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New opportunities in pond fish culture

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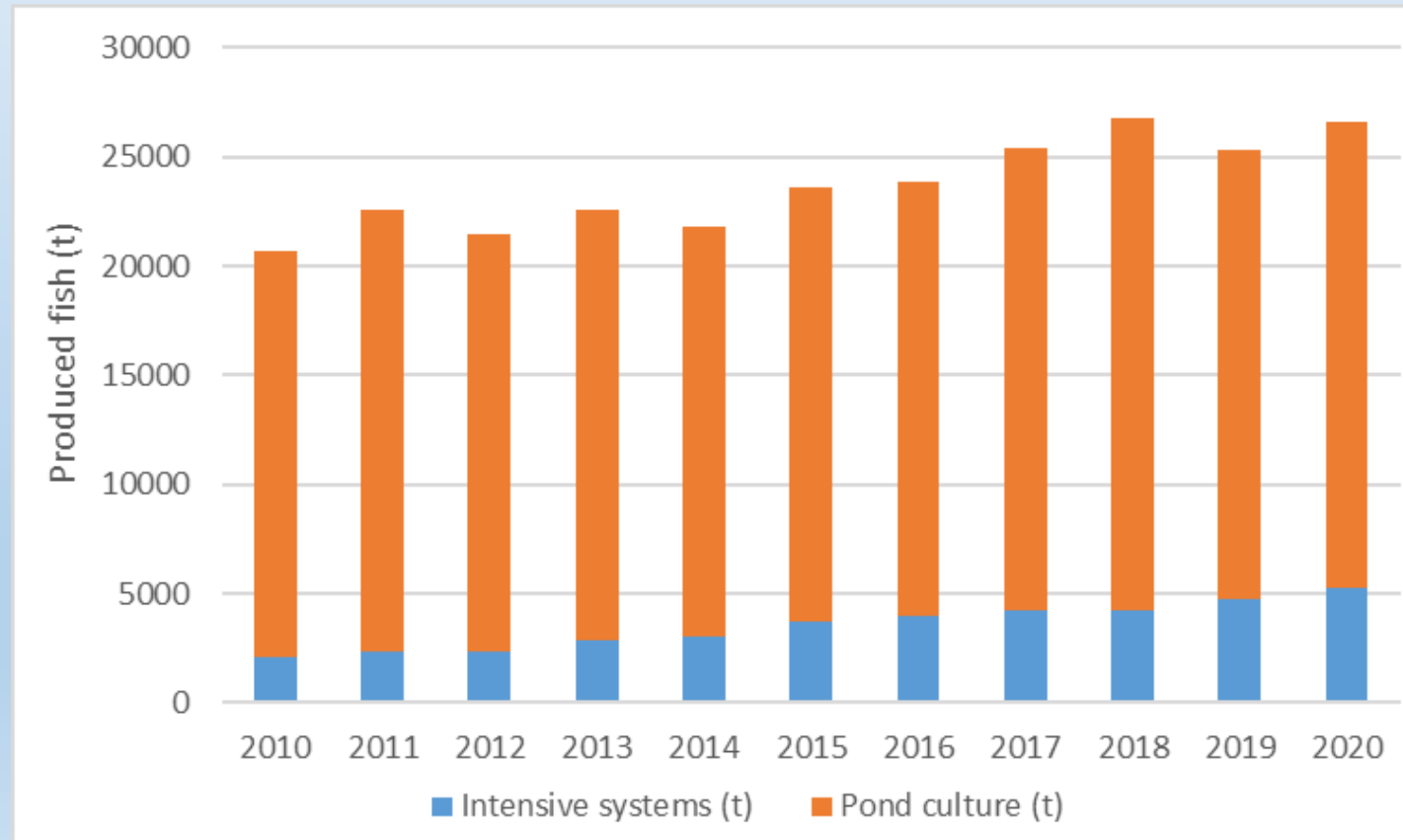
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Current situation of the Hungarian Pond fish culture I.

