



Australia Awards



ALUMNI GRANTEES: Oum Chan Mono

Master of Applied Economics
Adelaide University, AUSTRALIA, 2016
PhD in Economics, the University of
Waikato, New Zealand, 2023

IMPLEMENTATION PERIOD:
August 2025-March 2026



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Master of Rural Economics and
Sociology, Cambodia and Belgium, 2010

RESEARCH SIGNIFICANCE

- Provides empirical evidence on how digital financial literacy can support climate-smart agriculture adoption and improve food security among rural farming households.
- Demonstrates that digital capability alone is not enough; farmers also need training, extension support, social networks, infrastructure, and market access to translate digital inclusion into resilience gains.
- Fills an important empirical gap by linking DFL, CSA adoption, and HFIAS-based food security outcomes in one framework using data from 816 farming households across four provinces in 2023 and 2025.

RESEARCH QUESTIONS

To what extent does digital financial literacy enable rural farming households in Cambodia to adopt climate-smart agriculture practices, and does this adoption enhance household food security?

RESEARCH METHODOLOGY

Primary data collected from 816 smallholder farmers across four provinces in Cambodia (2023 & 2025):

Siem Reap: 201	Prey Veng: 271
Kampot: 162	Kampong Speu: 182

Empirical Models:

- Polychoric Principal Component Analysis (PCA)
- Logistic & Ordered Logistic Regression
- Generalized Structural Equation Model (GSEM)

RESEARCH TITLE:

The Role of Digital Financial Literacy in Facilitating Climate-Smart Agriculture Adoption and Enhancing Food Security: Evidence From a Repeat Cross Sectional Household Survey in Cambodia

