

DETERMINANTS OF SPECIFIC CARP SUPPLY CHAIN IN THE LOWER SILESIA PROVINCE IN POLAND

dr Magdalena Raftowicz-Filipkiewicz

National Marine Fisheries Research Institute/
MIR-PIB, Poland

Wroclaw University of Environmental and Life Sciences



Plan

1. Introduction
2. Materials and methodology
3. Chain supply of carps in Lower Silesia Province, Poland
4. Conclusion



Main goal

- Research in the framework of the EU project Horizon 2020: "Strategic Use of Competitiveness towards Consolidating the Economic Sustainability of the European Seafood sector" (SUCCESS) aimed to indicate the determinants of carp supply chain in Lower Silesia Province.



Introduction

- The tradition of pond fish farming in Poland - XI and XII centuries → **the Cistercian Order.**
- The Christian religion → fasts (more than 200 days a year) → demand for fish.
- XVI-XVII - centuries - **the Golden Era of Polish carp farming** - ponds 100-1000 ha (especially in the Barycz Valley)



Introduction

- The transformation of the Polish economy influenced the structure of the fish farms.
- Currently in the Barycz Valley operates the largest carp breeding centre in Poland and the whole Europe.





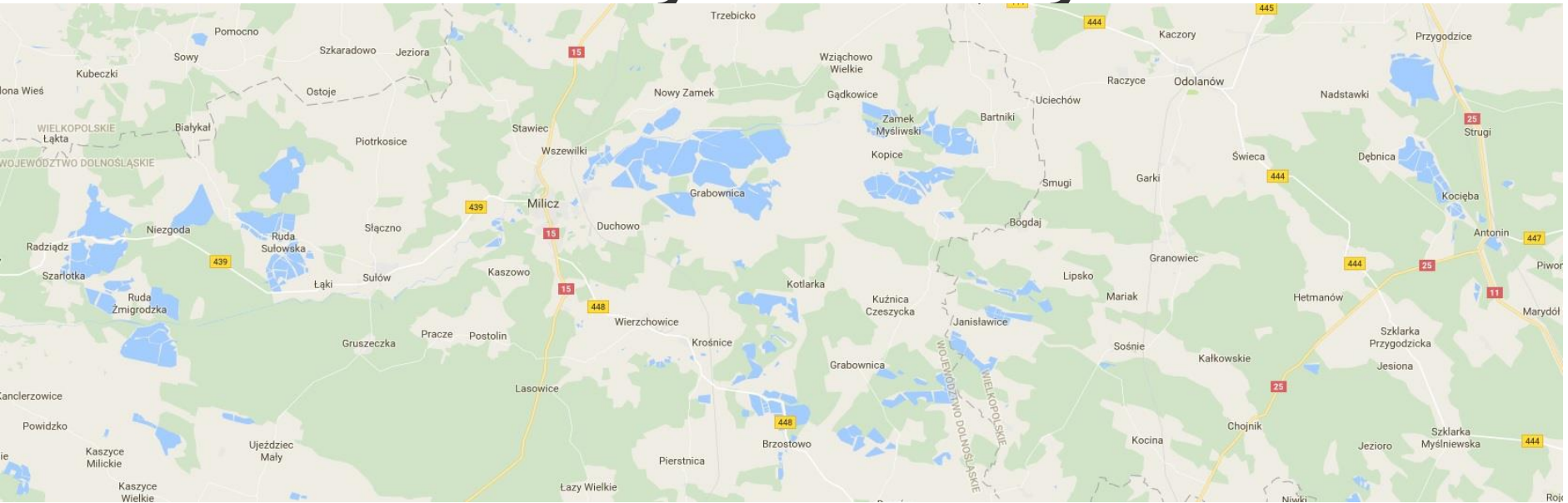
Barycz valley

Wroclaw

Warsaw



Barycz Valley

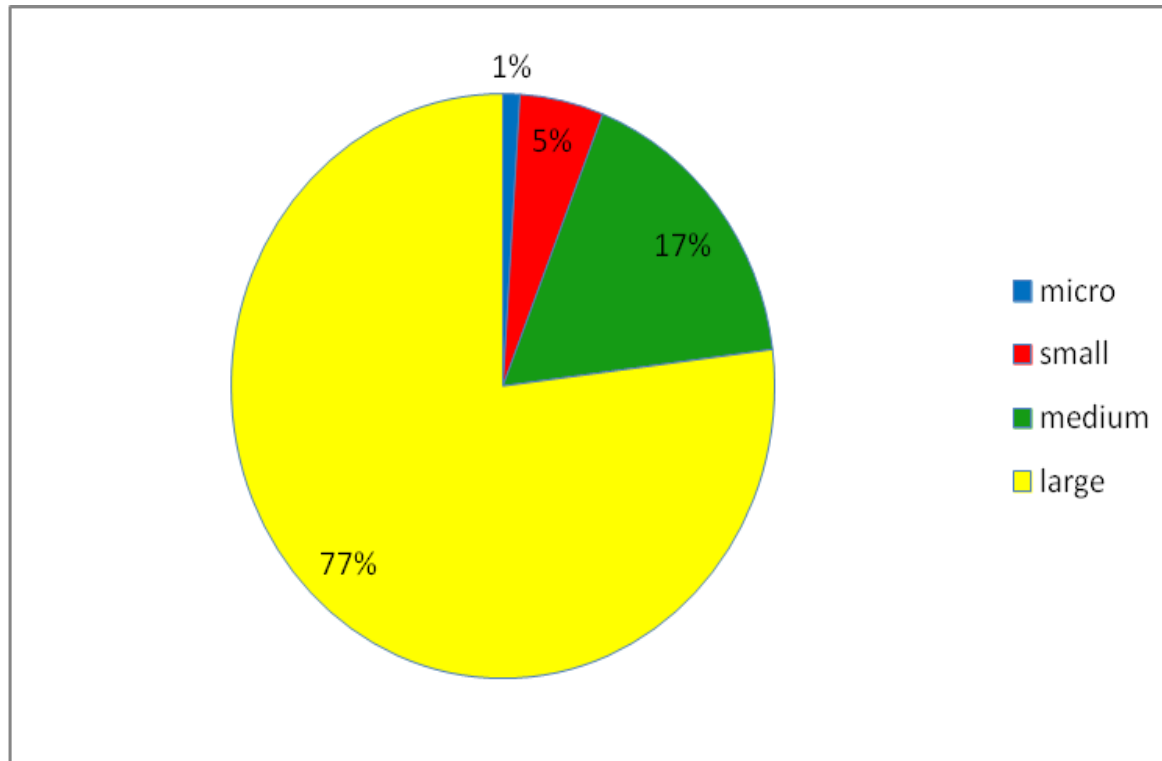


Materials

- in 2015 on the territory of the Lower Silesia Province there were already 48 fish farms with the area of 8493 ha.
- the surface structure was dominated by the complex „Milicz Ponds” (77% of all areas).



The structure of fish farming areas in the Lower Silesia Province



categories	[in ha]
micro	<10
small	10-80
medium	80-300
large	>300

Natura 2000 - in the Lower Silesia

- Currently, there are 99 areas under the *Natura 2000* protection, including:
- 11 areas of a birds special protection with total area of 309 803,3 ha,
- 88 special areas of habitats protection with total area of 375 539,8 ha.



Metodology

- The research was conducted in July and September 2016 by in-depth interviews, based on a prepared questionnaire.



Results

- 80-90% of sales (especially wholesale) takes place in the period of the Christmas Time



