

SAIRLA Story of Change

Increasing the capacity of Ethiopia's Ministry of Agriculture to digitise its advisory and extension system

This Story of Change describes the NLA's contribution in 2018 and 2019 with regard to improved support to the Ethiopia's extension system to digitise its extension and advisory services and put in place a structure to coordinate related efforts. The success of the change process is important for SAIRLA's stakeholders and partners:

- It fills gaps in the pursuit of Ethiopia's extension strategy by developing structure and guidelines for digitising extension support in the country.
- It creates a structure for coordination of inputs and resources of various actors in the agricultural extension and advisory system.
- It creates an information and knowledge platform on agricultural extension and advisory system that is accessible to front line extension workers and smallholder male, female and youth farmers.
- The smallholder farmers access timely information and extension messages and services at less cost and at a convenient time.

The National Learning Alliance (NLA)¹ of the SAIRLA² programme in Ethiopia aims to engage decision makers across public and private sectors with evidence to help them address challenges concerning sustainable agriculture intensification (SAI) in Ethiopia. Farmers' inability to access timely and reliable information and extension messages represents a significant bottleneck to smallholder production and productivity in Ethiopia. The ability of the current extension delivery approach to address this problem is weak despite huge government investment in the extension support system. An information, communication and technology (ICT)-led extension delivery is emerging, however, but coordination of actors, resources, and approaches to respond to the various and changing demands of producers is currently inadequate.

Through membership of the Ethiopia NLA, senior extension professionals at the Ministry of Agriculture (MoA) and partner organisations have learned from the findings of the SAIRLA-funded joint research by Bioversity International and Mekele University, reflections made during the NLA meetings and ICT for extension services (ICT4EAS) learning sessions, and stakeholders dialogue and consensus during the marketplace on ICT4EAS event. This learning has resulted in the creation of a technical working group to coordinate and steer the digitisation of extension and a knowledge platform as a repository of information and extension messages and materials relevant to sustainable agricultural intensification and production.

In addition to supporting the formation of these structures and processes, SAIRLA support has also resulted in increased capacity of the MoA's Extension Directorate to better establish and engage with development partners engaged in agricultural extension and advisory services to smallholder farmers, women and youth. This has been achieved through the social learning described above and also by supporting the development and launch of an extension knowledge management web platform at the Agriculture Development Partners Linkage and Advisory Council (ADPLAC)³ level. In addition, SAIRLA supported MoA senior extension staff to showcase the Ethiopia's ICT4EAS initiative during the Africa Forum for Agriculture Advisory System (AFAAS) Africa Agriculture Extension Week (Ivory Coast, November 2019) leading to interest in it as a model at the continental level.

¹ <https://sairla-africa.org/what-we-do/learning-alliances/national-learning-alliance-ethiopia/>

² <https://sairla-africa.org/>

³ ADPLAC is composed of relevant public development, research, NGOs and private actors in agriculture sector.

1. The challenge

Ethiopia is one of the few African countries that invest significantly in its extension system. As a result, over 17 million farmers nationwide are served by a little over 14,000 farmer training centres (FTCs) and well over 60,000 development agents. However, despite the high farmer to development agent ratio and pluralistic agricultural advisory service provision, the coverage of agricultural advisory services is limited in its effectiveness – the number of farmers using extension and advisory services remains below 25 per cent. The Government of Ethiopia has fully recognised the nature of the problem and the need, in order to transform the sector, to improve farmers’ access to agricultural knowledge, information and technologies. One solution is to increase the currently limited use of ICT-based extension services to reach out to farmers.

The National Agricultural Extension Strategy has identified use of ICT as one of the nine pillars to transform the national extension and advisory system. The second pillar of the strategy states the importance of proper documentation and management of knowledge and information to enable farmers to access timely and relevant knowledge and information to maximise the potential to increase agricultural production and productivity. The strategy calls for a pluralistic extension delivery approach, which entails a network of ICT solution providers, extension service providers, managers, and decision-makers.

ICT-based technologies for delivery of extension services are emerging in Ethiopia but coordination of and communication among the relevant actors – ICT solution producers, public extension providers, and other collaborators in the system – have been weak.

