

## MRR INNOVATION LAB RESEARCH AT-A-GLANCE

# GHANA

Active MRR Innovation Lab research as of 9/21/22  
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### REDUCING POVERTY AMONG WOMEN BY STRENGTHENING THE SHEA VALUE CHAIN IN NORTHERN GHANA



The shea value chain in Ghana is dominated by women, from picking shea nuts to processing them into commodities for a growing global market. Shea presents a powerful opportunity to address poverty and food insecurity, but a lack of credit as well as informal repayment contracts may keep producers from improvements in households

welfare. This Feed the Future ALL-IN project tests credit and formal repayment contracts in Northern Ghana, which may increase the sector's profitability and overall shea supply while empowering women to receive the full benefits of their work.

#### USAID and Feed the Future Alignment

This project aligns with USAID Ghana Country Development Cooperation Strategy (CDCS) Development Objective 1, Broad-Based Economic Growth Accelerated and Sustained, and Development Objective 3, Sustainable Development Accelerated in Ghana's Northern Regions. The Government of Ghana and several development partners including USAID have expressed an overwhelming need to help bridge the north-south divide in economic outcomes and poverty.

**Lead Principal Investigator:** Fred Dzanku, Institute of Statistical, Social and Economic Research (ISSER) at the University of Ghana

**Project Partners:** Presbyterian Agricultural Services (PAS), META Foundation, Netherlands Development Organisation (SNV), Northwestern University, USAID Ghana

**Geography:** Selected districts in Ghana's five northern regions

**Development Innovation:** Training and pre-financing arrangements

**Commodity:** Shea

**Targeted Population:** Women shea producers and processors

**Dates:** 2021-2024

**Budget:** \$450,000 (USAID)

### PAIRING SMALL-SCALE IRRIGATION AND INDEX INSURANCE TO MANAGE RISK AND EXPAND ACCESS TO CREDIT IN NORTHERN GHANA



Drought is a constant threat across Sub-Saharan Africa. A new government initiative in Ghana is building rain-fed dams to irrigate small-scale farmer communities, but these dams may dry up during a severe drought. A Feed the Future ALL-IN research team is testing an innovative bundle of supplemental irrigation and a complementary index

insurance product to expand farmers' overall drought protection. This innovation could unlock investments that leverage the benefits of irrigation and better-managed risk,

**Principal Investigators:** John K. M. Kuwornu, University of Energy and Natural Resources; Francis H. Kemeze, African Development Bank

**Project Partners:** Ghana Agricultural Insurance Pool, Ghana Irrigation Development Authority, International Water Management Institute, One Village One Dam Initiative (1V1D), The Ohio State University

**Geography:** Ghana's five northern regions:

further improving long-term agricultural growth and resilience in rural communities.

### USAID and Feed the Future Alignment

This project aligns with USAID Ghana Country Development Cooperation Strategy (CDCS) Development Objective 1, Broad-Based Economic Growth Accelerated and Sustained, and Development Objective 3, Sustainable Development Accelerated in Ghana's Northern Regions, as well as in terms of its targeted crops of maize and rice. The project integrates nutrition and gender issues throughout and emphasizes improving the food security and resilience of vulnerable households. The project complements existing initiatives supported by Feed the Future and USAID that address agricultural productivity, food security, nutrition and access to credit and markets.

## THE IMPACT OF IRRIGATION ON IMPROVED PRODUCTIVITY AND MARKET VALUE FOR SMALLHOLDER FARMERS IN NORTHERN GHANA



In Ghana, high levels of poverty in parts of the country are due to lower rainfall during its single rainy season. This Feed the Future ALL-IN project measures the socio-economic impact of Ghana's government policy initiative dubbed "One Village, One Dam" (1V1D) implemented in Northern Ghana since 2017. The results provide

evidence on the most effective ways to ensure that national-scale investments in dams serving small-scale farming communities yield the greatest benefits for rural families.

### USAID and Feed the Future Alignment

This project aligns with USAID Ghana Country Development Cooperation Strategy (CDCS) Development Objective 1, Broad-Based Economic Growth Accelerated and Sustained, and Development Objective 3, Sustainable Development Accelerated in Ghana's Northern Regions, as well as with its focus on increasing productivity in arable crops and livestock as a means to reduce poverty and promote improved nutrition.