Fish farms

- The study has also shown that a universal model of the supply chain of carps does not exist.

The supply chain of carp in the case of small fish farms.

	In [%]	Selling price in PLN
Retail Customers	50	12-13
Restaurants	20	10,5
Wholesalers and chain stores	30	10,5



The supply chain - medium carp farms

	in [%]	Selling price in PLN
Retail customers	10	14
Fishmongers	2	10-12
Restaurants - own + other	20	12
Own fisheries for anglers	5	10
Commercial fisheries for anglers	10	10
Processing plants	5	9
Wholesalers and chain stores	8	8
Intermediaries	40	8-9



The supply chain for large carp farms

	in [%]
Retail customers	7,87
Supermarkets	31,33
Own restaurant	0,16
Processing plants	58,8
Wholesalers	1,02
Intermediaries	0,82

Supply chain



- Fish farms
- Restaurants
- Chain stores
- Intermediaries
- Wholesalers
- Processors
- Fish shops

+ Local Fishery Group:
Partnerstwo dla Doliny
Baryczy

+ Lower Silesia Fish
Breeders Cluster



Dolnośląski Klaster
Hodowców Ryb

Conclusions

- The carp supply chain in the Lower Silesia Province in Poland was strongly determined by **historical, geo-political, cultural and even religious factors** as well as by **the volume of production**.
- The universal model of the supply chain of carps does not exist.

Conclusions

- "Local Fishery Group,, tries to promote a year-round consumption of carp.
- The novum is the diversification of fish farming activities by putting emphasis on **angling, catering and recreation development**. These activities shorten significantly the supply chain.



Conclusions

- The unexploited potential in the supply chain is related to the exportation of carps to UK or Ireland because of the massive migration of Poles to those countries after 2004.
- This requires the development of processing which is practically non-existent in the Lower Silesia Province.



Conclusions

- On the territory of the Lower Silesia Province, **there are no processing plants**, which would have in their offer carps from the region and **no fish shops**, which would offer a yearlong sale of carp from this region.

Thank you

magdalena.raftowicz-filipkiewicz@upwr.edu.pl

