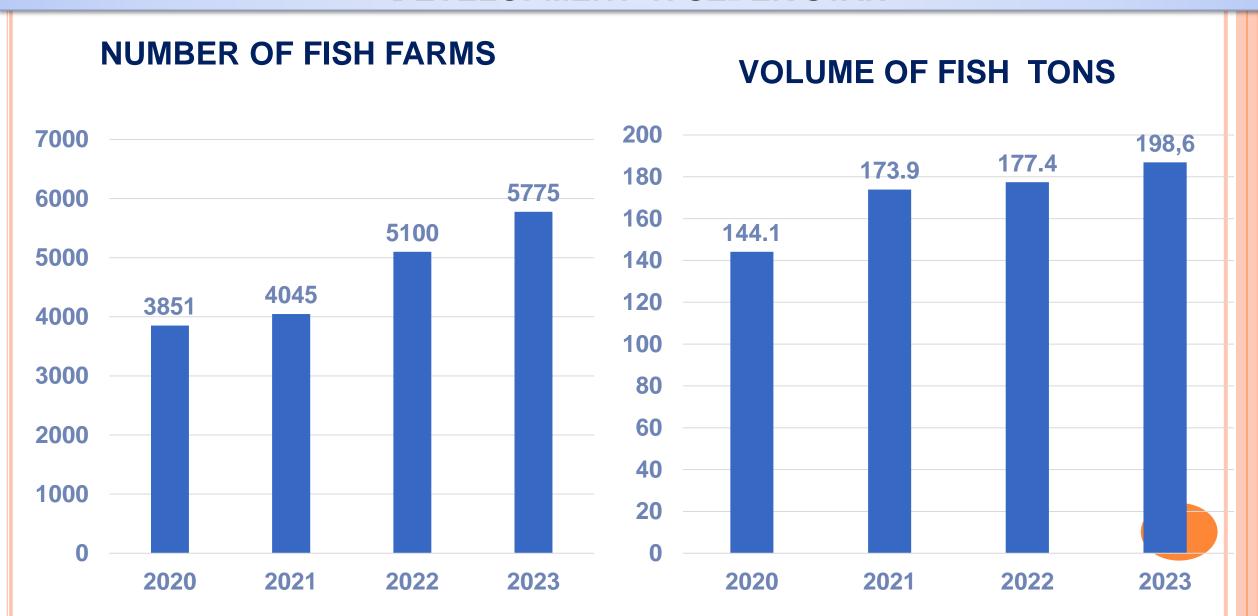
**Export** 

2020

**Intensive** 

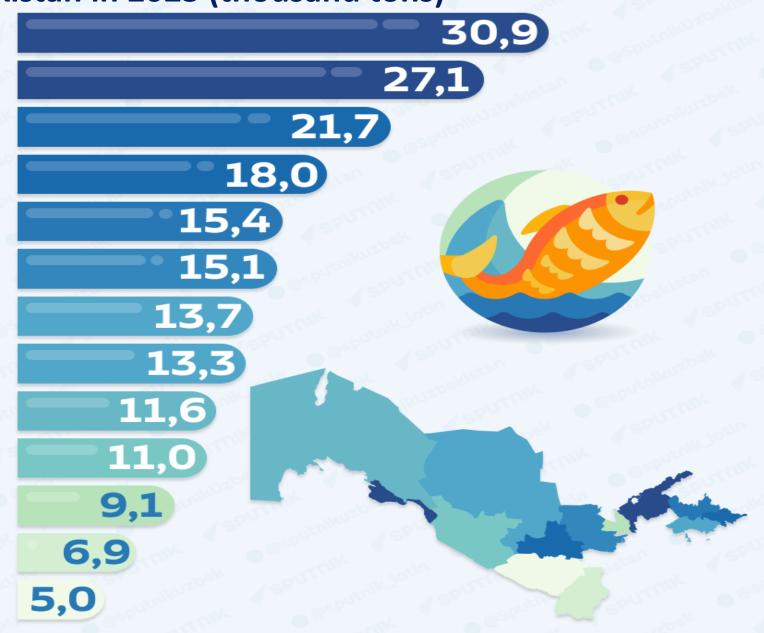
### MAIN INDICATORS OF AQUACULTURE

### **DEVELOPMENT IN UZBEKISTAN**



Fish products obtained in the regions of Uzbekistan in 2023 (thousand tons)

Khorezm region Tashkent region Andizhan region Samarkand region Namangan region Dzhizak region Navoi region Fergana region Rep. Karakalpakistan **Bukhara** region Syrdarya region Surkhandarya Kashkadarya region



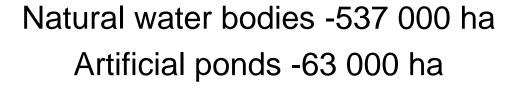
### WE ARE GETTING FISH BY:



