

AICCRA FIELD TRIP GUIDE

Ethiopia

18 OCTOBER 2023



AICCRA
Accelerating Impacts of CGIAR
Climate Research for Africa



At a glance

The Lersha app innovation story



1

An AICCRA-led partnership with The International Maize and Wheat Improvement Center (CIMMYT), The Alliance of Bioversity International and CIAT and The International Livestock Research Institute (ILRI) developed an improved version 2.0 of the Ethiopian Digital Agro-Climate Advisory Platform (EDACaP) hosted by the Ethiopian Institute of Agricultural Research (EIAR).



2

Kulumsa Agricultural Research Center is one prominent center that collects the required data so that EDACaP 2.0 can generate seasonal agricultural climate and weather advisories for smallholder farmers on wheat, maize, sorghum, teff, and barley.



3

An API linkage allows Green Agro Solutions (GAS) to access agro-advisories from EDACaP 2.0 for the wheat value chain, including seasonal outlooks, crop variety choices, planting dates, times for fertilizer application, weeding options, likelihood of dry spells or flooding, and incidences of pests and diseases.



4

A 'user-centric' Lersha app bundles these advisories along with access to farm inputs, mechanization providers and financial services, helping farmers make informed decisions that improve productivity and—in turn—incomes and food security.



5

A Lersha call center is also made available to disseminate advisories and get feedback from users, while advisories are also disseminated using SMS and 'voice blast' technology. Ethio Telecom boosts cellular connectivity in Oromia and other regions.



6

GAS has established an extensive and growing network of agents across Ethiopia, who engage farmers in-person to provide access to the app and services.



7

Through the Lersha call centers, advice is provided while feedback is also received to continually improve or contextualize advisories.



8

These user-centric climate-informed advisories (bundled with inputs, mechanization, and financial services) have been made accessible to 229,192 smallholder farmers through 6,717 agents across several regional states.

1: This is no ordinary field trip

The AICCRA team in Ethiopia welcomes participants to explore two AICCRA project sites: Kulumsa Agricultural Research Center and the Iteya smallholder farmer community.

The purpose of the field visit is to showcase the innovations that have been developed by CGIAR Research Centers and scaled by AICCRA partnerships.

The main intentions of the field visit are:

- To witness examples of rural agricultural development being driven by the Kulumsa Agricultural Research Center, where smallholder wheat production is being made more resilient through research for development that informs public-private partnerships that scale climate-smart agriculture and strengthen climate information services.

- Visit smallholder farmers and farmers' associations benefiting from AICCRA partnerships, which are bundling and delivering digital climate advisories in the Iteya district of the Oromia region.

Participants will hear the experiences of stakeholders—ranging from smallholder farmers to national agricultural research centers—on how they benefit from access to climate information services and climate-smart agriculture provided by the International Maize and Wheat Improvement Center (CIMMYT) and Green Agro Solutions PLC through an AICCRA-supported partnership.

The visit serves as a learning opportunity for AICCRA colleagues and partners to understand how farmers, researchers, and policymakers gain insights into the best practices that overcome the challenges driven by climate change, particularly on-site implementation of solutions that include all in the community – particularly women and youth.

The agenda is crafted around a 'learning journey', offering opportunities for visitors to engage in meaningful conversations with smallholder farmers and community leaders.

This enables participants to hear the perspectives of diverse beneficiaries and local stakeholders who support smallholder farmers in Iteya and its environs, dubbed among the nation's main breadbaskets.



2: Kulumsa Agricultural Research Center



Credit:
Kulumsa
Agricultural
Research
Center
Facebook

The Kulumsa Agricultural Research Center is a center of excellence on wheat for East Africa (including Ethiopia, Kenya, Uganda, and Tanzania) and is mandated to research wheat, malt barley and highland pulse crops.

The center develops better technologies in the central wheatbelt region of Ethiopia to strengthen agricultural production and commercialization along select value chains in clustered districts (known in Ethiopia as 'Woredas').

