Problems and perspectives of the aquaculture sector in Hungary after joining the European Union

Laszlo Varadi and Zsigmond Jeney
Research Institute for Fisheries, Aquaculture and Irrigation, Szarvas, Hungary
Resources for aquaculture in Hungary

Natural water area: 140,000 ha
Fishpond area: 25,000 ha
Fish farms in Hungary
Extensive and semi-intensive pond fish production
Intensive fish production in geothermal water
Aquaculture production 1990-2003
Species composition in pond aquaculture

- Common carp: 74%
- Silver carp: 13%
- Grass carp: 4%
- Bighead: 2%
- European catfish: 1%
- Other: 1%
- Wild fish: 5%
Common carp hybrids of HAKI
Species composition in intensive aquaculture

- African catfish: 94%
- trout: 3%
- sturgeons: 1%
- eel: 1%
- other: 1%
African catfish production 1990-2004
Pond fish production is dominant form of aquaculture
Role of pond aquaculture in the economy

• Producing healthy food without deteriorating the environment
• Maintaining biodiversity by providing habitat for aquatic species
• Contributing to water- and landscape management programs
• Contributing the improvement of rural livelihood in disadvantaged regions
• Providing conditions for recreational fisheries and eco-tourism
Diversification of fish pond use

- Multi-purpose extensive ponds
  - Habitat
  - Eco-tourism
  - Angling
  - Fish rearing

- Semi-intensive ponds for the production of medium and low market value species
  - Fish production based on the utilisation of natural food, organic by-products and wastes

- Intensive ponds for the production of high market value species
  - Fish production based on the use of formulated feed and high level technical support

Large-scale pond fish farms
Main problems in aquaculture development 1/3

MARKET

- Fierce market competition (with other carp producing countries; import seafood products; non-fish products)
- Low level of market organisation (low bargaining power against supermarkets)
- Poor promotion and marketing
Main problems in aquaculture development
2/3

PRODUCTION AND PROCESSING

• Poor condition of ponds and facilities
• Dependence on traditional technologies and few species (low level of innovation)
• Undeveloped fish processing industry
• High water charges
• Overregulation (food safety, animal welfare etc.)
• Lack of reliable statistical data
• Poaching (inadequate measures against poachers)
Main problems in aquaculture development

3/3

ENVIRONMENT

• Increasing competition for water resources (nature protection, tourism)

• Overregulation (NATURA 2000, Water Framework Directive and hundreds of others)

• Damage caused by protected animals (without compensation)

• Positive role of fish ponds has not been recognised (control fish farms rather than accept them as partner)
Opportunities

• Services for anglers, tourism and restocking
• New technologies (water efficient and environment friendly)
• Species diversification (catfishes, pike-perch, tilapia, striped bass)
• Organic fish production
• Market development (producer’s organisations, BMP, logos and trade marks)
• Assistance for developing countries
Needed

• Clear national strategy in aquaculture development

• Higher level of innovation to access financial sources and to comply with regulations (through better collaboration with R&D institutions)

• Better collaboration among producers through producer’s organisation (to increase bargaining power and gain better market position)

• Improve the image of the aquaculture sector (lobby, programs for the citizens, etc.)
Examples of positive developments

• Combined extensive-intensive pond system
• Effluent treatment on constructed wetland
• Multifunctional fish farm
• Intensive technology for pike-perch
• Promotion campaign on common carp
• Association of organic fish producers
Combined intensive-extensive system
Constructed wetland
Multi-functional pond fish farm
EU CRAFT Project „Lucioperca”
The elaboration of the biological and technological basis of intensive pikeperch production

**Budget**: 980,000 Euro

**Consortium members**: 4 R&D institutions and 5 SMEs from Belgium, The Netherlands and Hungary
Promotion campaign on common carp
Association of organic fish producers

GERMANY
2003: < 200 t

AUSTRIA
2003: < 100 t

HUNGARY
2003: < 100 t
Future: 6 farms with an area of 4600 ha
Assistance to the development of the aquaculture sector in Hungary

Financial Instrument for Fisheries Guidance, EU-FIFG

Total budget: 2.7 million Euro
Support: FIFG 38%
    National: 12%
    SME’s own contribution: 50% (average)

1. Construction and reconstruction of aquaculture facilities (55%)
2. Construction and reconstruction of fish processing plants (55%)
3. Support to capture fisheries in inland waters (50%)
4. Marketing promotions (50%)
5. Establishment of production/marketing organisations (0%)
6. Innovative technologies (0/53%)
Thank you for your attention