3. The intervention

Cognisant of the above challenges, SAIRLA supported a research project led by Bioversity International and Mekelle University⁴ to develop an approach that will use ICT applications to enable household-specific targeting of advisory messages. At the same time, SAIRLA supported a multi-stakeholder social learning process facilitated by a National Learning Alliance (NLA) to increase understanding of and co-generate, share and facilitate use of research-based knowledge and tools to make informed policy and investment decisions on SAI and, in particular to enable smallholder farmers, particularly women and youth to benefit from agriculture production without harming the environment. The major actions undertaken by SAIRLA are highlighted below:

Social learning to understand ICT for extension issues and context: The need to develop an approach and structure for the extension and advisory services (ICT4EAS initiative) has emerged as a social learning outcome of both the SAIRLA research project and NLA. The research project has served as an entry point through which to engage decision makers on a specific example of an ICT for extension solution, while the NLA provided a platform for dialogue, learning, reflection and engagement between the ICT for extension solution providers and users. During the NLA general meetings and ICT thematic learning events, NLA members not only increased their understanding of the issue and the action required, but also recognised that they have limited knowledge about who is doing what as well as the lack of a structure to coordinate joint efforts with regard to use of ICT in the provision of agricultural support services in Ethiopia.

ICT for extension marketplace and stakeholder dialogue: A national level ICT for extension and advisory services (ICT4EAS) initiative with stakeholder dialogue and marketplace event was organised in April 2019 by the Ethiopia NLA in collaboration with the Extension Directorate of the MoA and other partners including FARM Radio International and Digital Green. The marketplace event had three objectives:

- i. Enhancing relationships and understanding about current and potential ICT solutions for the agricultural extension system in Ethiopia;
- ii. Establishing a technical work group around the ICT tools between the ICT providers, dealers, policy makers and investors; and

⁴ <https://sairla-africa.org/what-we-do/research/what-works-where-for-which-farmer-household-speci%EF%AC%81c-targeting-of-agroadvisory-services/>

- iii. Generating input for the development of implementation guidelines for the ICT pillars in the national agricultural extension strategy.

An event organising committee composed of core institutions including NLA team and led by the MoA Director of Extension was established. The committee members defined the event's objective and expectations, potential participants, required budget, and tasks of the committee (before, during and after the event).

The event was preceded by the launch of an event website <https://ict4eas-ethiopia.com/> to increase visibility and reach. On the day, 14 ICT solution providers used posters and other displays to present their products and a discussion was held with five panelists representing government, donor, private sector, research and NGO sectors. The event in total attracted more than 90 participants and was well received – initiating a process for networking among service providers and users of ICT for advisory services. The event was opened by remarks delivered by the Minister's advisor of the MoA and a keynote address delivered by the Programme Officer for Agricultural Advisory Services at the Bill and Melinda Gates Foundation (BMGF)⁵.

Support towards establishment of the technical working group for ICT4EAS: SAIRLA supported the drafting of the terms of reference (ToR) for the establishment of the Technical Working Group for ICT for extension. The draft ToR was enriched by feedback from NLA members. The NLA organised a workshop during which the key stakeholders endorsed the ToR, established the technical working group, and agreed on key actions.

Provision of external expertise: SAIRLA brought in external expertise highly conversant with ICT / web platforms and extension systems at national and continental levels. The external resource persons had supported the Ethiopia NLA and the MoA Extension Directorate in developing the ICT4EAS-Ethiopia web platform, training key stakeholders on the potential of ICT for extension, and smooth transfer of the web platform to an Ethiopian based entity for long term sustainability.

Capacity building of key stakeholders and the web manager: The NLA facilitation team organised training events for key extension professionals on the use of different ICT tools for extension (Google Forms, Ok Google voice tool, Google Translate, Google Drive cloud storage, Google Agenda, Google Map, WhatsApp, Facebook, Zoom.us). SAIRLA's external expert delivered the training. The regional extension directors from the MoA were also trained by the local web manager to gather content to be published on the ICT4EAS and ADPLAC platform.