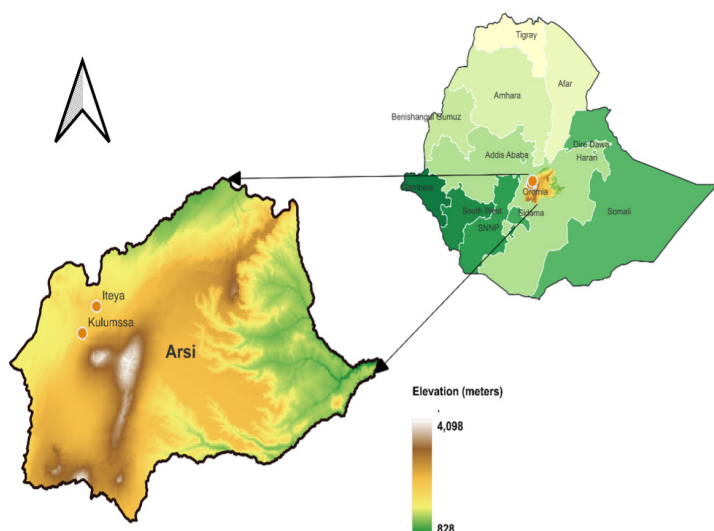
With AICCRA support, CIMMYT has been collaborating with EIAR to improve agricultural technologies while demonstrating to (and popularizing them with) smallholder farmers.

An AICCRA-led partnership between CIMMYT, The Alliance and ILRI developed an improved version 2.0 of the Ethiopian Digital Agro-Climate Advisory Platform (EDACaP ethioagroclimate.net) which is hosted by the Ethiopian Institute of Agricultural Research (EIAR).

Kulumsa is one of three prominent agriculture research centers that collect the required data so that EDACaP 2.0 can generate seasonal agricultural climate and weather advisories for smallholder farmers in wheat, maize, sorghum, teff, and barley.

The improved EDACaP 2.0 connects historical meteorological, soil and agronomic data with seasonal climate forecasts and crop model simulation outputs.

The Kulumsa center continuously evaluates and calibrates the advisories that are disseminated to farmers, and its designation as a center of excellence is in part thanks to this collaboration with CIMMYT, which is being scaled with AICCRA support.



3: Iteya smallholder farmer community



Within the Oromia state, the Iteya area boasts fertile land and a favorable agro-ecological zone, making agriculture the primary economic activity.

Smallholder farmers here are the lifeblood of the region's economy, cultivating cash crops like wheat but also an array of other crops like maize, barley, teff, coffee and various legumes.

Despite the importance of smallholder agriculture, farmers in Iteya face numerous challenges:

- Climate variability and change
- Climate extremes such as flood and extended dry spells
- Chronic and emerging crop pests and diseases
- Limited access to inputs and mechanization
- Limited access to financial services
- Difficulties in accessing markets
- Land degradation

To address these issues, an AICCRA-led partnership is using innovative decision support tools designed for smallholder farmers to turn climate information into actionable knowledge, by making accessible climate-informed agro-advisories that are 'bundled' with information on farming inputs, mechanization services and financial services.

The partnership between AICCRA and GAS used the 'LERSHA' app (lersha.com, Lersha meaning 'for agriculture' in Amharic) to provide a comprehensive one-stop-shop service to smallholder farmers in communities like Iteya.

A CGIAR team (CIMMYT, Alliance, ILRI) co-developed an Application Programming Interface (API) linkage that allows GAS to access agro-advisories on seasonal outlooks, crop variety choices, planting dates, times of fertilizer application, weeding, likelihood of dry spells or flooding, and incidences of pests and diseases from EDACaP 2.0 in the wheat value chain.

The 'user-centric' app bundles these advisories with access to farm inputs, mechanization providers and financial services, helping farmers make informed decisions that improve productivity and—in turn—income and food security.