In natural reservoirs



**Cage devices** 



### TYPES OF FISH FOR INDUSTRIAL CULTIVATION



In artificial water ponds



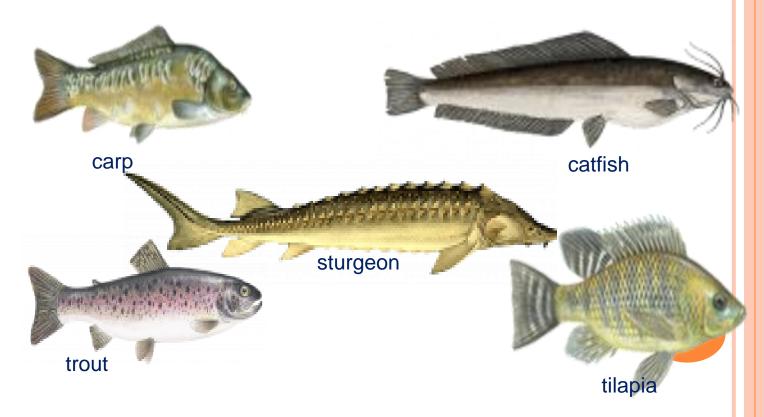
In households



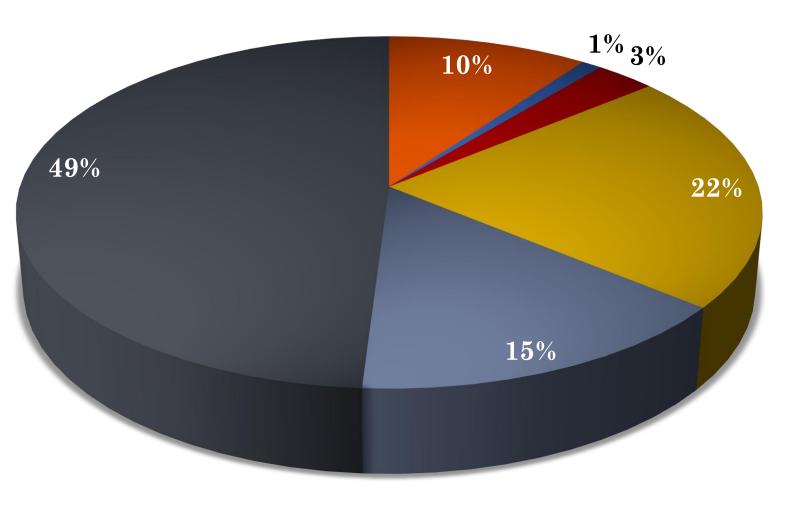
By RAS and intensive



**Semi intensive** 

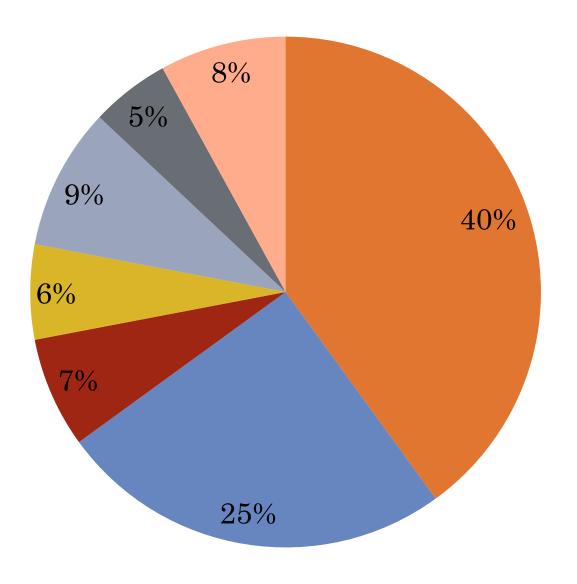


### Methods of fish culture



- Intensive aquaculture
- Recycling aquaculture system (RAS), Home based aquaculture
- In cages systems
- Wild fish capture
- Semi-intensive methods (pond polyculture)
- Traditional (extensive) aquaculture

### FISH SPICES (%)



- Silver carp
- Common carp
- Grass carp, Bighead carp
- Trout, sturgeon
- Crusian carp, Roach
- African catfish,

### CHALLENGES IN AQUACULTURE DEVELOPMENT IN UZBEKISTAN



Increasing shortage of water resources and decreasing quality

Warming in Central Asia is occurring faster than the global average. Average annual temperatures have increased by 0.5 degrees Celsius over the past three decades and are projected to increase by 2.0 to 5.7 degrees by 2085.