Support to share experience and influence at a continental level: SAIRLA provided financial support to the MoA's senior extension experts to attend and presented the process and initial results of the ICT4EAS initiative at the AFAAS Africa Agriculture Extension Week 2019 that took place in Abidjan, Ivory Coast (November 2019). This has provided an opportunity to showcase the Ethiopian approach in digitising the extension system as a model that could learn from and provide learning to other models being used across Africa.

Obstacles and how they were addressed

A professional well versed both in web platform development and extension was not found locally. As a result, an external expert was hired to help recruit the web manager, provide training and coaching and transfer the website's management in country.

The ICT literacy level of extension professionals were very diverse and, for some, very low. To overcome this obstacle, orientation on use of ICT tools has been provided by the web manager and MoA ICT expert.

Key stakeholders

The key stakeholders involved in the change process were extension senior experts, managers and directors at the federal and regional levels. The extension director at MoA played a significant role in coordinating

⁵ Mr. Abdulsemed Ahmed, advisor to the MoA's Minister and Mrs. Kate Kuo, Programme Officer of the Bill and Melinda Gates Foundation (BMGF)

stakeholders, articulating the desired pathway for extension delivery, and championing the digitisation of extension services from within the Ministry. Additionally, ICT and extension professionals working in the NGO, research, private sector and media were involved in the change process.

4. The change (result)

The ICT4EAS initiative is an integral part of the National Extension Strategy. The engagement of all of the stakeholders, particularly the public extension professionals, in the ICT4EAS initiative has been strengthened. This is expected to positively influence how well ICT aspects are considered in two strategic documents, i.e. the extension roadmap and the extension implementation guidelines under preparation by the Extension Directorate in the short-term. ICT will hold a significant position not only in these strategic extension documents, but also in the operations of the Ministry's extension system in the long-term.

There have been significant changes in stakeholder capacity and behaviour, and in policy and investment processes as follows:

- Over 90 senior experts, decision makers, researchers, business people, and investors including 25 organisations, attended the ICT4EAS marketplace event. Through the event, they improved their understanding of available ICT technology solutions for agricultural extension and advisory services. According to evaluation results, those participants who reported improved understanding of 'a lot' or 'some' increased from 79 per cent before to 100 per cent after the event. Similarly, the ICT solution providers interacted and established networks with current and potential users of ICT solutions for advisory and extension services to farmers. According to the workshop evaluation result those participants who established networks and partnerships with other ICT4EAS participants increased from 71 per cent before to 97 per cent after the event. The event was pivotal in initiating networks among ICT solution providers, users, decision makers, and investors.
- A coordination structure to support the digitisation of agricultural extension and advisory services was identified as essential by participants to the SAIRLA supported initiative. An interim technical working group was set up to support the MoA Extension Directorate to develop ToRs for the establishment of a permanent technical working group on ICT4EAS that would fulfil that function. The technical working group reports to the Extension Director. The group is expected to provide inputs to the ICT for extension implementation guidelines and extension roadmap (under development).
- The digitisation of the web portal on extension and advisory services has been started within the Agricultural Development Partners Linkage and Advisory Council (ADPLAC). The interest of the staff of the extension directorate at the federal and regional levels was found to be high. Following the ICT4EAS capacity building training, the extension managers began uploading materials for training the development agents on the web portal. The portal will ultimately reach development agents and farmers with appropriate information and knowledge products to increase production and productivity.
- The ICT4EAS initiative which will become part of ADPLAC was recognised as one emerging model for many African countries during the African Agricultural Extension Week 2019. AFAAS is keen to support the MoA in promoting ICT for extension and knowledge management in the years to come.

5. SAIRLA's contribution to the change

SAIRLA's contribution to the change is rooted in the Ethiopia NLA's understanding of the problem, its ability to build the relationships of trust necessary and its facilitation of the social learning process that was the springboard for supporting change. The NLA facilitation team maintained from the very beginning an institutional embedding of the change process within the leadership of Extension Directorate of the MoA, whilst facilitating social learning among NLA stakeholders and partners. The social learning facilitated by the SAIRLA contributed to increased understanding, interest for collaboration, and cooperation among NLA partners at the individual and organisation level.

