



Theme: Resilient, Inclusive, and Sustainable Food Systems: Enhancing Collaboration to Scale Digital

Solutions

Conference Proceedings Report

7th & 8th November 2023 Nairobi, Kenya







The AgriFin Learning Event (ALE) convenes actors to share innovations and learnings in the Digital Agriculture ecosystem

- Small-scale food producers (SSPs) are pivotal to ensuring food security and sustainable economic growth in the Sub-Saharan Africa (SSA) region
- Despite their contribution to economies across the region, SSPs continue to face systemic constraints, including limited access to inputs, information, finance, and market linkages
- These systemic challenges to SSPs in Africa are exacerbated by limited public and private investment in the agricultural sector. Furthermore, women who account for ~70% of all small-scale production in SSA¹ receive limited tailored support, constraining their productive potential
- The growth of digital technologies provide a viable way to build producers' resilience by providing solutions such as capacity building and strengthened linkages with input and output markets as well as business development services like insurance. Further, these digital technologies are optimizing solutions that better understand women-specific challenges and inclusively link them to the needed services
- In recognition of the need to foster collaboration in developing digital agriculture, **Mercy Corps launched the**AgriFin Program to revolutionize how SSPs feed the world
- As part of its role, AgriFin has become the primary digital agriculture ecosystem convener in the region, and, in collaboration with its partners, hosts the AgriFin Learning Event (ALE) annually. The ALE brings together stakeholders who are focused on leveraging digital technology, to share solutions that improve food producers' productivity and livelihood



The 7th ALE's objectives



The overarching theme of the 7th ALE was **Resilient**, **Inclusive**, **and Sustainable Food Systems: Enhancing collaborations to scale digital solutions**

In line with the above theme, the Learning Event sought to achieve three distinct objectives:



 Highlight digital solutions and platforms that solve systemic issues SSPs face across their value chains



Highlight efficient and sustainable models to finance climate adaptations



Promote collaboration to scale digital solutions in the AgTech ecosystem in Africa





Event design

Link to detailed program



3 Anchor plenary

discussions featuring leaders from Government and the Global Digital Agriculture, Finance and Investments ecosystem



5 Presentation-focused <u>sessions</u>

consisting of insightful learnings from IDH FarmFit, Google Earth, Beanstalk, Agbase, 60 decibels, Busara, DAISI and J-PAL



Digital Climate Smart Adaptations, and Data

6 Breakout <u>sessions</u>¹ covering Financial Services, Gender, Advisory, Markets and Platforms,



1 <u>Marketplace</u> for innovators to showcase their solutions that aim to improve the livelihoods of small-scale producers



3 Field visits to Farm to

Feed, Savannah Circuit and DigiCow for ecosystem players to witness solutions at work in their unique contexts



1 Stakeholder roundtable

discussion to articulate solutions to root challenges including climate change





Attendance

By total participants:



443

Registered participants



302 Delegates and SSPs

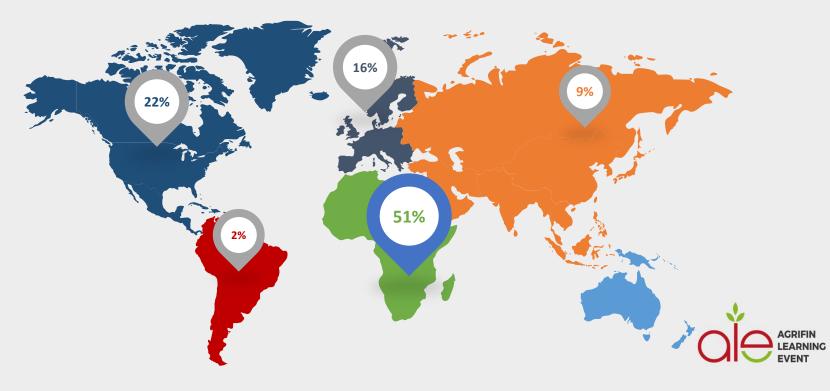


80 Speakers



Marketplace exhibitors

By geographical representation of organizations' primary location:





"The journey to change our ecosystem is a collective exercise which needs intentional collaboration...

