

# TAPAS workshop on identified bottlenecks in aquaculture governance

## *Polish challenges in the fields of aquaculture development*

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**Olsztyn, March 5, 2019**

## **Introduction**

**Poland is one of the main seafood processing countries in Europe with hundreds of facilities processing raw materials from countries around the world including Norway, Denmark, Sweden and China.**

**Poland participates in marine fisheries in the Baltic Sea, Atlantic and North Sea, as well as producing substantial volumes of trout and carp from freshwater aquaculture.**

**Polish fisheries and aquaculture sector is small compared with other economic sectors, however, it plays an important role in local communities and rural areas.**

**Aquaculture production in Poland has a long history and, in most locations, it is land-based freshwater farming using:**

- traditional earth ponds in a 2-3-year cycle (production of carp) [this production method is limited to a few CEE countries];**
- intensive fish production facilities (where trout production occurs).**

## Production data

Two most valuable species produced from aquaculture in Poland are common carp and rainbow trout.

They had a value of EUR 82,9 million or 82,9% of the total for farmed fish. Other species produced are sturgeons, different types of carps and salmonids.

In 2015, Poland was the largest producer of carp (followed by the Czech Republic and Hungary) and one of the largest producers of trout in the EU (but well behind countries with the largest production: France, Denmark and Italy).

**Table: TOP SPECIES FARMED IN POLAND**  
(value in million EUR and volume in 1000 tonnes; 1 EUR = 4,3 PLN)

SPECIES	2016		2017	
	Value	Volume	Value	Volume
Carp	40,15	17,40	43,11	16,85
Trout	39,42	13,73	39,85	13,81
Other	13,23	4,32	17,08	4,76
<b>Total</b>	<b>92,80</b>	<b>35,45</b>	<b>100,04</b>	<b>35,42</b>

# **Strategic plan – Aquaculture 2020**

## **Objectives**

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- l) The most important and relatively measurable objective of AQUACULTURE 2020 strategy is:**
    - Reaching and maintaining the leading position in the EU in terms of production of fish from inland aquaculture (extensive and intensive).**
  - a) The basic objectives of extensive aquaculture are:**
    - 1. Maintaining the existing production area of ponds and sustainable use thereof.**
    - 2. Increasing the profitability of pond farms.**
    - 3. Strengthening and popularising the pro-environment and pro-social roles of traditional carp aquaculture.**
  - b) The basic objectives of intensive aquaculture are:**
    - 1. Reaching and maintaining the leading position in the EU in terms of production of fish from inland intensive aquaculture.**
    - 2. Increasing the share of fish from Polish intensive aquaculture in the growing domestic fresh fish market to at least 35%.**
    - 3. Doubling the supply from Polish intensive aquaculture to the Polish processing industry.**
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# Strategic plan – Aquaculture 2020

## Extensive aquaculture – indicators and risk analysis

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### Strategic objective 1

#### Maintaining the existing pond production area and using it in a sustainable manner

Indicator	Factors which put the indicator fulfilment at risk
Maintaining 60 000 ha of production area of ponds	<ol style="list-style-type: none"><li>1. Decrease of profitability of pond production</li><li>2. Not taking the needs of carp farms into account in the national water policy</li><li>3. Introducing charges for water</li><li>4. Climate changes conducive to increasing the water deficit</li></ol>
Maintaining the production of marketable carp at the level of at least 17 000 tons	<ol style="list-style-type: none"><li>1. Excessively subjecting pond management to the objectives of nature protection and water management</li><li>2. Administrative ban on selling live carp</li><li>3. Importing live carp, which weakens the domestic sales</li><li>4. Compensations which make some breeders lower the production</li><li>5. Lack of control over the problem of excessive fish loss (diseases and pressure of piscivorous animals)</li></ol>
Increasing the share of additional pond fish species for consumption in extensive production to at least 20% (min. 3 400 tons)	<ol style="list-style-type: none"><li>1. Insufficient demand for additional species</li><li>2. Low profitability of pond farming</li><li>3. Bad managing of excessive loss of fish (diseases and pressure of piscivorous animals)</li></ol>

# Strategic plan – Aquaculture 2020

## Extensive aquaculture – indicators and risk analysis [cont.]

<b>Strategic objective 2</b> <b>Increasing the profitability of carp farms</b>	
<b>Indicator</b>	<b>Factors which put the indicator fulfilment at risk</b>
Minimum average profitability at the level of 10%	<ol style="list-style-type: none"><li>1. Decrease of carp prices</li><li>2. Excessive production costs and tax liabilities</li><li>3. Decrease in demand and excessive import</li><li>4. Increase of the environmental burden</li></ol>
<b>Strategic objective 3</b> <b>Strengthening and popularising pro-environmental and pro-social role of carp aquacult.</b>	
<b>Indicator</b>	<b>Factors which put the indicator fulfilment at risk</b>
<ol style="list-style-type: none"><li>1. Preparing a system to assess the non-production value of ponds, combined with registering spatial information</li><li>2. Including the strategy objectives in the most important strategic documents and legislation which impact the development of the fishing industry</li></ol>	<ol style="list-style-type: none"><li>1. Lack of substantive studies which would document non-production values of carp ponds</li><li>2. Inability to find appropriate resources to survey production sites</li><li>3. Introducing unfavourable solutions while implementing the EU legislation (e.g. the Framework Water Directive )</li><li>4. Passivity of the fishing industry in the legislative process</li><li>5. Not strengthening the public administration responsible for strategy implementation</li><li>6. Ineffective lobbying of the fishing industry</li><li>7. Underestimating the positive impact of pond management on the environment</li></ol>

