



National Policies and
Strategies for Food,
Land and Water Systems
Transformation

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A photograph showing a man in a blue shirt and dark pants standing on the bank of a pond. He is leaning forward, holding a large orange bucket and pouring feed into the water. A large group of fish is gathered in the water, splashing and feeding. The background shows some greenery and a concrete structure.

Resilient Aquatic Food Systems for Healthy People and Planet

Primary action area: Resilient Agrifood Systems

❖ **RAqFS expected benefits per Impact Area by 2030:** 4 million people meeting minimum micronutrient requirements; 7 million people benefiting from CGIAR innovations; 3.5 million women benefiting from CGIAR innovations; reduction of 5.28 MT CO₂ eq./y; 3.85 million hectares brought under sustainable management



Main Focus

Investing in effective aquatic food system (AqFS) governance, informed by research, address the multiple threats by eliminating the key systemic challenges facing the sector, offering transition pathways to a more just, nutritious, healthier, lower-carbon, and climate-resilient food system.

Main approach is to address the following Key Systematic Challenges:

- ❖ Lack of data (or access to it) has curtailed informed policy and investment decision making (WP1)
- ❖ With farmers often fail to consider the interests of stewards of the aquatic commons. Partnerships also don't cross over into wider food systems and ocean-economy policy spaces, leaving AqFS actors marginalized in development programs and “blue economy” processes (WP2)
- ❖ Aquatic foods have great potential to enhance water productivity, provide nutritious food, income and employment opportunities, contribute to climate change mitigation and restoration of land-water systems – but are often overlooked in water resource Management (WP3)
- ❖ Genetic improvement programs in agricultural research have focused on crops and livestock and there has been limited investment in the development/promotion of farmed fish varieties with the potential to minimize environmental impacts, reduce GHG emissions and increase profitability for small-scale farmers (WP4); and
- ❖ While there are many potential solutions to AqFS challenges and innovations to seize opportunities, these have not been scaled because national Agricultural Innovation Systems (AIS) don't extend to aquatic foods and the AIS approach hasn't been much used in the AqFS (WP5).

Key Research questions

- ❖ What information and data needed at different scales, what tools, approaches and partnerships to generate data, and how can the evidence generated by aquatic foods research influence policymaking and private sector decisions and investments? (WP1).
- ❖ How can access rights and management systems, including the rights and practices of traditional small-scale actors, and national agendas and programmes for aquatic food system ensure the benefits of aquatic foods and small-scale-actors in sustainable development? (WP2)
- ❖ How and which scaling pathways are effective to upscale water and land integrated production system and foster the adoption by small-holder farmers, and how and what design principles and lessons can be applied to investments to upscale aquatic food production in water infrastructures to enhance social inclusion of integrated systems into project design and policies? (WP3)
- ❖ How to develop faster growing strains of tilapia with additional resilience traits that improve returns for smallholders while reducing environmental impacts, and carp for multispecies rearing systems to returns for smallholders and to develop sustainable genetic improvement programs for species in high demand - African catfish? How to increase access to and the benefits of improved strains that meet women and men smallholder farmer preferences and needs? (WP4)
- ❖ What have been the key determinants of success and failure in large-scale adoption of previous AqFS innovations, what role did innovation platforms and living lab type structures play in these outcomes and how can the bottlenecks be addressed by new AquaLabs in efficient, equitable and sustainable ways? (WP5)



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