Now we are seeing the Government playing a bigger role developing and enabling infrastructure and innovations. The pertinent question is how do we all collaborate better to enhance solutions that are inclusive to our producers and build resilience in our food systems?"

Sieka Gatabaki – Mercy Corps AgriFin Program Director





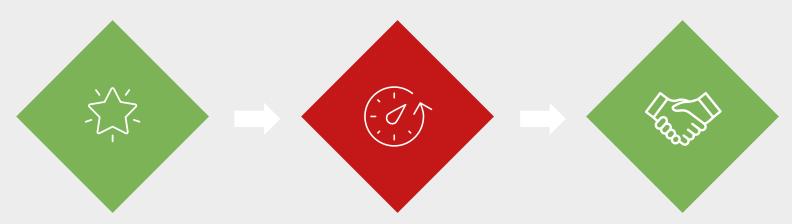
AGRIFIN







<u>Three</u> overarching messages emerged from the 7th ALE conference



[1] There are an increasing number of AgTech players and solutions, with ~10-18%¹ of SSPs in SSA using one or more products and services to improve their production and livelihood

[2] SSPs still have unmet needs across advisory, market linkages, and financial products. Further, climate change is leading to greater and ever-evolving needs [3] Quality collaboration is a crucial enabler to support innovations bridge gaps, and scale impact

"In 2019, we were worried about the adoption of digital products but **collaboration** with other players enabled us to improve the adoption from 3% to 10%." ~ Abrhame Endrias, Founder at Lersha

The subsequent pages break down each of these messages in detail



e elo lace Sprout

[1] There are an increasing number of AgTech players and solutions improving livelihoods of SSPs

- Over the past decade, the percentage of SSPs using D4Ag solutions has grown to 10 18% in SSA. These services have enabled SSPs to improve productivity by up to 170% and income by up to 60%.¹
- The 7th ALE showcased several solutions in its marketplace. These solutions can be broadly segmented into:











mgmt







Market

linkages²

Finance

insurance

access

and











Intersection of advisory and market >>









Zowosel





mgmt





Solomitro agriBORA

Intersection of market and finance >>

















D4Ag solution use cases³















[2] Despite their impact, SSPs have <u>unmet needs</u>, traced to gaps in data, finance, and partnerships affecting providers

Non-effective

coordination between

SSPs and

providers



Demand side: SSPs' unmet needs

Supply side: Digital solution providers' limitations



1. Advisory and information services

SSPs receive digital information that is either bulky for them to understand or too late into the season to make substantive changes

2. Market linkages

SSPs, especially women, struggle with online markets due to high entry barriers (agency), inconsistent demand leading to losses, and unregulated competition leading to unfair prices

3. Finance and insurance access

SSPs experience constrained access to digital finance products. The low access is due to inadequate collateral and non-robust credit histories

1. Industry information and data

Service providers have limited access to industry information and data – critical for informing decision making and product development/refinement

2. Partnership linkages

Providers have limited networks and channels to effectively engage government and other partners to identify points of complementarity

3. Financial support

Producers have constrained access to investment alongside high customer acquisition costs – primary challenge affecting 58% of solutions



[3] Quality collaboration is a key enabler to supporting innovators to bridge gaps and scale impact

• The ALE highlighted that **high-quality collaborations could help innovators to scale reach**, **enable greater access to relevant data and unlock more efficient business models.** The identified success factors for high-quality collaboration include:



 Alignment of objectives, particularly on the vision and intended outcomes of their shared projects



 Transparency on each collaborator's value proposition including resources and technologies



