

**Linking Science to Action –
A World Bank / CGIAR Partnership
Scaling Innovations in Irrigation**

Katie Kennedy Freeman, Senior Agriculture Economist
The World Bank



Challenges:

Agriculture accounts for 70 percent of all freshwater withdrawals globally

High demand for water resources and reduced water availability puts countries in a situation of unsustainable water use.

Climate changes impact will exacerbate this situation if nothing is done.

The economic losses from climate change-induced water scarcity are expected to be very high.



Opportunities:

Investing in agricultural water could strengthen resilience to shocks, creates jobs and generates economic gains.




What do we do?

Improvement in Water in Agriculture needs to be designed based on the farmer's needs.

Need innovations in multiple sectors:

- Water (e.g., water-efficient technologies, mobilization of unconventional resources, information systems, etc.)
- Agriculture (e.g., Climate-smart Agriculture, Digital innovation, etc.)
- Energy sectors (e.g., renewable energy, biogas)



But how to scale innovation in
water and agriculture?

Water in Agriculture

The World Bank supports countries with sustainable intensification of agriculture through critical investments in irrigation infrastructure and key institutional reforms, which also help achieve Sustainable Development Goals (SDGs) on efficient use of water as well as on eliminating hunger.



AICCRA
Accelerating Impacts of CGIAR
Climate Research for Africa



**Accelerating agricultural
innovation to enhance the
resilience of African food systems
in the face of climate change**



World Bank Support for CGIAR: Past and Present

Historical partnership

- World Bank has traditionally held a leadership role in CGIAR. Vice President for Sustainable Development chairs CGIAR System Council.
- World Bank has contributed financing to CGIAR for five decades.

Scaling up

- At UN Climate Action Summit (2019), World Bank President David Malpass commits \$60 million of additional funding for CGIAR over three years.
- **Accelerating the Impacts of CGIAR Climate Research for Africa (AICCRA)** project is born (Board approval in December 2020)



AICCRA development objective and implementation philosophy

Project Development Objective:

To strengthen the capacity of targeted CGIAR partners and stakeholders, and to enhance access to climate information services and validated climate-smart agriculture technologies in IDA-eligible countries in Africa

Support to CGIAR Centers and partners will spur innovation and improve the capacity to generate and transfer knowledge, decision-making tools and validated climate-smart agriculture technologies.



AICCRA
Accelerating Impacts of CGIAR
Climate Research for Africa



AICCRA Project Components



Component 1: Knowledge Generation and Sharing: Development of Climate-informed Agricultural Advisory Services and Decision-making Tools (US\$ 17.4 million).

Support the generation and sharing of knowledge and tools to address critical gaps in the provision of agricultural climate services, enable climate-informed investment planning, and contribute to the design of policies to promote uptake of CSA practices.

Component 2: Strengthening Partnerships for Delivery of Climate-Smart Innovations in Agriculture (US\$ 13.2 million).

Strengthen capacity of key regional and national institutions along the research-to-development continuum to anticipate climate effects and to accelerate the identification, prioritization, and uptake of best-bet adaptive measures.



Component 3: Validating Climate-Smart Agriculture Innovations through Piloting (US\$ 23.7 million)

Close a critical gap in the innovation delivery pipeline by supporting the testing of promising technologies and validating their suitability for local conditions, so they can be promoted at scale by larger investment operations at national level.

AICCRA Project Geographic Focus

Six anchor countries with spillovers

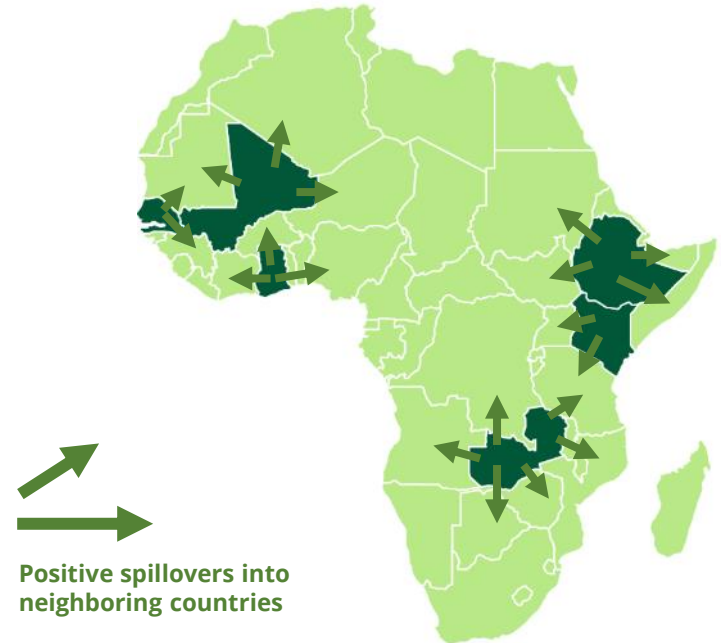
AICCRA to support CCAFS programs in three agro-ecological zones in Africa, among the most vulnerable in the world to the impacts of climate change:

1. **Western Africa and Sahelian drylands**
2. **Eastern Africa dry lowlands to highlands**
3. **Southern Africa drylands**

AICCRA activities concentrated in six anchor countries:

Ghana, Mali, Senegal, Kenya, Ethiopia, Zambia

- Strong political and financial commitments to adapting agricultural systems to in the face of climate change
- Well developed institutional capacity
- Strong capacity on the ground: Have mainstreamed CCAFS and CGIAR science into national agricultural plans and programs and strong interest in continuing collaboration
- Strong synergies with regional networks and institutions critical for spill-over effects and harmonizing.



