



CS1



Poland
Pond aquaculture.
Carp.



Industry partner: **ńskie Centrum Rybactwa sp. z o.o.**



Research partner: **West Pomeranian University of Technology in Szczecin**



Stakeholder: **Carp farmers**

Challenges

1. Changes in water supply

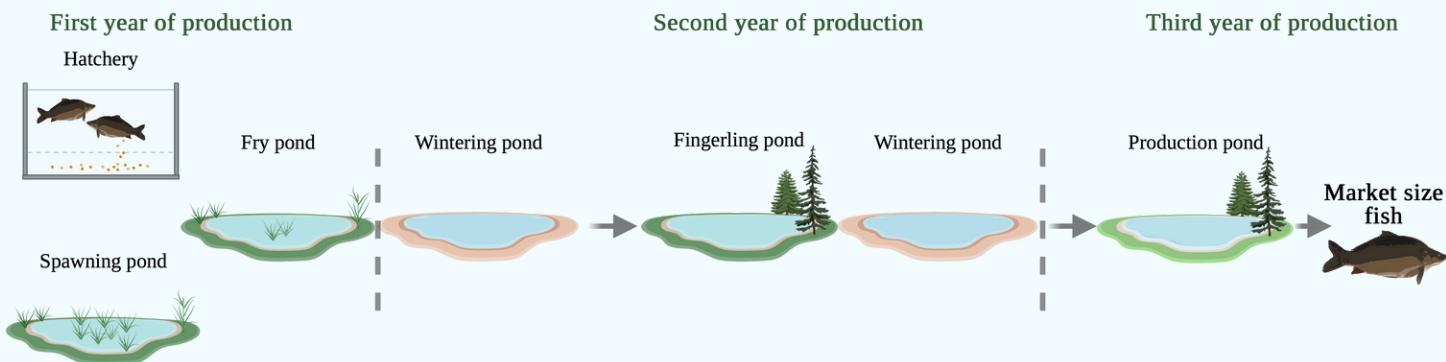
Recently, the common carp sector has been experiencing **water shortages caused by climate change**.

Common carp farming is highly sensitive to external factors including **unpredictable precipitation** (scale and frequency), **water quality**, and **extreme weather events**, from droughts to floods. The severity of isolated and cumulative impacts needs to be quickly assessed.

2. Deposited sediments during harvesting

To harvest the fish, ponds are seasonally drained, mobilising significant amounts of sediments deposited on the pond bottom during the production season, which have **adverse effects on water quality downstream of the farm**.

Our industry partner uses the Dubisch production method, demonstrated here:



Proposed solutions

S1A: Model and methodology for self-assessment of water availability



Develop a **self-assessment model for water availability and quality** using current and historical data on carp production, water flow, and hydrochemical conditions

Explore the **relationship between precipitation patterns and the production capacity** of the common carp sector

Develop **site-specific strategies** for sustainable water management

S1B: Upcycling of sediments

Development of strategies to **upcycle pond sediments**

Elaboration of **templates and recommendations** for monitoring, capturing, and reusing sediments

Reduce **adverse effects** associated with pond draining and limit the farm's **impact on downstream aquatic environments** during harvesting and fish relocation

Follow the project here:



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