• Clear and binding collaboration protocols such as operational MoUs, and data and information sharing guidelines



access



[3] Examples of high-quality collaborations

Partnership description Reach and impact **Partnership** Issue area Entities share information on the • ~ 2.3 million producers in SSA Sprout platform. Afterward, Sprout have accessed agronomic, climate-**Advisory** works with producer-facing smart information from Sprout since and info **Sprout** organizations to adapt it into accessible 2021 services formats and languages before disseminating it to producers **WRS** • ~ 8.3 million SSPs in Tanzania Producers, through their cooperatives, **Solution** across 17 value chains have deposit commodities into the Tanzania -**Market** sold/stored commodities since 2015 designated storages. The issued linkages WRRB, receipts act as collateral to access SSPs have recorded price CRDB, loans from partner financial institutions increments of up to 200% TCDC1 ~ 100,000 pastoralists in Kenya ILRI has developed research, strategic **Finance** IBLI - ILRI, and Ethiopia have accessed and funding partnerships to scale its and FSDK, insurance policies since 2010 livestock-based insurance that offers insurance Equity,

payouts to pastoralists when the NDVI3

Notes: (1) WRS – Warehouse Receipt System, WRRB – Warehouse Receipt Regulatory Body, CRDB - Cooperative and Rural Development Bank, TCDC – Tanzania Cooperative Development Commission, (2) IBLI – Index-Based Livestock Insurance, ILRI - International Livestock Research Institute, FSDK – Financial Sector Deepening Kenya, SPARC - Supporting Pastoralism and Agriculture in Recurrent and Protracted Crises. The number of partnerships are continuing to grow. (3) NDVI stands for Normalized Difference Vegetation Index, essentially the level of greenness on the ground. Source: 7th ALE, Conference Proceedings, 2023

falls below a prescribed level

SPARC²



The insurance payouts have reduced

distress livestock sales by 36%



Areas of collaboration include enhancing SSPs' financing and revenue; and enabling data sharing, cross-learning and last mile connection

Financing

Developing and scaling of de-risking mechanisms such as guarantees and group lending models, especially for women SSPs to promote access to financing. <u>WRS example</u>

Multiple revenue streams

Exploring alternative revenue drivers that better funnel income to SSPs. Local carbon credit and sequestration markets that engage SSPs are a route to tap into climate funds. *CRU example*

Data collection and sharing

Developing a data aggregation system with standardized collection frameworks (incorporating gender and social inclusion contexts) and clear sharing protocols that safeguard information. Governments could play a critical dual role in contributing existing data and information and leading the development of standards. KALRO, ILRI and IDH examples

Crosslearning Enhancing cross-learning opportunities for the ecosystem, promoting collaboration and encouraging innovation and healthy competition. *IDH FarmFit Insights Hub example*

"A lot is happening where can build on existing data and approach, essentially building a sense of complementarity and healthy competition," ~ <u>Boniface Akuku</u>, D4Ag Specialist - <u>FAO</u>

Last mile connection

Deepening engagement with existing networks such as agronomists, off takers and local champions as entry points for service provision. For example, livestock off takers are existing connections to support input provision, practice adoption, and traceability. *ILRI example*



"Building Resilient, Inclusive, and Sustainable Food Systems requires collaborative efforts that encourage cross-disciplinary innovation and novel solutions...

By pooling financial and human resources through collaborative projects, we can efficiently tackle largescale agricultural challenges, benefiting developed and developing regions."

Phylis Njane – Deputy Director of Research, Ministry of Agriculture and Livestock Development, *representing*:

Hon CS. Mithika Linturi – Ministry of Agriculture and Livestock Development







The Kenyan Government is keen on deepening collaboration to continuously meet SSPs' evolving needs

