



Session: Aquaculture in Eastern Europe  
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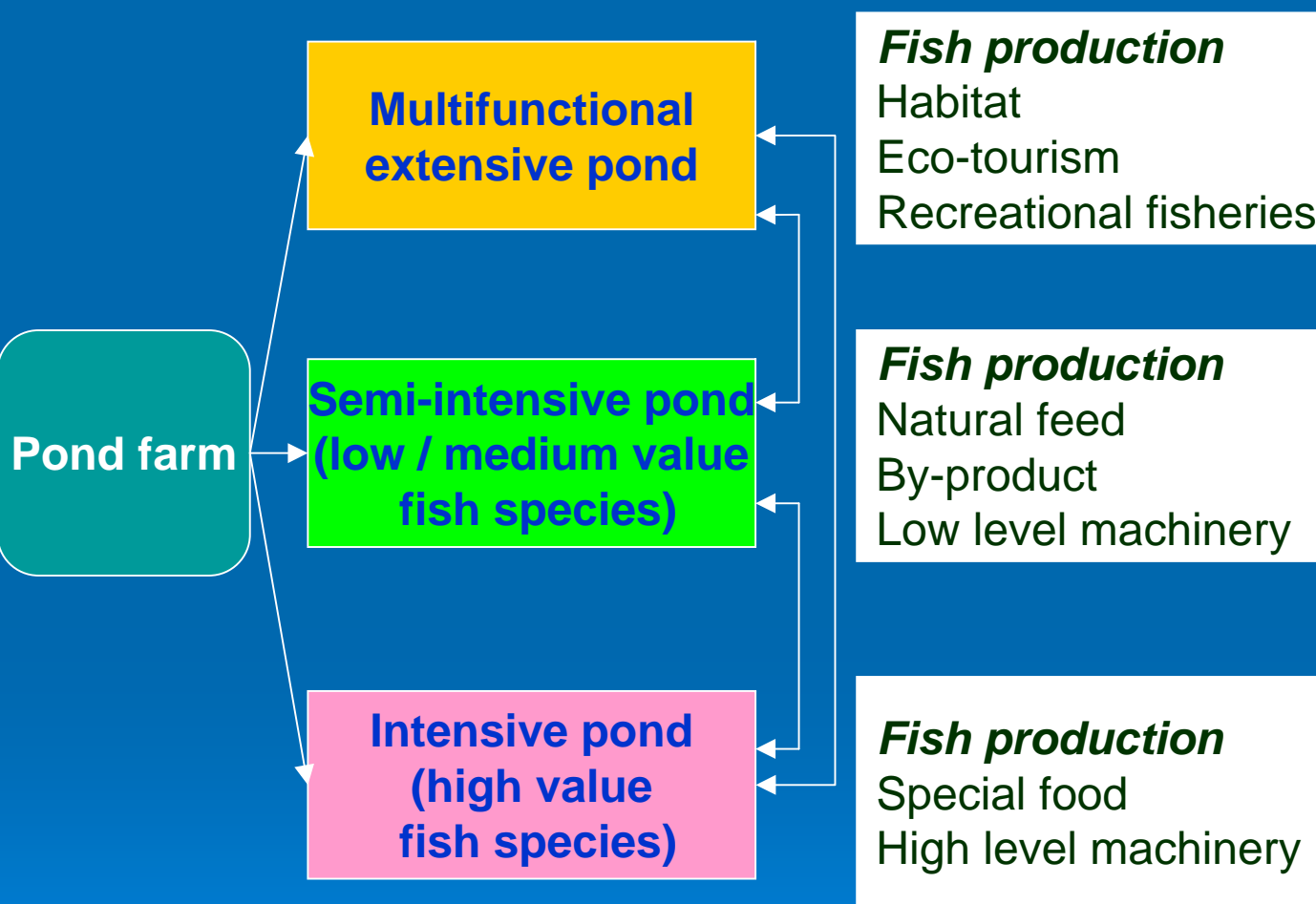
# Multifunctional pond fish farming

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# DIVERSIFICATION OF POND FISH FARMING



# FUNCTIONS OF THE MULTIFUNCTIONAL POND FARMING

Rural area

Environment protection  
(renewable source)

Rural area

Food production  
(technology)



Nature conservation  
(biodiversity)

Rural area

Recreation  
(angling, tourism)

Rural area

# WHY MULTIFUNCTIONALITY?

- Market constraints
- Strict environmental regulations
- Limited and expensive water resources
- Needs for recreational services
- Special conditions in pond fish farms
- Incentives and subsidies



