



**Organization:** Livestock Development for Community Livelihood Organization (LDC)

**Location:** Takeo, Kampot, and Kandal provinces, Cambodia

**Solution:** Introducing cricket and chaya farming for enhancing local food production and sustainability in Cambodia

**Factsheet Period:** First round of UNDP AFCIA funding (18 months)



Cricket and chaya farming for enhancing local food production and sustainability in Cambodia @Ros Sokhom/LDC

Cambodia is greatly affected by seasonal droughts and flooding, with exceptional vulnerability to climate change due to the fact that 80% of its population resides in rural areas with many relying on agriculture as their primary source of food and income ([World Bank, 2021](#)). The Livestock Development for Community Livelihood Organization's solution focuses on cricket and chaya farming as a strategy to protect smallholder farmers' vulnerabilities to climate change impacts. Cricket and chaya farming are resilient to poor weather conditions and require less labour, water and land than traditional crops. The two harvests are also complementary: crickets provide frass that can be used to fertilize chaya, while the chaya plants can be used as cricket feed. This solution seeks to increase food security with nutrient rich alternatives, build capacity in local communities for climate-adaptive agriculture, and generate new sources of income.



## Key achievements

- Cultivated 12 tonnes of cricket and chaya
- Trained 200 new farmers in climate-resilient agriculture
- Established 100 cricket and chaya farms



## Adaptation benefits

- Greater community awareness of climate-adaptive agriculture
- More climate-resilient farming practices, adapted to current and future climate trends



## Funding snapshot

- UNDP-AFCIA grant: \$170,000 (first grant: \$60,000; scaling grant: \$110,000- under implementation- data still unavailable)



## Replication potential

- Strong market demand and partnerships drive sustainable cricket and chaya production, with the potential for wider expansion
- Farmers share inputs like cricket eggs and participate in training, promoting knowledge transfer and community support





### Innovation

- Introduced year-round, drought-resilient cricket farming as a new protein source in the region
- Developed floating cricket pens adaptable to seasonal flooding



### Social impact

- Cricket farming generates US\$71/pen every 45 days
- High-protein crickets and nutrient-rich chaya improve household diets

## Investability

Revenue per year	LDC is developing a revenue generating business model in partnership with agri-food enterprises (AFEs) as part of the scaling grant. The total income generation potential is up to US\$435,000 annually, generated by 100 cricket farmers with an average of 10 cricket pens per farm
Sustaining criteria	<p>UNDP-AFCIA's scaling grant funded trainings, farming operations, and a women-led producer cooperative for sustainable management of shared resources</p> <p>Connecting with potential AFE partners to manage supply chain and post-harvest sales</p> <p>Seeking to earn 5-10% of net profit from sales of cricket products by AFEs and women-led storage facilities</p>
Financial innovation	<p>Crickets produced by trained farmers adhere to EU food safety standards, ensuring high demand from customers and AFEs</p> <p>AFEs handle the postharvest processing of crickets and chaya, addressing marketing issues and ensuring sustainable production</p> <p>Women-led storage facility purchases crickets from farmers, stores them, and sells them to AFEs for safe consumption</p>
Expected return	<p>Women-led storage facilities at the community level earn 5% of net profits from the sale of fresh crickets and 5% from cricket frass sales</p> <p>Agri-food earns 10% of net profits from the sale of cricket feed, 10% from cricket-based products, and 10% from cricket frass sales</p>