## DIGITAL COMMUNICATION TO REINFORCE NUTRITION AND HOUSEHOLD RESILIENCE IN NORTHERN GHANA



Nutrition is critical for children's growth and development in rural areas in Africa where families face the additional risks of climate-related shocks like drought. This Feed the Future ALL-IN project tests whether nutrition-related messages by mobile phone reinforce the impacts of earlier development programming on families'

nutrition and resilience. The overall goals are to investigate whether communication can ensure sustained resilience of rural households and whether gender makes a difference in who receives those communications. The study also analyzes the costs and benefits of nutrition-related messages to guide the future scaling up of such programs.

### USAID and Feed the Future Alignment

The USAID Ghana Country Development Cooperation Strategy (CDCS) has an overall goal of supporting Ghana to increase self-reliance with all citizens living a healthy and

Savannah, Northern, North East, Upper East, and Upper West

**Development Innovation:** Bundled small-scale irrigation and index insurance

**Commodity:** Maize and rice

**Targeted Population:** Small-scale farmers

**Dates:** 2021-2024

**Budget:** \$398,869 (USAID)

**Lead Principal Investigators:** Charles Amoatey, Ghana Institute of Management and Public Administration (GIMPA); Bilal Siddiqi, Center for Effective Global Action (CEGA) at UC Berkeley

**Project Partners:** Ghana Irrigation Development Authority (GIDA), Ghana Ministry of Special Development Initiatives

**Geography:** Ghana's five northern regions

**Development Innovation:** Small-scale irrigation

**Commodity:** Arable crops and livestock

**Targeted Population:** Smallholder farmers

**Dates:** 2021-2023

**Budget:** \$449,612 (USAID)

**Lead Principal Investigator:** Robert Darko Osei, Institute of Statistical, Social and Economic Research (ISSER) at the University of Ghana

**Project Partners:** Ghana National LEAP Secretariat, Image-AD, Northwestern University

**Geography:** Northern Ghana

**Development Innovation:** Interactive voice response for nutrition messaging

**Commodity:** Multiple

**Targeted Population:** Households with children under 5 years old

**Dates:** 2022-2024

productive life. Current inequalities biased against Northern Ghana require a systematic approach that takes these inequalities into account. This project aligns with CDCS Development Objective 1, Broad-Based Economic Growth Accelerated and Sustained, and Development Objective 3, Sustainable Development Accelerated in Ghana's Northern Regions.

## PROMOTING RESILIENT AGRICULTURAL GROWTH WITH AREA REVENUE INDEX INSURANCE IN GHANA



Agricultural index insurance can provide a critical safety net in developing countries for households at risk of losing their livelihoods to drought, flood and other climate-related shocks. However, existing insurance contracts overlook the risk of shifts in crop revenues. This project in Ghana is bundling loans to buy agricultural inputs like improved seeds

and fertilizer with a new index insurance contract that covers crop price and revenue risk. The team is measuring the bundle's impacts on farm and non-farm households in terms of agricultural production, food security and wellbeing.

### USAID and Feed the Future Alignment

This project aligns with USAID Ghana Country Development Cooperation Strategy (CDCS) Development Objective 1, Broad-Based Economic Growth Accelerated and Sustained, and Development Objective 3, Sustainable Development Accelerated in Ghana's Northern Regions.

**Budget**  
\$449,833 (USAID)

**Lead Principal Investigator:** Ashish Shenoy, UC Davis

**Project Partners:** The Catholic University of America, Chr. Michelsen Institute, Rhema Tidings, University of Alabama, University of Ghana

**Geography:** Northern Ghana

**Development Innovation:** Agricultural revenue index insurance

**Commodity:** Maize, soybeans, cowpeas and groundnuts

**Targeted Population:** Small-scale farmers and agricultural laborers

**Dates:** 2022-2024

**Budget:** \$749,941 (USAID)

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### ABOUT THE FEED THE FUTURE INNOVATION LAB FOR MARKETS, RISK & RESILIENCE

The Feed the Future Innovation Lab for Markets, Risk and Resilience at UC Davis develops and tests financial and market innovations that take the most promising agricultural tools for families in developing economies from the lab to the field.


Learn more at <https://basis.ucdavis.edu>

### ABOUT FEED THE FUTURE ADVANCING LOCAL LEADERSHIP & INNOVATION NETWORKS (ALL-IN)

Feed the Future Advancing Local Leadership, Innovation and Networks (ALL-IN) puts researchers at African institutions in the lead on collaborations with U.S. universities build actionable evidence for promoting resilience and inclusive agricultural growth.

Learn more at <https://liced-eval.org/all-in>

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FEED THE FUTURE INNOVATION LAB FOR MARKETS, RISK & RESILIENCE 

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