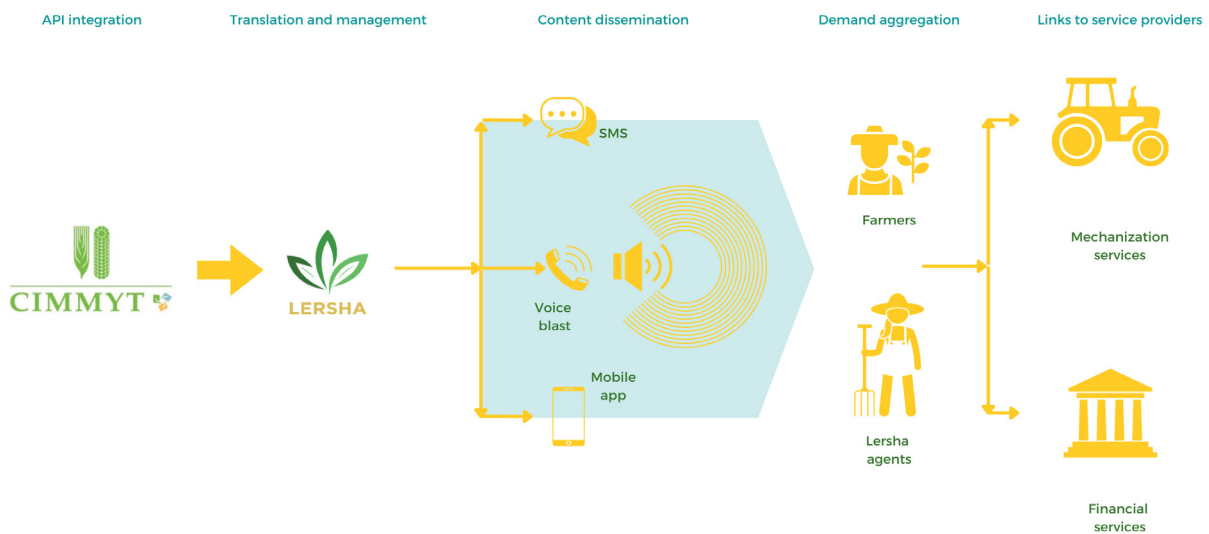
The app's agro-climate advisories and bundled services are disseminated using multiple channels. Given low levels of digital literacy in the region, GAS has established an extensive and growing network of agents across Ethiopia, who engage farmers in-person to provide access to the mobile app— which is available in different languages and is accessible offline— as well as the bundled services.

These agents are often young, tech-savvy graduates from agriculture extension colleges, who work alongside government development agents from the Regional Bureau of Agriculture.

A call center (7860 shortcode) is also made available to disseminate advisories and get feedback from users, while advisories are also disseminated using SMS and voice blast technology. The AICCRA partnership also worked with Ethio Telecom to boost cellular connectivity in Oromia and other regions as part of AICCRA's private sector capacity building efforts.

With AICCRA support, GAS trained thousands of agents along with hundreds of agricultural experts to make sure Lersha's agro-climate advisories are easily comprehensible for effective decision-making.

THE LERSHA MODEL



Lersha milestones through AICCRA engagement 2021-2023

# of Lersha agents			
Prior to AICCRA	Current status	AICCRA contribution	Contribution to growth (%)
88	1,007	598	57%

# of SHF			
Prior to AICCRA	Current status	AICCRA contribution	Contribution to growth (%)
20,660	105,611	47,144	55%

Employee size			
Prior to AICCRA	Current status	AICCRA contribution	Contribution to growth (%)
14	119	23	21%

Geographical expansion		
Prior to AICCRA	Current status	AICCRA contribution
Ethiopia 2 regions	Ethiopia 5 regions, Kenya	Ethiopia 4 regions

# service providers		
Prior to AICCRA	Current status	AICCRA contribution
11 OSS 5 MSP 4 FI	34 OSS 174 MSP 9 FI	19 OSS 52 MSP 4 FI

One Stop Shop (OSS)
Mechanization Service Providers (MSP)
Financial Institutions (FI)



Use of the Lersha app is improving the adoption of improved seed varieties across the regions where it is active.

A recent satisfaction survey revealed that 44% are very satisfied and 56% are satisfied with the usefulness of the tailored agro-climate advisories through the Lersha platform. A randomized control trial (RCT) impact assessment of the services is planned for 2024.

The AICCRA-led partnerships in Iteya represent a significant step forward in addressing the climate challenges faced by smallholder farming communities in Oromia and beyond.

This collaboration ultimately underscores the importance of climate services and other bundled services for climate-smart agriculture innovations and practices, which have the potential to transform the lives of smallholder farmers in Ethiopia in ways that foster food security and economic growth.

