

# FISHERY



# MK - NI 041

## FISH STOCKS CHARACTERISTICS



### Definition

The indicator shows the number of freshwater species living in rivers and lakes in the Republic of Macedonia and the fish species represented in fishponds that are subject to aquicultural production.

At present, the indicator shows the status of:

- catch of two economically significant fish species in fishing waters;
- total catch of other fish species in fishing waters;
- total aquicultural fish production in fishponds.

### Units

Number of fish species, kilograms (tonnes) fish catch.

### Key policy issue

How sustainable is the fish catch in the Republic of Macedonia?

### Key message

The average fish catch in the Republic of Macedonia is 1.370 tons of different fish species. The overall fish catch had periodical trend of reduction and increase, from 2003 to 2006 the catch reduced because individual fishing companies, business entities and concessionaires lost their permits for fishing activities in individual aquatic basins and high number of sports fishing clubs were terminated.

The greatest fish catch was noted in 2000 amounting 1834, and the lowest one was in 2006 and amounted 813 tons. Carp is the leading species in lowland waters with a catch of 220 tons in 2016, and trout in highland waters with a catch of 973 tons in 2016. Trout had the highest share in the total fish catch in 2016 with 75.3%, followed by carp with 17.03%, other fish with 4.41% and catfish had lowest share with 3.25%.