- Reduced importance, but still unquestionable role in the Hungarian fish production
- More than 26000 ha fishponds
- Increasing production costs
- Decreasing the availability of the human resources





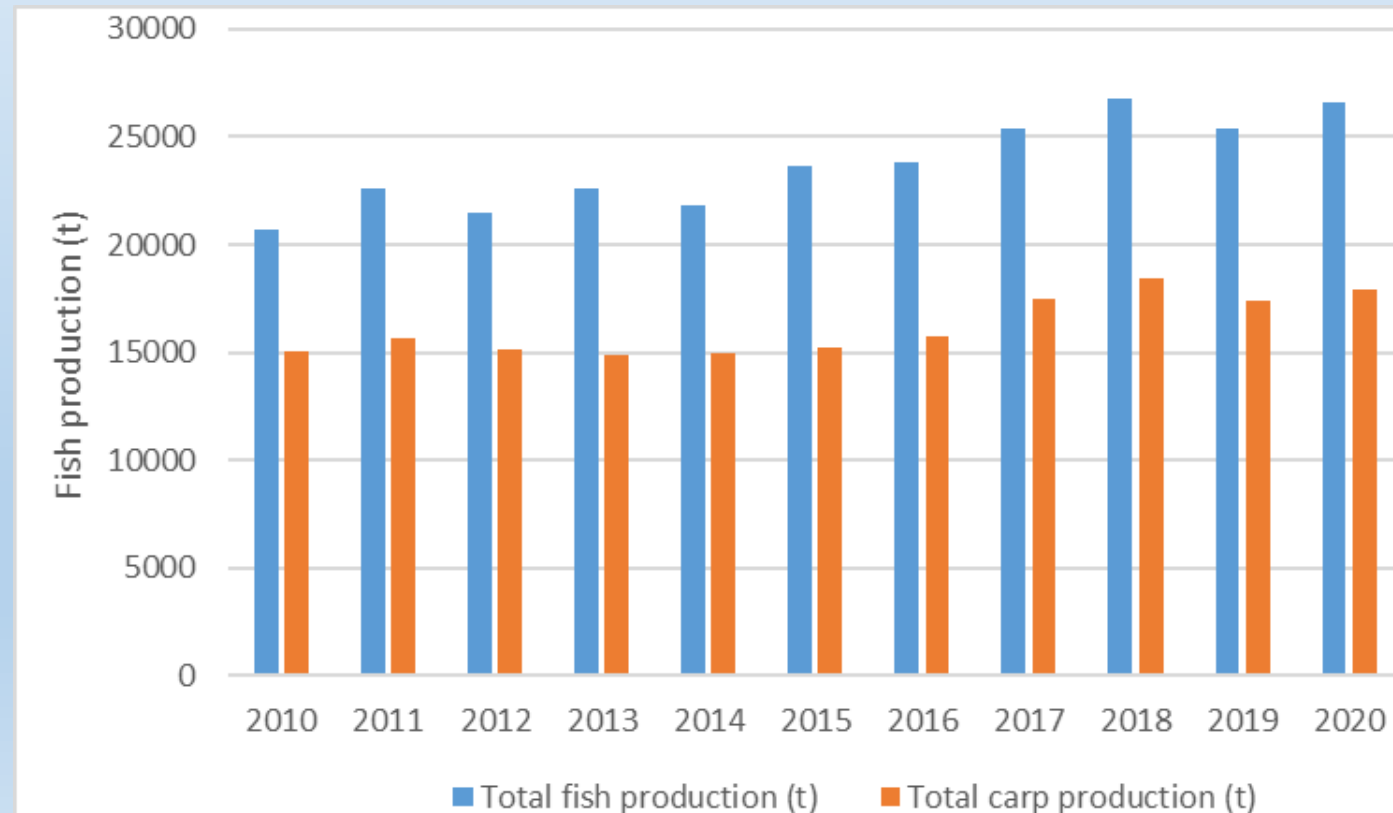
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Current situation of the Hungarian Pond fish culture II.