AICCRA
Accelerating Impacts of CGIAR
Climate Research for Africa

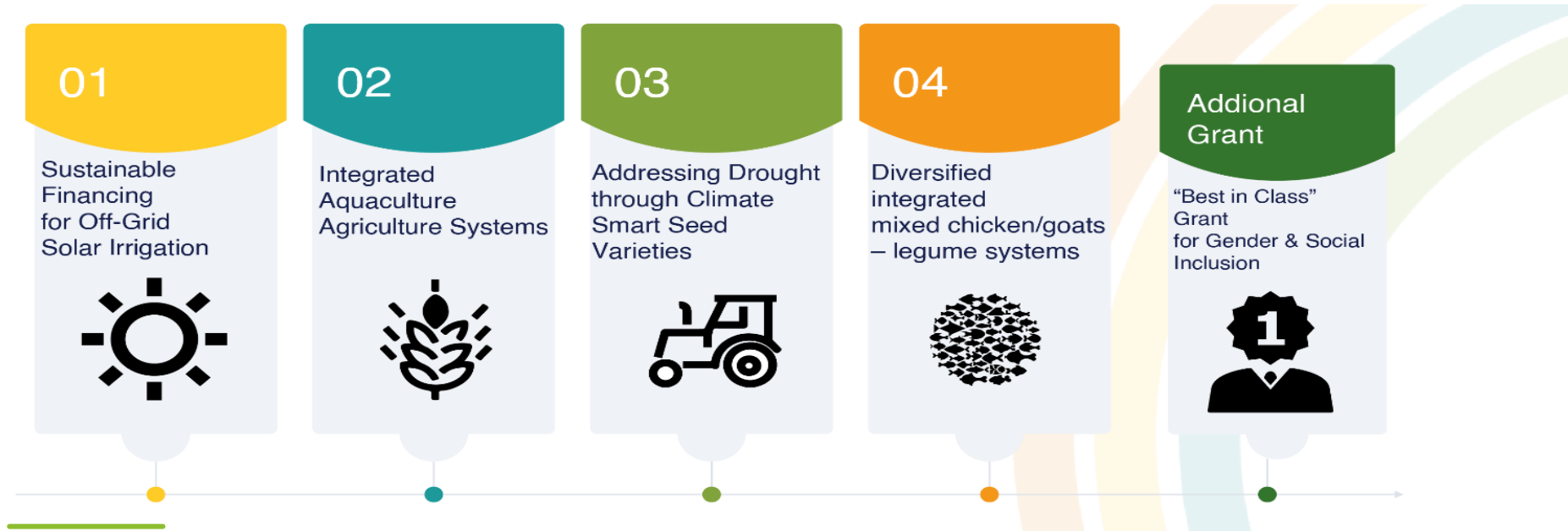


Zambia | Accelerator Program

- Fourteen Zambian agribusinesses have been selected by the *AICCRA Zambia* Accelerator Program to scale five 'bundles' of innovation that support climate-smart agriculture and climate information services in the country.
- The *AICCRA Zambia* Accelerator Program helps Zambian agribusinesses increase their impact on the broader ecosystem that fosters climate-smart agriculture in the country.
- The program works to improve investment readiness by widening farmers' access to investors and business partners.
- Through the Accelerator Program, AICCRA Zambia will reach 195,400 (65% of target) Zambian farmers by the end of 2022.

