

# Rice-fish culture Integrating rice and fish farming systems

Rice-Fish System Boosts Profits, Enhances Lowland Land Use for Food Security and Prosperity



AfricaRice

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Ephraim Sekyi-Annan

Rice-fish co-culture integrates rice and fish farming, boosting food security and farmers' income while ensuring environmental safety by eliminating agrochemicals. It's an innovative approach for food security, economic stability, and environmental sustainability.

This technology is **pre-validated**. 9·7 Scaling readiness: idea maturity 9/9; level of use 7/9

Gender assessment 4 Climate impact 6 1

### Problem

- **Food insecurity:** Limited access to nutritious food, resulting in nutritional deficiencies.
- **Market vulnerability:** Dependence on rice exposes farmers to market fluctuations, contributing to economic instability.
- **Environmental pollution:** Overuse of agrochemicals leads to soil and water pollution, harming biodiversity and ecosystem health.

### Solution

- **Enhanced profitability:** Rice-fish co-culture improves economic viability with a higher benefit-to-cost ratio (2.2), addressing food insecurity.
- **Market resilience:** Rice-fish farmers demonstrate greater resilience to market shocks due to diversified income sources, ensuring economic stability.
- **Nutrition security:** Fish consumption directly tackles nutritional deficiencies, enhancing food security with a diverse and nutritious diet.

Commodities  
Rice, Fish

Sustainable Development Goals

Categories  
Production, Practices, Water management, Soil fertility

Tested/adopted in

■ Tested & adopted  
■ Adopted  
■ Tested

Where it can be used

This technology can be used in the colored agro-ecological zones.

Target groups  
Farmers, Fish Farmers

Cost: \$\$\$	<b>5,428 USD</b>	ROI: \$\$\$	<b>115 %</b>
Initial Cost per Ha		Benefit	
<b>3,016 USD</b>	<b>18,188 USD/ha</b>	💡 IP	
Operating Cost	Benefit	Open source / open access	



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<https://e-catalogs.taatafrica.org/org/technologies/rice-fish-culture-integrating-rice-and-fish-farming-systems>

Enquiries [techs@taat-africa.org](mailto:techs@taat-africa.org)

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