- The most important fish species is the common carp (*Cyprinus carpio*)
- 67% of total produced fish in Hungary
- 83% of the total produced fish in fishponds





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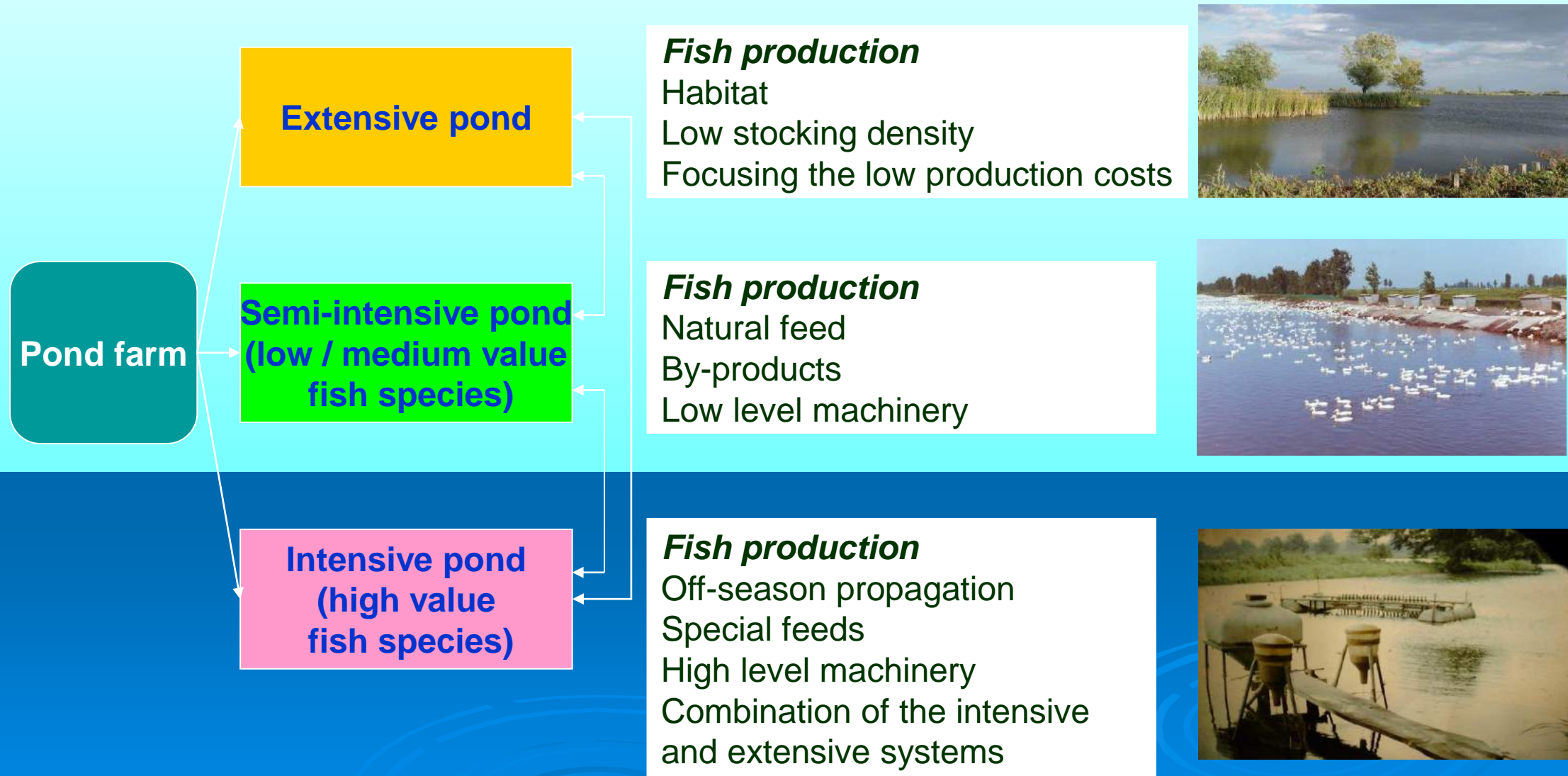


Behind the numbers

- More than 50 years old technology
 - Growing cost, stagnated price
 - Increasing costs
 - Low export opportunity
 - Low fish consumption
 - Deteriorating infrastructure
- circumstances with high maintenance costs



DIVERSIFICATION OF POND FISH FARMING





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Renewing the pond fish culture (Multifunctional fishpond)

- Bird watching - Photo tourism
- Angling
- Ecotourism
- Hunting





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Bird watching –Photo tourism

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





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Angling

- Extra income
- Easy to sell the fish
- Almost whole year activity
- By-products (baits, fishing equipment, fishing license)