Figure 1. Total fish catch

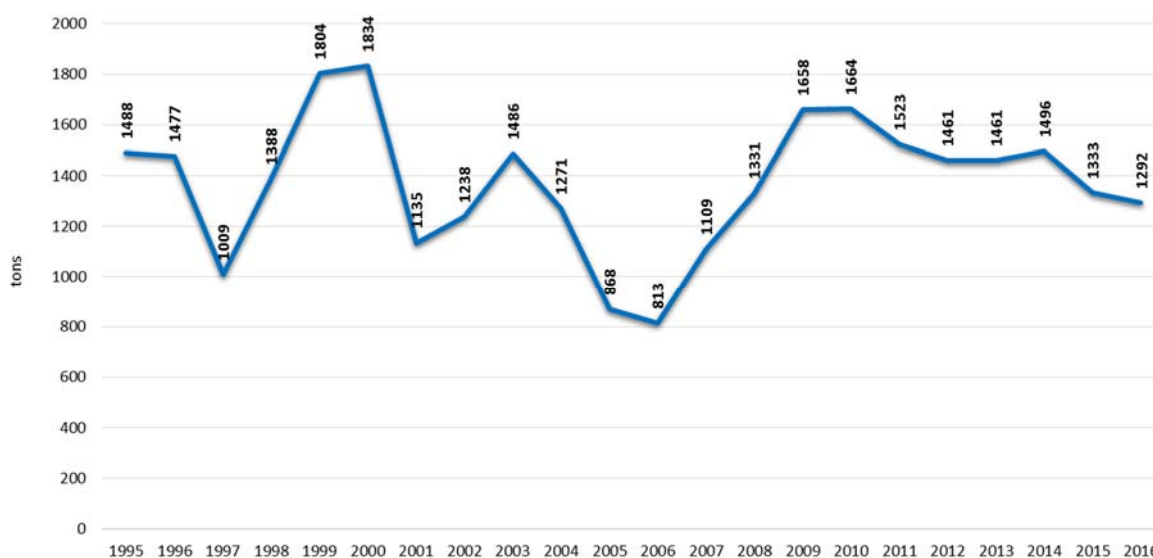


Figure 2. Catch of the main fish species

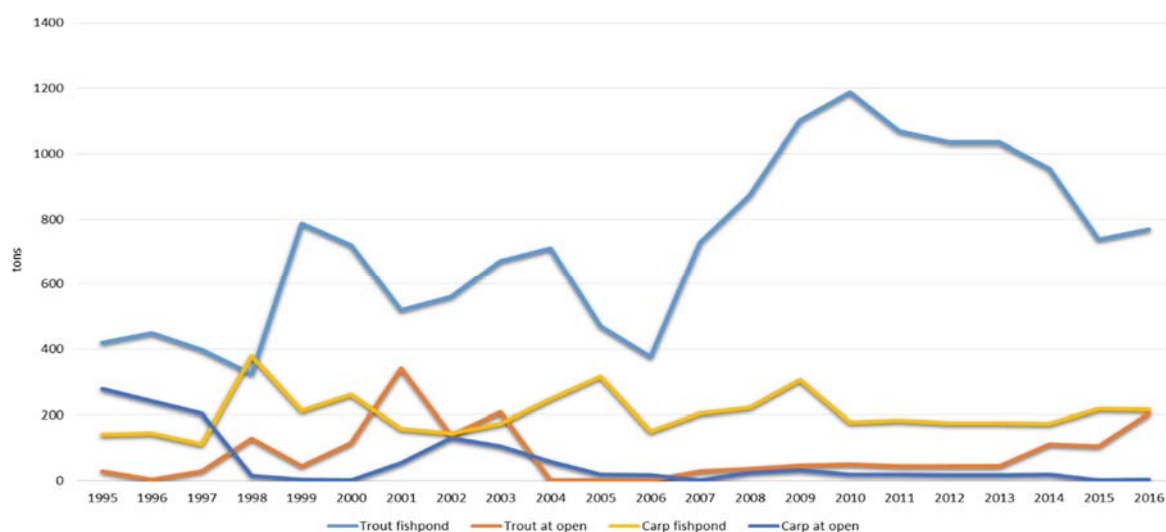
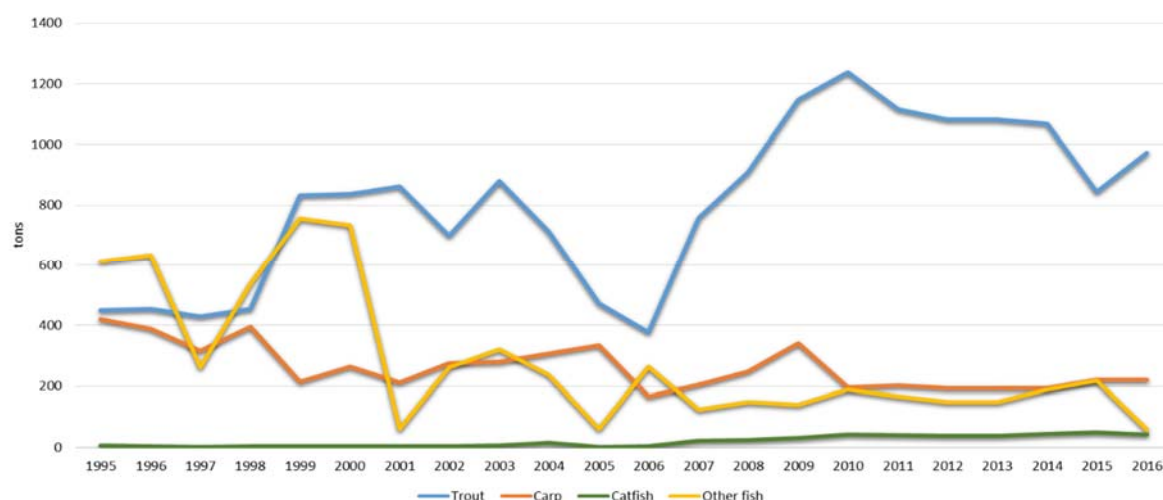


Figure 3. Total fish catch by fish species



Data coverage: [excel](#)

Source: State Statistical Office

## Assessment

During the observed period, with regard to total fish catch (production of commercial fish and fishing by sports fishermen) in the Republic of Macedonia, the average catch is 1.370 tons of different fish species. In the period from 1995 to 2003, the overall fish catch had periodical trend of reduction and increase, from 2003 to 2006 the catch decreased because some fishing companies, business entities and concessionaires lost their licenses for fishing activities in certain water basins, and significant number of sports fishing clubs were terminated.

Trend of increase by 104.6% in the total fish catch was noted in the period 2006 to 2010 compared to 2006, i.e. it increased from 813 to 1664 tons of fish. Then, in the period 2011 to 2016, there was drop in fish catch again compared to 2010 by 22.39%.

Figure 3 shows that the carp is pre dominant fish species in lowland waters with a catch of 220 tons in 2016, while trout is leading in highland waters with a catch of 973 tons in 2016. In the total fish catch in 2016, trout had the highest share with 75.3%, followed by carp with 17.03%, other fish species

with 4.41% and catfish with 3.25% noted lowest share.

Fishing and fish stock exploitation in fishponds and artificial water accumulations in the Republic of Macedonia is under permanent supervision, with constant care for the fish stocks and regular stocking with economically important fish species. In this way, sustainable development and exploitation of fish as an important economic resource is provided, as well as for sports fishing. Exploitation of fish stocks from natural lakes has been coping with permanent problems for a longer period, including over-fishing and uncontrolled fish catch in those aquatic ecosystems. These activities affect particularly the endemic fish species, such as Ohrid trout (*Salmo letnica* Kar.), as well as other endemic species represented by small populations in certain aquatic ecosystems.

## Methodology

### Methodology for the indicator calculation

The source of data on the characteristics of fish stocks in the Republic of Macedonia is the State Statistical Office and their methods are used for data processing.

### Uncertainty

Uncertainty derives from the assumed incomplete data on fish catch in rivers and lakes. The uncertainty increases further because of the limited number of literature data on genetic structure of fish populations in natural aquatic ecosystems.

## Policy relevance of the indicator

### List of relevant policy documents

The Study on the State of Biological Diversity in the Republic of Macedonia and the National Strategy for Biological Diversity Protection with Action Plan establish integrated approach to the protection and sustainable use of biological diversity components including fishery.

Spatial Plan of the Republic of Macedonia.

### Legal grounds

The Law on Fishery and Aquaculture regulates the management, planning, commercial management and aquaculture of fish in fishing waters, fish ponds, semi fish ponds, cages and other fish breeding resources.

## Targets

The overall fish production in the Republic of Macedonia has been envisaged to grow by 2.300 tons by 2020. The main mass in this grow will consist of trout fish (1.435 tons or 62% of the total catch) mostly from fishponds.<sup>1</sup>

## Reporting obligation

- FAO – Fisheries and Aquaculture Department

## General metadata

Code	Title of the indicator	Compliance with CSI/EEA or other indicators		Classification by DPSIR	Type	Linkage with area	Frequency of publication
MKNI 041	Fish stock characteristics	FISH 3	Fish stock characteristics	S	A	Water Biodiversity Tourism	annual

<sup>1</sup>Spatial Plan of the Republic of Macedonia