- The Government acknowledges that D4Ag has immense potential to address the information, input and market linkage gaps impacting SSPs. In recognition of this transformative potential, the Government has cocreated several solutions:
 - National Farmer Register and Information Database 5.1 million farmers have access to Government input subsidies, and climate, agronomic and market information
 - Farm Input Services [e-Voucher] Farmers receive fertilizers through a voucher system at NCPB and KNTC depots
 - National Livestock Infrastructure and Services (NLIS) Provides a livestock market for traders and feed and leather facilities
 - Extension Services [Crop Selector] Advises farmers on the best crops to grow based on the land profiles
 - Agricultural Information Services [Farmers Call Centre] A toll–free number for farmers to receive climatesmart agriculture information
 - Kenya Agricultural Observatory Platform (KAOP)- Provides real-time 14-day weather forecasts for 1,450 wards through the Web, SMS, USSD, and Mobile
- The Government is keen on collaborating to improve the digital infrastructure and ecosystem, enabling the use cases to meet SSPs' evolving needs. Foreseeable collaboration areas include drafting legal frameworks for agriculture-related information sharing, expanded internet connectivity in rural areas, and lowering prices of smartphones through local manufacturing (existing factory in Machakos)





Leaders recognize that intentional collaboration is increasing SSPs' access to finance and enhancing productivity

Access to financial services in SSA has progressed through the adoption of ecosystem-wide approaches
to developing solutions and de-risking SSPs. More significantly, de-risking SSPs has been achieved by
incentivizing financial institutions through credit guarantees

"As of June 2023, IFC has taken an **ecosystem approach**, working with CRDB, Equity and others to catalyze ~ USD 4.3 Bn in loans and grants specifically for women. In such initiatives, IFC provides credits guarantees of up to 50% to enhance lending to women with limited collateral." ~ <u>Jesman Chonzi</u>, Regional Industry Manager at <u>IFC</u>

- Collaborating with Government and other value chain players is essential in extending the reach of
 financial institutions. For example, <u>CRDB (Tanzania)</u> has leveraged the capabilities of local partners by offering
 financing as an aggregator and allowing cooperatives to lend directly to producers
- **Digitization facilitates collaboration.** Key examples include the digital warehouse receipt system in <u>Tanzania</u> that records the produce quantity, price, sale progress, enabling producers, the receipt company, and CRDB to cooperate with transparency. Further, modern technology has enhanced the interoperability of digital service providers, ensuring customers have a diversity of options

"Digitization facilitates collaboration. Through the warehouse receipt system, we developed a tripartite agreement between the producer, CRDB, and the warehouse receipt company to enable producers to access digital financing options for the next planting season." ~ <u>Abdulmajid Nsekela</u> – Group CEO and MD at <u>CRDB</u>





The leaders believe that further co-creation is needed to deepen financial access for women, build SSPs' resilience and better engage Government

- Inclusion of women into financial services needs to be further deepened by leveraging gender
 disaggregated data. Despite the progress over the past decade, only 37% of women can access formal
 financial services. Historically, their access was constrained by biased data. Currently, gender disaggregated
 data on production and loan repayment data is exemplifying their case. Hence, the need to increase leverage this
 data as well as scaling credit guarantees to financial institutions lending to women SSPs
- Initiatives tackling the effects of climate change should use insurance as a buffer and build SSPs'
 capacity. Insurance remains a mitigator of the climate change effects and not a solution. Hence, capacity
 building of producers on soil health restoration and irrigation, among others, is the starting point for tackling the
 effects of climate change

"We all need to look beyond symptoms and into the root issues that, if solved, would transform SSPs' resilience and reinforce our food systems in the face of climate shocks." ~ Melaku Yirga – Regional Director at Mercy Corps

 The Government should focus on creating an enabling environment including developing underlying infrastructure such as roads and cold rooms. Moreover, the Government should leverage its convening power to coordinate ecosystem actors while allowing markets to operate independently

"Government should be the convener of partners. Their **convening power is substantive**." ~ <u>Dr. James Mwangi</u>

— Group CEO and MD at Equity Bank

Recording <u>link</u>. For more information, please contact: Collins Marita (cmarita @mercycorps.org)



While the ecosystem realizes the impact of partnerships, mistrust hinders collaboration