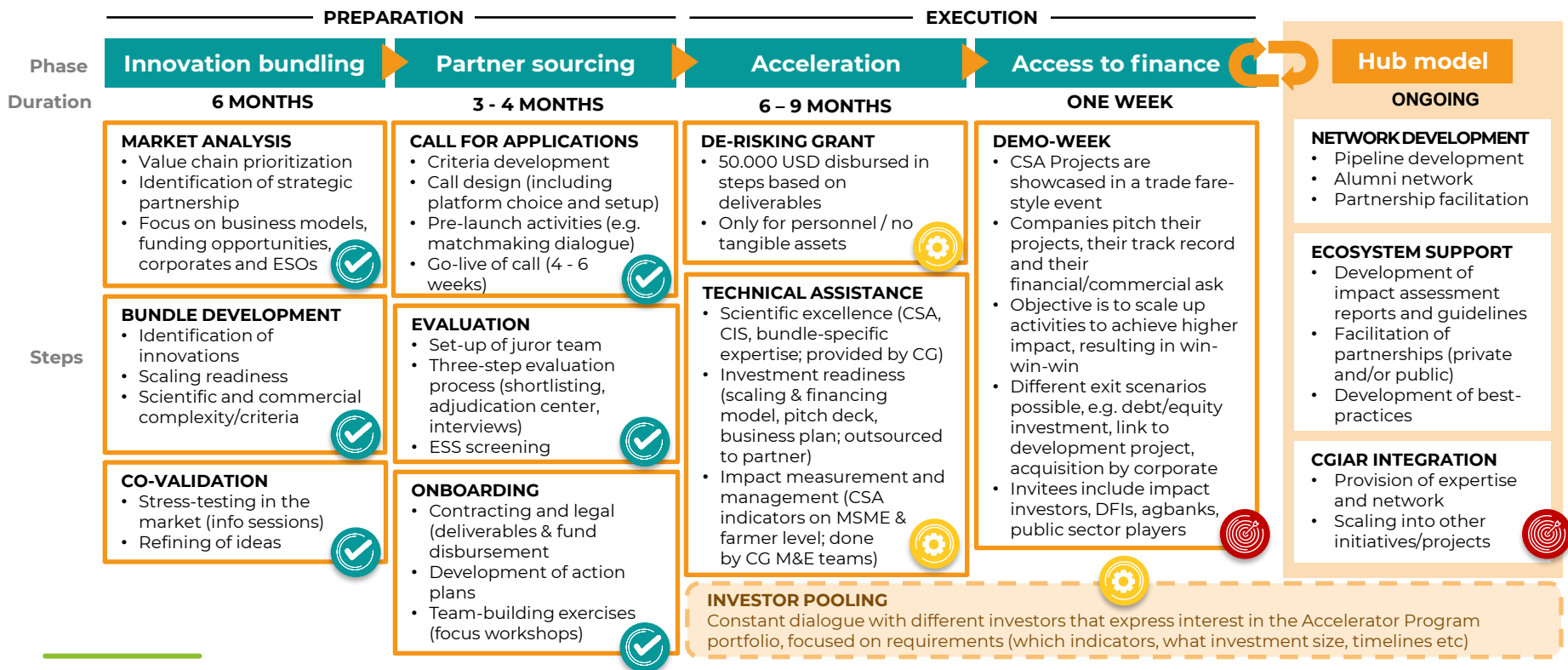


- The AICCRA Zambia Accelerator Program curates a cohort of 14 climate-smart agri-SMEs, clustered into five innovation bundles and working along multiple value chains and regions in Zambia.
- To achieve the ambitious target of reaching 300.000 smallholder farmers through the program, AICCRA provides 50.000 USD in de-risking grants per bundle as well as tailor-made technical assistance in the form of scientific advisory and investment readiness.



OVERVIEW OF THE AICCRA ZAMBIA ACCELERATOR PROGRAM

AICCRA has developed an end-to-end methodology to scale innovations and catalyse private investments into climate-smart agriculture



Bundle 1: Financing off-grid solar irrigation through digital financing model and one-stop-shop offer for smallholder farmers

The project uses big data to provide user-centric financial solutions to scale end-to-end irrigation technologies and services to >75.000 small-scale farmers in Zambia. The partnership scales innovation around off-grid solar irrigation as well as climate information services and agricultural best-practices. The objective is to sell solar pumps, as well as to disseminate meteorological and weather data as well as individualized advice on farming.

Partner



Description

FinTech startup providing financial services to individuals, small businesses & female micro entrepreneurs

Provider of products and services around household and farm electrification.,
Zambian distributor of "Futurepump"

Agriculture technology platform in Zambia providing market price information and connections to markets for smallholder farmers

Roles in the project

- Provide collateral-backed working capital to Vitalite to buy pumps in bulk from Futurepump
- Implement farmer-focused credit scoring system

- Offer standardized financial solution to farmers
- Provide assets as well as logistics network to deliver pumps

- provides market data on/access to >110.000 farmers in Zambia
- provides value-added services to customers such as climate information services and agronomic best-practices



And one of the things
that we really want to get out of this

**MUCHU
KAINGU** | CTO
(Lupya)

▶ 🔊 0:09 / 1:07

CC ⚙️ 📺 🗉

<https://drive.google.com/file/d/1qa5lcwn1sZu6fP7bw5HjZ1ih3TINpiFz/view>

Take Aways:

- **Innovative partnership between the CGIAR and World Bank through AICCRA is translating science into action**
 - **Investment in R&D and innovation is necessary, but this must be accompanied by the scale to have real impact.**
 - **Technical Assistance must accompany technology to achieve scale.**
-



AICCRA
Accelerating Impacts of CGIAR
Climate Research for Africa



<https://aiccra.cgiar.org/>

kkennedy1@worldbank.com