# „Aranyponty” Fish Farm as an example of multifunctional pond fish farms

## Rétimajor CENTER

### LEGEND

1. Visitor center
2. Fisheries museum
3. House of old professions
- 4-5. Staff houses
6. Feed storage
7. Green house
8. Horse barns
9. Mini zoo
10. Sport facilities
11. Camping
- 12-13. Water supply system
14. Fisheries pub
15. Machine yard
16. Garages for guest
17. Farm garages
- 18-22. Fish ponds
- 20-21. Angling ponds
23. Ornamental pond



# I. Fish production

- Good quality fish for local and export markets
- Stocking material for angling clubs
- Organic fish for local markets and export
- R&D activity



# I. Fish production

## Fish harvesting



## II. Nature reserve and environment protection

- Maintenance and protection wetland habitats
- Utilization of renewable resources
- R&D activity





## II. Nature reserve and environment protection



**Wild geese in wintertime**

# II. Nature reserve and environment protection

## Utilisation of „renewable” energy resources

- **Thermal water** (30 °C, 400 m)
  - Heating
  - Greenhouse
  - Winter angling
  - Wellness center



# II. Nature reserve and environment protection

## Utilisation of renewable energy resources

- **Water energy**
  - Micro hydroelectric power station
- **Wind energy**
  - Usage of windmills for water pumps, water aeration, production of electricity



## II. Nature reserve and environment protection

### Utilization of renewable resources

- Reed utilization
  - 40-70.000 sheaf yearly
  - Roof, reed-drape, other ornamental



### III. Services for anglers

- The angling centre of the farm provides various options for the visiting anglers
- Recreational facilities are also available for visitors
- Organizing angling competitions



# III. Services for anglers

- Angling center - Örpuszta
  - Building of special ponds
  - Recreational park, playground, camping
  - Complex service (buffet, bait shop, bathrooms, closed parking, accommodation, bicycle rental, etc.)



# III. Services for anglers



## IV. Services for tourism

- Bird watching (220 species, among them 181 are protected)
- Excursions in the area
- Fishermen's pub and wine cellar
- Small hotel and guest houses
- Recreational facilities
- Spa with medicated hot water
- Wellness centre



# IV. Services for tourism

## Traditional fish restaurant



# IV. Services for tourism

## Ecotourism - Photo tourism and bird watching

- Scouting routes
- Information boards
- Watchtowers
- Bird feeding pond



# IV. Services for tourism

## Training, demonstration, meetings

- Fisheries heritage (fisheries museum)
- Conference and social events
- Training programs
  - on wildlife and nature
  - on fisheries and aquaculture
  - on the use of natural materials



# IV. Services for tourism

## Fisheries museum

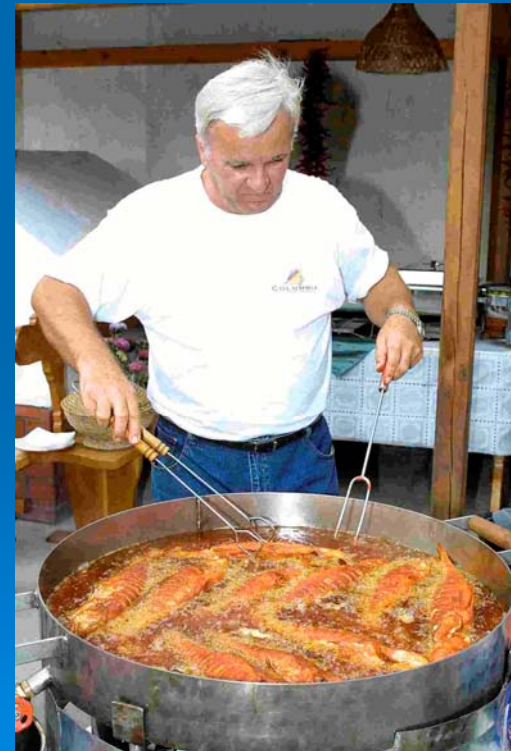
- Wetland school and exhibition pond
- Scouting routes



# IV. Services for tourism

## Festivals and fairs

- „Season opening fish festival”
- „Saint Peter’s day festival”
- „Wetland fair”