SAIRLA's NLA facilitators in Ethiopia contributed professional inputs to the drafting of the terms of reference for the establishment of the ICT for extension technical working group. SAIRLA covered the costs of workshops, the trainer on ICT tools for extension professionals and allowances for professionals engaged in

writing the ICT for Extension implementation guideline and an Extension roadmap. SAIRLA also funded the provision of external expertise where none suitable could be found in Ethiopia.

The Ministry of Agriculture has recognised the effort made by SAIRLA. In this opening speech at the 'Digital Learning in the Ethiopian Agricultural Extension System Symposium and trade fair' held 5th December 2019, the Minister's Advisor said:

"As you may know, a group of key stakeholders came together this year to host the ICT for Extension Agricultural Services workshop. Building on the success of that workshop, today's symposium and trade fair will focus on ICT solutions to support the capacity development of the agricultural extension system."

The change process has taken place during the time when the funding opportunity by the Bill and Melinda Gates Foundation to digitise Ethiopia's advisory services was on the making. All organisations in one or the other had bid for funding from BMGF. It was an opportune time to strengthen extension system in Ethiopia thereby increasing the value of SAIRLA support to make a difference.

6. Conclusions

Extension professionals and decision makers who attended the ICT4EAS marketplace and stakeholder event concluded that digitisation of extension delivery has the potential to transform, leading to a change in smallholder farmer production and productivity due to improved and better access to relevant information, messages, knowledge, and technologies.

The change process has progressed beyond expectations. The social learning process facilitated by SAIRLA's NLA team was one of the key factors in this success, as was the dedication and commitment of the decision makers involved. In this regard, it is worth mentioning the passion and interest of the Extension Director, Yenenesh Egu in supporting and moving forward the change process.

Another factor that led to success was the ability of the NLA (and the wider SAIRLA programme) to be responsive, flexible and move quickly to support and consolidate successes. For example, funding to the senior extension staff to attend the AFAAS meeting in short notice and by strategically reallocating budget from workstreams that were not progressing in Ethiopia to ones that had a clearer potential to effect change.

The SAIRLA programme ends in March 2020. Although it has been successful initiating change and supporting the establishment of structures and processes to root that change in national institutions, it will not be able to support the process further or ensure that the change is fully sustained.

7. Looking forward

In spite of SAIRLA's closure, existing partners and several alternative support mechanisms have indicated their commitment to ensure that momentum is maintained:

- The Ethiopia NLA facilitation team will continue to sit on the ICT4EAS technical working group to provide technical support and track further development of the change process. The International Livestock Research Institute (ILRI), as the host of the Ethiopia NLA, has expressed its interest in building on SAIRLA's work and continuing to support the working group.
- The ADPLAC digitisation work is moving forward with links to (and potential funding through) the African Forum for Agricultural Advisory Services (AFAAS).
- The Extension Director is very keen to build on her SAIRLA-funded attendance at the AFAAS conference in Abidjan, and is now a board member of AFAAS. This position will enable her to learn from others across Africa and to share Ethiopia's experience across the continent.
- SAIRLA partnered with the Capacity Development Support Facility (CDSF), a Canadian supported programme on capacity development for Ethiopia's Agricultural Growth Programme in the organisation of a Digital Learning for Agricultural Extension Symposium in December 2019. The CDSF organisers approached the NLA and stated that they would like to be part of the Technical Working Group and align their activities with it. The symposium planned was seen as a continuation of the SAIRLA-support work

in developing national capacity in mainstreaming ICT use for extension. CDSF is planning to pilot digital learning and interested to support and make use of the technical working group to leverage existing linkages and networks.

- Similarly, NGOs such as Farm Radio International and Digital Green have projects that aim to digitise agriculture and are willing to continue to support the change process for success.

8. Sources of Evidence

<https://sairla-africa.org/what-we-do/research/what-works-where-for-which-farmer-household-specific-targeting-of-agroadvisory-services>

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