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Ecotourism

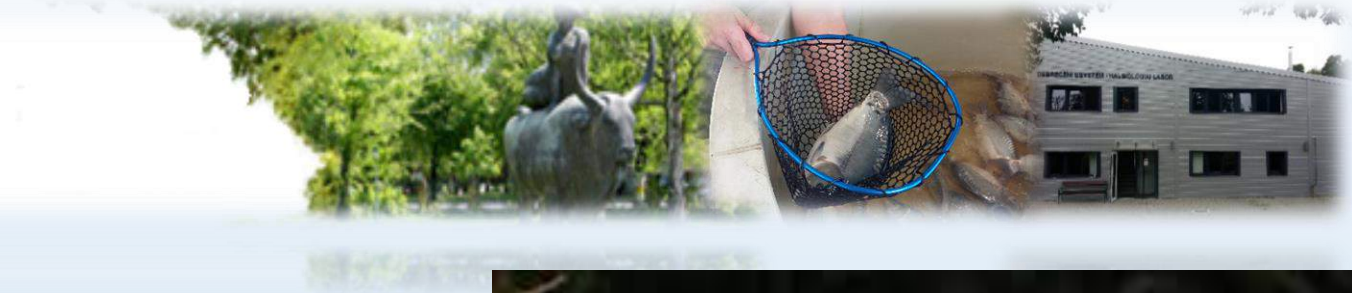
- Accommodation and catering
- Touristic programs:
 - boat cruise
 - horse riding
 - educational walking paths
 - bicycle roads





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Hunting

- Water birds (geese, duck)
- Wild boar
- Roe deer





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Renewing the pond fish culture (new production structures)

- It looks like the classical production technology is a dead-end
- The main goal to maximize the profit and we have got two way to improve: intensification or extensification





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Intensification of pondfish culture

- Reducing the production period because the general production time is 3 years
 - Using artificial feeds (good sample: the Serbian fishponds)
 - No need pond fertilizers (reducing cost)
 - Better FCR values –much less feed used during the production period
 - Less transporting, storing and spreading costs of the feed





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Intensification of pondfish culture

- Reducing the production period because the general production time is 3 years
 - Off-season propagation end of february (common carp, european catfish)
 - Fingerling rearing in recirculation system and stocking them in the middle of spring





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Intensification of pondfish culture

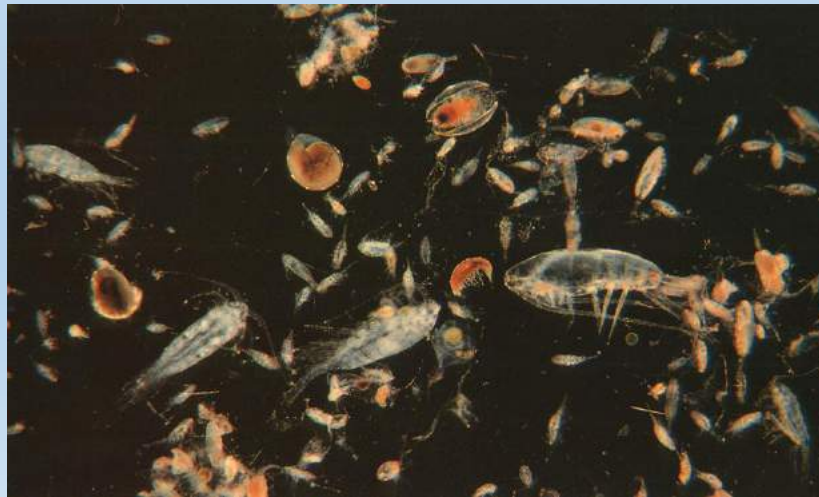
- „Pond in pond” production system
 - Cage culture into the fishpond
 - Choosing high value fish species for the intensive rearing (catfish, pike perch, perch, tench)
 - Using artificial feed in the cages and conventional feeds outside the cages
- Pond recirculation systems





Extensification of pondfish culture

- Main goal to reduce the production cost- we have different tools
 - The biggest cost is always the feeding cost
 - Maximize the zooplankton production with the appropriate fertilization
 - Optimize the stocking density (less fish-bigger fish, more fish-smaller fish)
 - At lower stocking density easier to keep the optimal zooplankton quantity into the fishpond
 - Reducing the vet costs





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**Thank you for
your attention!**

