Viet Nam



Organization: Hiep hoi Cao dang Cong dong Viet Nam (Viet Nam Association of Community Colleges, VACC)
Location: Tra Vinh, Ben Tre and Soc Trang provinces, Viet Nam
Solution: Water storage systems for domestic and agricultural through a circular economy approach in Viet Nam
Factsheet Period: One round of UNDP AFCIA funding (16 months)



Field surveying to select households for domestic water needs and agricultural water storage @VACC

In Viet Nam, 56% of the rural population relies on unsafe water sources, leaving millions vulnerable to pollution and threatening agricultural production, particularly in the Mekong Delta. To address this, the Viet Nam Association of Community Colleges repurposes leftover materials from shrimp farming ponds to create water storage and automatic irrigation systems. Farmers are trained to build and use these systems, enabling them to capture and store rainwater for the dry season, reduce water costs and effectively reuse materials. Additionally, it helps upskill farmers and promotes sustainable water management practices, improving the resilience of rural communities.

Key achievements

- Provided clean water storage and filtration systems to 25 vulnerable households, benefiting over 100 people.
- Installed 47 rainwater storage units, including tanks and innovative water bags made from recycled shrimp-farming materials, helping families prepare for dry seasons.
- Trained 43 farmers and 32 local leaders on climate-resilient farming, irrigation and pest control.
- Selected 341 households (56% women) in water-scarce areas to participate in the programme.
- Designed and piloted durable, easy-to-use water storage and irrigation models across three provinces, tailored to local needs.
- Improved health by reducing waterborne diseases linked to contaminated groundwater.
- Increased farmers' incomes by around 50% through better yields and lower water costs.
- Enhanced sustainability through community training, local partnerships and full handover of tools and knowledge.

Social impact

- Diversifies income streams for farmers in poverty, reducing economic vulnerability and promoting sustainable livelihoods.
- Empowers women farmers by providing access to innovative water-harvesting technology, enhancing their productivity and financial independence.
- Enhances community health outcomes through improved access to clean water.







Adaptation benefits

- Provides a scalable, affordable solution for water-scarce areas during the dry season.
- Mitigates crop damage from drought and salinity, protecting agricultural productivity.
- Equips farmers through training to build automatic irrigation systems using repurposed plastic pipes from shrimp farming.

Innovation

- Promotes circular economy by repurposing plastic waste from shrimp farming.
- Reduces water costs by up to 80% through innovative freshwater storage in canvas tanks.
- Codifies local knowledge and integrates a farmer-to-farmer knowledge transfer approach to develop sustainable solutions.

Replication potential

- Leverages a farmer-to-farmer model for organic scalability and sustainability.
- Easily replicable across the Mekong Delta.
- Utilizes social media platforms to share knowledge with other communities.

Funding snapshot

- UNDP-AFCIA grant: US$125,000 (one round of funding)

Investability	
Revenue	Projected $8000- $9000 from farmers
Financial innovation	A “collective” business model in which farmers simultaneously serve as end-users and ambassadors for water storage solutions: As customers, farmers are the end-users of the product and receive training on how to install and use similar water storage solutions. As ambassadors, farmers help other farmers understand the benefits of water storage solutions and how to install them.

ADAPTATION FUND Climate Innovation Accelerator

ADAPTATION FUND

To read their story, visit UNDP-AFCIA

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