Increasing water mineralization at the lakes. Water becomes too much saline for freshwater fishes

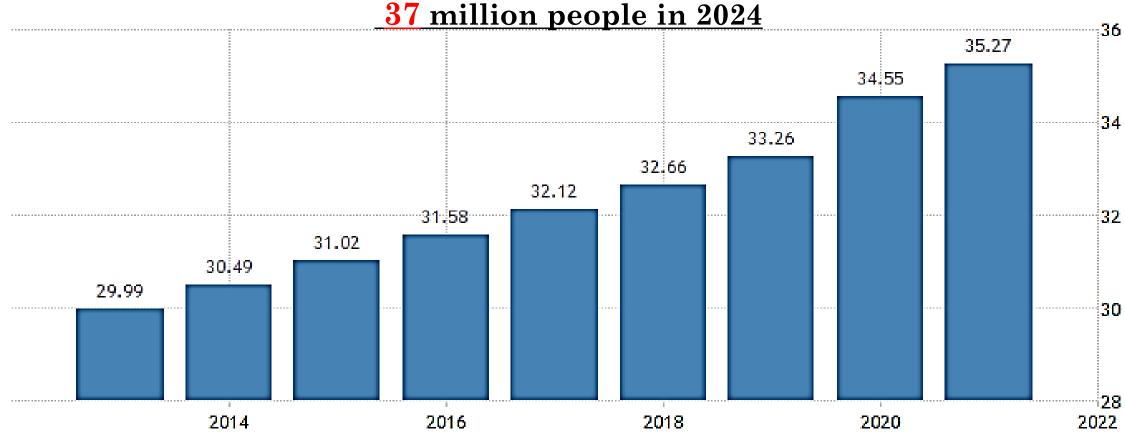


Import dependence on fish feed and fish brooding material

Lack of highly qualified personnel

Insufficient regulation of legal relations in the field of aquaculture

Total population in Uzbekistan was estimated at



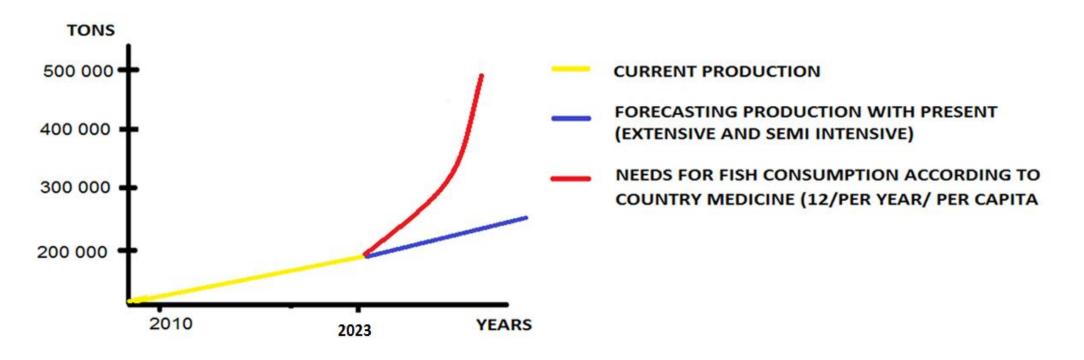
According to forecasts, the birth rate will continue at the same rate until **2030** (900-950 thousand on average) and the population will exceed **41 million** people

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9.4% are under the legal age 30.1% are older than the legal age 60.5% are of working age

**56.5**% of the total population Citizens under **35** years of age

### WHERE WE ARE NOW AND WHERE WE NEED TO BE



Gradual activation of ineffective artificial reservoirs and an increase in fish productivity in Uzbekistan by another 4-5 times.

Increase the number of aquaculture clusters and promote the organization of intensive fish farming in 10 thousand farms.

Promoting the breeding of valuable cold-water fish species (Siberian sturgeon, rainbow trout, river trout, salmon) and increasing production volumes.

Increasing the number of fish processing enterprises and feed production enterprises.

## IN VIEW OF THE FOREGOING, WE NEED TO SOLVE THE FOLLOWING IMPORTANT PROBLEMS IN TERMS OF RELEVANCE

### 1) In waters with high salinity:

- Implementation of international experience in breeding fish species that can reproduce and grow well in brackish waters.
- Development of technology for artificial reproduction of local disappearing endemic fish species.
- Introduction of technology of desalination of waters with high mineralization for fishery.



## 2) Acclimatization new aquaculture species.

Introduce new intensive aquaculture fish as well as crustacean species to fishery industry of Uzbekistan.

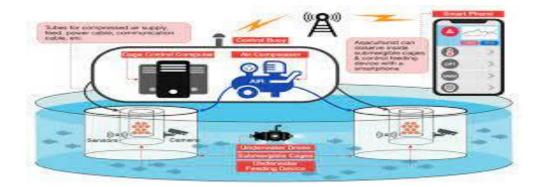
Development and implementation of technology for intensive cultivation of new promising fish (crustacean) species in local conditions.



### 3) Innovative, eco friendly and resource saving technology.

We essentially need to introduced into wide production new innovative, eco friendly and resource saving technology.





### • 4) Feeds for aquaculture.

• Establishing the production of high-quality and balanced feeds based on ingredients available on the <u>local market</u>, as well as the development of recipes for them.



### **5)** Fish processing and certifications.

- - Establishing a certification system and processing of fish (crustacean) according to international standards.
- - Implementation of the technology of production of quality products from products left over from processing.



### 6) Creation of new laboratories and transfer of knowledge.

Learning knowhow, last research achievements and trends - are one of important factors for successful results.



### Thank you for attention