

AGRITECH ADVANCE PROJECT SPOTLIGHT

Rural Aquaculture Development (RAD)

RADiCool SCALE - Sustainable Cold-chain Acceleration for Local Enterprise

About the project

Rural Aquaculture Development (RAD) is expanding access to affordable, ultra-low-carbon cold-chain solutions for smallholder fish farmers and traders across rural Uganda. Through the Agritech Advance Call, RAD will deploy 10 RADiCool solar-powered cold-storage units across three aquaculture hubs, reducing post-harvest losses and improving income opportunities for farmers operating in remote, off-grid areas.

RADiCool combines a portable insulated box, advanced phase-change material (PCM) cooling panels, and built-in smart monitoring to maintain temperatures at $<5^{\circ}\text{C}$ for 24 hours or more. The system provides an affordable alternative to conventional cold-chain options, supported through a Cooling as a Service model that allows users to pay per PCM recharge without needing to purchase expensive equipment.

The project will strengthen local manufacturing partnerships, onboard in-country technicians to support assembly and maintenance, and refine the commercial model by testing adoption among fish farmers, traders and small urban vendors. By enabling reliable cold storage at the first and last mile of the supply chain, RADiCool is expected to cut spoilage and improve profitability for rural aquaculture enterprises.

This work builds on RAD's successful pilot hub in Rukungiri and will establish a scalable foundation for future expansion across Kenya, Mozambique and Uganda, supporting climate-resilient food systems and improved livelihoods for underserved communities.

“Support under Agritech Advance allows us to expand RADiCool into new markets and show how clean, reliable cooling can reshape income opportunities for smallholder fish farmers. It enables us to build on the original idea conceived in 2023 and piloted under the Agritech call, resulting in rural producers being able to keep their harvest fresh long enough to reach better markets.” **Tim Messeder, Founder, RAD**



Agritech Advance Grantee

Rural Aquaculture
Development (RAD)

Organisation Founded

June 2023

Technology

Solar-powered cold storage
units

Project Location


Kenya, Mozambique, Uganda

[Learn more about RAD](#)


Photo Credit: RAD




Learn more about
Agritech Advance

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