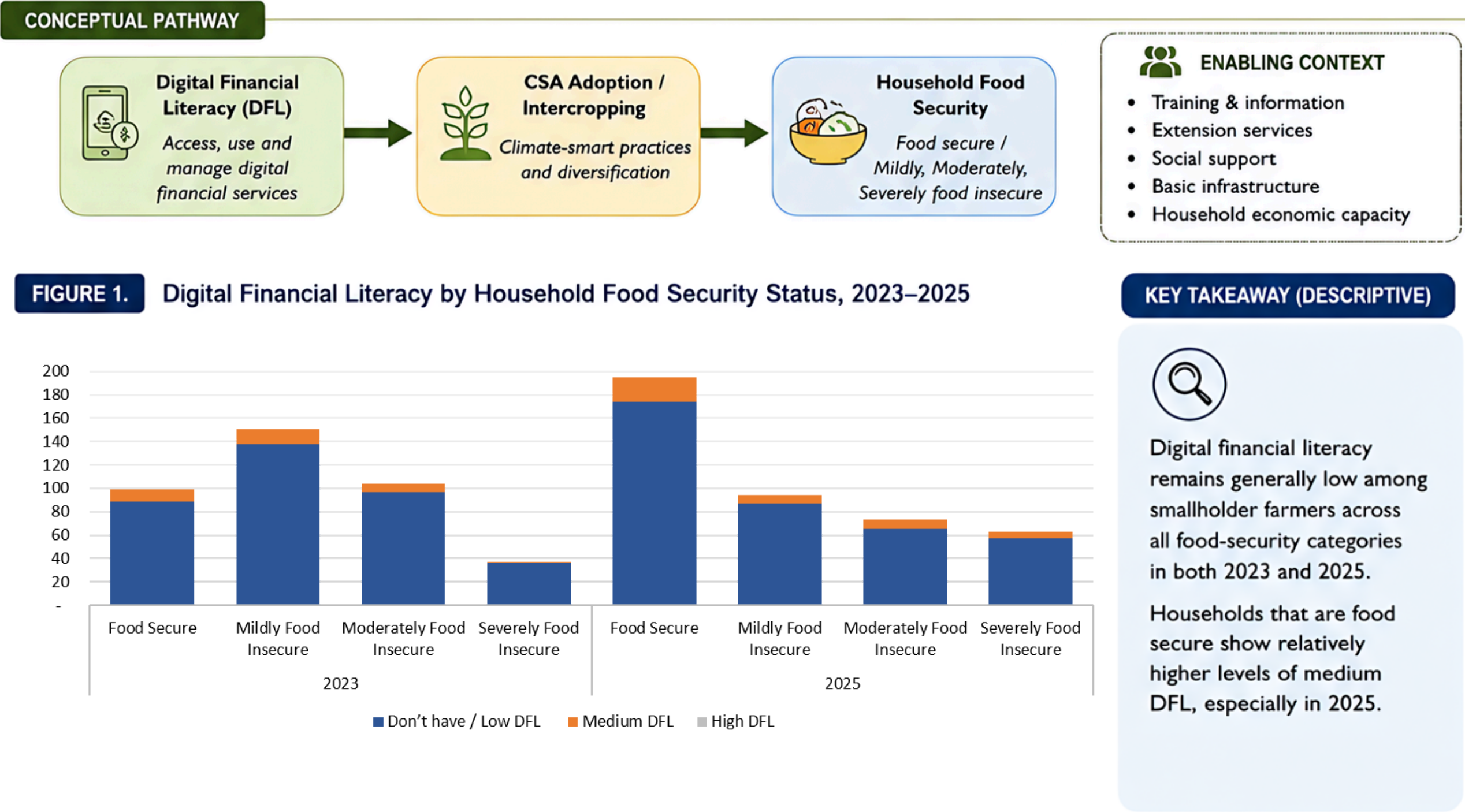


TABLE 1. Effects of DFL and CSA Adoption on Food Security using GSEM

VARIABLES	(1) FOOD SECURE	(2) MILDLY FOOD INSECURE	(3) MODERATELY FOOD INSECURE	(4) SEVERELY FOOD INSECURE
Mediator - Intercropping (CSA)	0.210	-0.448**	0.142	0.051
Head gender (1=Female)	-0.365*	0.605***	-0.112	-0.005
Head primary educ	0.496*	0.540*	-0.519**	-0.771**
Expenditure (log)	0.287*	0.138	-0.451**	-0.140
Member of association	0.692**	-0.685**	-0.158	-0.248
↓ CLIMATE CHANGE VARIABLES (KEY FOCUS) ↓				
Perceive climate impact	0.286***	-0.423***	-0.045	-0.209
Perceive support	0.056	-0.150*	-0.034	-0.338***
Perceive climate severity	0.317**	-0.647***	-0.111	-0.385**
Constant	-1.647	-6.827***	3.417**	2.176

Note: Robust standard errors used. Includes Province and Year FE. *** p<0.01, ** p<0.05, * p<0.1.

ABBREVIATIONS

DFL = Digital Financial Literacy
GSEM = Gen. Structural Equation Model
CSA = Climate-Smart Agriculture
HFIAS = Household Food Insecurity Access Scale



Prey Sdech, Kong Pisei, Kampong Speu



Tonloab Krolanh, Siem Reap

RESEARCH KEY FINDINGS

- Determinants of Digital Financial Literacy**
- Higher education, larger farm size, and association membership strongly increase DFL.
 - Older, female-headed, and larger households show persistently lower levels of DFL.
 - Exposure to agricultural information and climate awareness are crucial enablers of digital capability.
- Determinants of CSA Adoption**
- Adoption is primarily driven by **climate-risk perception**, agricultural training, and robust social support.
 - DFL is positively linked to CSA uptake, but functions best when bundled with extension services and peer learning networks.

Impact on Household Food Security

- CSA adoption helps households better cope with climate shocks and immediate food-access constraints.
- However, CSA has limited impact on the most severely food-insecure households, as structural and economic constraints overwhelm practice-level benefits.

KEY RECOMMENDATIONS

- Design digital financial literacy programmes around practical farmer needs such as receiving payments, purchasing inputs, saving, managing risk, and avoiding fraud.
- Link digital literacy with CSA training, extension services, demonstration farms, and peer learning.
- Target women farmers and female-headed households with tailored digital finance training, phone-based support, and access to farmer group.
- Strengthen agricultural extension, demonstration farms, farmer training, and peer-learning systems to improve CSA adoption.
- Promote community-based support mechanisms to help farmers translate climate awareness into practical adoption of CSA practices.