# Strategic plan – Aquaculture 2020

## Intensive aquaculture – indicators and risk analysis

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### Strategic objective 1

#### Reaching and maintaining the leading position in the EU in terms of production of fish from inland intensive aquaculture

Indicator	Factors which put the indicator fulfilment at risk
<p>42 000 tons of production (increase by about 23 000 tons)</p> <p>[Net production. The implementation indicator value should be primarily considered as Poland's position in relation to the size of production in other EU states (the indicator may be changed, depending on the market situation in the EU)]</p>	<ol style="list-style-type: none"><li>1. Insufficient financial support for production-related investments, modernisation, transfer of knowledge and technology, production insurance and promotional campaigns</li><li>2. Decrease in production profitability and a generally unfavourable market situation</li><li>3. Introducing charges for water and not considering the needs of fish farms in the national water policy</li><li>4. Lack of sustainable development of production in the EU</li><li>5. Worsening of the epizootic situation</li><li>6. Underestimating the production due to flaws in the fishery data collection system</li></ol>

## Strategic plan – Aquaculture 2020

### Intensive aquaculture – indicators and risk analysis [cont.]

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#### Strategic objective 2

Increasing the share of fish from Polish intensive aquaculture in the growing domestic fresh fish market to at least 35%

Indicator	Factors which put the indicator fulfilment at risk
18 000 tons of production sold on the domestic retail fresh fish market of (increase by about 10 000 tons)	<ol style="list-style-type: none"><li>1. Failure to reach the general production objective</li><li>2. Insufficient funds to support the national promotional campaign</li><li>3. Big differences and fluctuations of retail prices on the EU market which impact the export, import and sale on the Polish market</li></ol>

#### Strategic objective 3

Doubling the supply from Polish intensive aquaculture to the Polish processing industry

Indicator	Factors which put the indicator fulfilment at risk
20 000 tons of production sold on the domestic fresh fish market for processing (increase by about 10 000 ton)	<ol style="list-style-type: none"><li>1. Failure to reach the production objective</li><li>2. Insufficient funds to support the national promotional campaign</li><li>3. Crisis in the processing industry</li></ol>



# Strategic plan – Aquaculture 2020

## Supporting objectives – indicators and risk analysis

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### Strategic objective 1

#### Promoting common consumption of fish of aquaculture origin

Indicator	Factors which put the indicator fulfilment at risk
Fish consumption at the level of 14 kg <i>per capita</i> a year (increase by about 2 kg <i>per capita</i> )	<ol style="list-style-type: none"><li>1. Insufficient financial support for of the national campaign promoting fish consumption (effective promotion of generic products requires considerable expenses)</li><li>2. Market situation leading to a lack of sustainable increase of the society's affluence</li><li>3. Excessive increase of fish prices in relation to beef, pork and poultry</li></ol>

### Strategic objective 2

#### Making eating of locally bred fish fashionable

Indicator	Factors which put the indicator fulfilment at risk
<ol style="list-style-type: none"><li>1. Doubling the consumption of freshwater fish in periods other than December (to the level of 0.1 kg <i>per capita</i> a month)</li><li>2. Increasing the percentage of households which purchase fish farmed in Poland and freshwater fish (for trout – to the level of 50%)</li></ol>	<ol style="list-style-type: none"><li>1. Failure to fulfil the general production objective</li><li>2. Big differences and fluctuations of retail prices on the EU market which impact the export, import and sale on the Polish market</li><li>3. Insufficient funds to support the national image-related promotional campaigns</li></ol>

# Strategic plan – Aquaculture 2020

## Supporting objectives – indicators and risk analysis [cont.]

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### Strategic objective 3

#### Diversifying and reorienting the activities of micro- and small aquaculture enterprises

Indicator	Factors which put the indicator fulfilment at risk
75 aquaculture holdings started or developed an additional economic activity related to fish farming or breeding or which reoriented their activity	<ol style="list-style-type: none"><li>1. Insufficient incentives to diversify income or reorient activities</li><li>2. Lack of change in fish farm's attitude to undertaking additional activities not related to production.</li><li>3. Failure to fulfil the general production objective.</li><li>4. Failure to increase the profitability threshold (which, however, will have positive implications).</li></ol>

### Strategic objective 4

#### Targeting the Polish science, education system and administration at new aquaculture expectations on the Polish and foreign markets

Indicator	Factors which put the indicator fulfilment at risk
35 projects completed in cooperation of scientific and didactic institutions with commercial aquaculture entities	<ol style="list-style-type: none"><li>1. Failure to adjust the directions of scientific research and teaching curricula to the market reality and the needs of the sector</li><li>2. Insufficient funds for projects implemented in cooperation between scientific and didactic institutions and commercial aquaculture entities</li></ol>

**Thank you for your attention!**