In total, **229,192 smallholder farmers have been reached** through the Lersha digital service, supported by a total of **6,717 digitally empowered extension agents** both private (1,007) and public (5,710) in Amhara, Somali, Oromia, Sidama and SNNPR regional states. *(as of 30 Sep 2023)*



4: TRIP ITINERARY

Time	Event	Facilitator(s)
05:45 - 06:00	All participants board buses for departure at ILRI campus	AICCRA Ethiopia team
06:00 - 9:00	Travel from Addis Ababa to Kulumsa. Brown bag breakfast on the bus.	AICCRA Ethiopia team
9:00 - 9:20	<ul style="list-style-type: none"> Kulumsa Agricultural Research Center (KARC) introductory briefing Environmental and social (E&S) safeguards briefing for site visits 	KARC team AICCRA E&S team
9:20 - 10:20	Interactive discussion with EIAR and CIMMYT scientists at field experimentation site	EIAR and CIMMYT team
10:20 - 11:00	Travel and stopover at nearby government seed multiplication site	AICCRA Ethiopia team
11:00 - 11:30	Travel from Kulumsa to Iteya	AICCRA Ethiopia team
11:30 - 12:00	<ul style="list-style-type: none"> Cultural welcoming reception at Iteya Lersha and CIMMYT briefing 	Lersha and CIMMYT team
12:00 - 13:00	Group discussion at Iteya farm site: <ul style="list-style-type: none"> Womens' community group Youth service providers Mixed community group Hitosa Farmers Union 	Lersha and CIMMYT team
13:00 - 13:10	Farmers' briefing	GAS team
13:10 - 13:40	Farmers' field visit <ul style="list-style-type: none"> Women-led community groups Mixed community groups 	GAS and CIMMYT team
13:40 - 15:00	Lunch break and Elders' blessing ceremony	AICCRA, Hitosa Union and community members
15:00 - 16:00	Travel from Iteya to Adama	AICCRA Ethiopia team
16:00 - 17:00	Refreshment stopover at Haile Resort in Adama	AICCRA Ethiopia team
17:00 - 18:30	Travel from Adama to Addis Ababa	AICCRA Ethiopia team



5. Environmental and social safeguards safety tips

1. Respect natural habitats: Avoid disturbing natural habitats like wetlands, forests, and water bodies. Do not collect plants, disturb wildlife, or disrupt ecosystems.
2. Stay on designated paths: Stick to designated routes to avoid trampling on crops or disturbing natural habitats.
3. Avoid disruption: Be mindful of the ongoing activities in the research centre or farmer's fields and avoid disrupting routine workflow.
4. Minimize waste: If possible carry reusable water bottles and containers to reduce plastic waste.
5. Avoid littering: Properly dispose of any waste you generate during the visit in designated waste bins on the field and in the buses. Ensure that you do not leave any trash or waste behind. Carry all waste with you and dispose of it properly.
6. Health and safety: Act in a way that ensures the health and safety of both visitors and local communities. Avoid any action that could endanger people's safety. If something doesn't feel right, trust your instincts, prioritize your safety, and report it to the designated E&S team. Keep personal belongings and equipment secure.
7. Sun protection: Use sunscreen, wear appropriate clothing, and stay hydrated to protect yourself from the sun's effects.
8. Respect local customs and traditions: Be aware of and respect local customs, traditions, and cultural norms of the farmers and communities we are visiting. Avoid any action or statement that could lead to disrespect or discrimination.
9. Engage local knowledge with respect: Respect the farming knowledge and practices of local farmers. Acknowledge the value of their farming knowledge and practices before offering any advice. When interacting with farmers, approach them with respect and courtesy.
10. Respect privacy: Obtain consent before taking photographs or recording any community member, their homes, or their personal information.
11. Prioritize local voices: Give priority to local perspectives and listen to the experiences and concerns of farmers.
12. Promote inclusivity: Ensure that interactions are inclusive, allowing different people to share their experiences and ask questions.
13. Offer support: If possible, offer to share any knowledge or experiences that could benefit farmers, and local communities.
14. Report any concerns to the AICCRA E&S team: Promptly report all concerns to the designated E&S team to enable them to initiate swift actions to address the issue.

What to bring and wear?

- Hat, sunscreen, and an extra t-shirt
- Comfortable shoes
- Insect repellent
- Necessary medications

Please note water bottles and snacks will be provided

6. Contact details

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7. Partners





Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) is a project that helps deliver a climate-smart African future driven by science and innovation in agriculture.

It is led by the Alliance of Bioversity International and CIAT and supported by a grant from the International Development Association (IDA) of the World Bank.

Explore our work at aiccra.cgiar.org

All pictures in the document courtesy of ILRI/Zerihun Sewunet and Green Agro Solutions PLC.



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