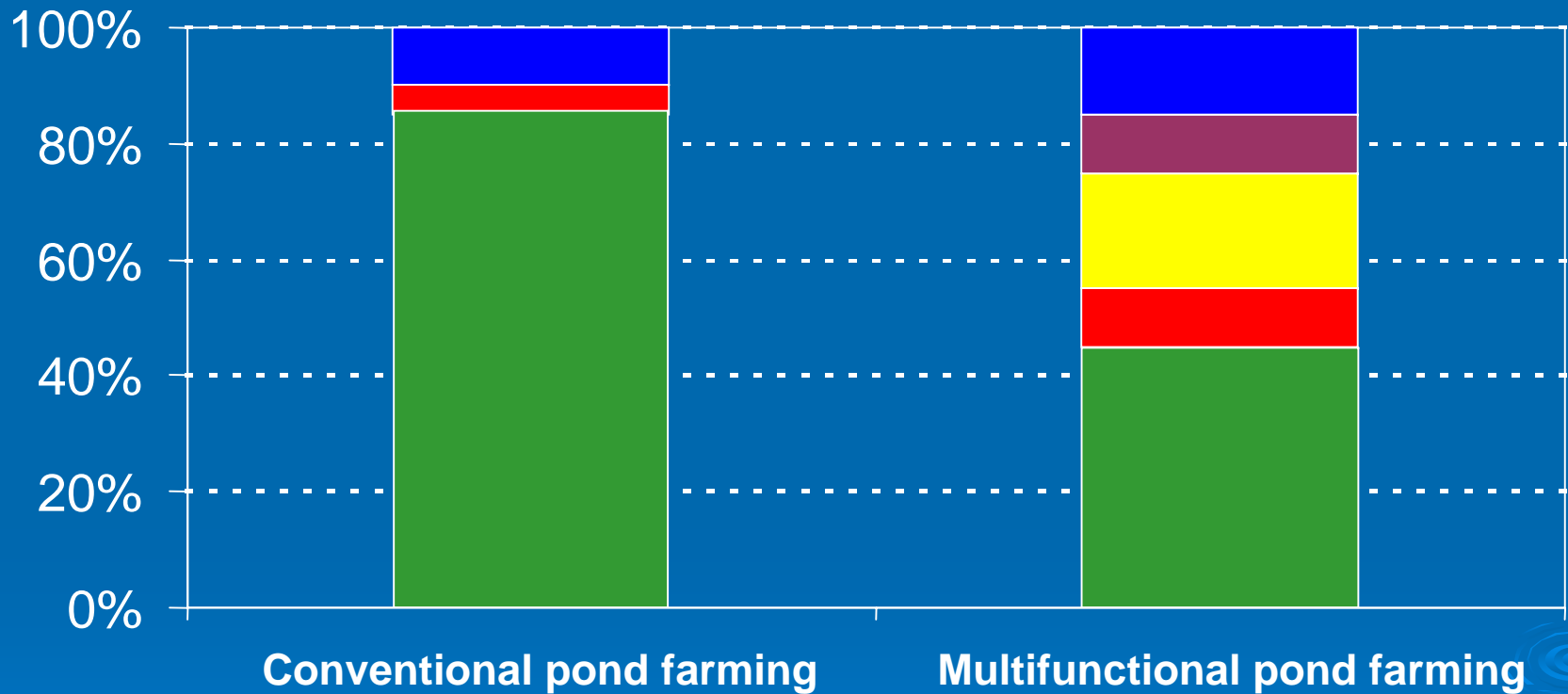
# MAIN ADVANTAGES AND BENEFITS OF MULTIFUNCTIONAL POND FARMING

- Better **economic stability** due to diverse farm activities
- **Additional incomes** from various services (for tourists and anglers)
- **Increasing employment** in rural areas
- Access to **financial support** given to environmental-friendly farming
- Opportunity for **organic farming**
- **Improved image** of the farm

# STRUCTURE OF THE FARM REVENUE

1000-2400 USD / ha / year

+ 20-50% revenue



■ Production

■ Angling

■ Subsidy for nature conservation

■ Subsidy for production

■ Tourism

# MAIN CONSTRAINTS AND DIFFICULTIES OF MULTIFUNCTIONAL POND FARMING

- The establishment of a multifunctional farm needs **complementary investment**
- The management of the complex farm requires **special skills**
- **Service providing** is completely different from farming
- The **minimum farm size** should be relatively large and consist of **several ponds**
- The farm should be located in an **attractive and valuable natural area, nearby cities**



# FUTURE TRENDS IN THE DEVELOPMENT OF MULTIFUNCTIONAL POND FARMING

- The natural value will **increase** further  
(Sensitive area, wetland habitats, agri-environmental program)
- **Angling** continue to be popular, and offer good business opportunities
- **Organic fish** market is growing, though remains limited
- **Environment-friendly production** is subject to **financial support** (subsidies, e.g. European Aquaculture Fund – 2007-2013)
- Environmental and nature conservation **regulations** on farming will be more strict

**THANK YOU FOR YOUR ATTENTION!**