- Mistrust has often barred partnerships from achieving their intended outcomes. Banks have, at times, worked with players with limited transparency on their resources, capabilities, and financial position, often breeding mistrust that adversely affects the collaboration
- This mistrust has led to more robust evaluation criteria to safeguard investments. This comprehensive due diligence poses additional access to finance barriers for AgTech innovators and prolongs the overall partnership identification and onboarding processes
- Based on this experience, banks now look for specific characteristics in potential investees to boost the likelihood of collaboration success. Banks look for partners with i) context-specific knowledge, ii) trustworthy reputation, and iii) solutions with clear market linkages and a high degree of scalability and sustainability
- Further, data sharing and process alignment hold the keys to successful partnerships. Aligning processes
 ensures interoperability and even bundling of services. Additionally, it enables data sharing, which improves the
 decision-making quality
- There have been examples of successful collaborations where partners have successfully merged their unique value propositions to increase SSPs' access to finance:
 - <u>Tanzania's Warehouse Receipt System</u> has brought together the WRB, TCC, and CRDB to set up the receipt collateral system that increases access to loans for women and youth farmer groups
 - o <u>ILRI, SPARC and other partners</u> struck a collaboration to scale an index-based livestock insurance that offers mobile money payouts to pastoralists, enabling them to buy fodder and reduce stress sales

AGRIFIN LEARNING EVENT

Ecosystem actors have developed gender inclusion initiatives to address deep-rooted issues

- The session highlighted that women SSPs often face deeper constraints across the production life cycle due to:
 - Social cultural norms, where the more lucrative cash crop farming is seen as men's domain, and women are not considered for leadership positions
 - High entry requirements into value chains, i.e., to register as a tea farmer in a factory, one must have more than
 500 bushes
 - Financial exclusion, where women SSPs are less attractive borrowers due to lower ownership of productive assets.
 For example, less than 20% of women in ASAL regions own property or animals
- Three organizations (KTDA, BRAC, and Hello Tractor) highlighted their solutions to the issues above:
 - Social cultural norms i) BRAC and KTDA are leading gender sensitization training on the detrimental effects of norms, and ii) KTDA passed a policy to nominate women leaders to participate in decision-making alongside elected officials
 - High entry requirements KTDA is encouraging male farmers with over 10,000 tea bushes to transfer 3,000 bushes to their wives to promote their participation
 - Financial exclusion Hello Tractor has removed deposits for women in their PAYG financing mechanism for tractors





Further collaboration areas exist to deepen engagement with women in marginalized and non-marginalized settings

- Solutions to include women in leadership positions (addressing social norms):
 - Sensitizing men and women on social dynamics that hold back women from leadership
 - Women focused training to build soft skills such as confidence to engage in leadership
 - Leveraging institutions/mechanisms where women have power as a launchpad to push them into leadership positions in other organizations such as co-operatives, SACCOs or companies
 - Building and implementing a gender inclusion policy
 - o Providing incentives for greater gender inclusion in leadership, e.g., preferential pricing
 - Setting quotas for inclusion of women in leadership with non-compliance penalties e.g., lack of certifications
- Solution to further integrate women into value chains:
 - Leverage women agents to reach women in their localized settings and groups (chamas)
- Solutions to deepen financial inclusion of women SSPs:
 - Seeking partnerships to bundle Ag loans with insurance, savings, and inputs serving holistic needs of women SSPs
 - Embedding digital and financial literacy skills with digital financial products to effectively serve women SSPs
 - Reduce initial down payments which women often cannot afford, but can pay later after using machinery





SSPs are responsive to digital advisory and are willing to try commercialized products if they see sustained value

- Organizations are coming together under platforms such as <u>Sprout</u> to collaborate. They are all bringing different expertise, such as researchers creating content (<u>CGIAR</u>), organizations turning it into bitesize material (Sprout), and producer-facing organizations delivering it to the end user (<u>DigiCow Africa</u>)
- There is no one 'best' channel. SSPs have different needs, and some have multiple ways to consume content. Effective distribution requires multiple channels, such as SMS, WhatsApp, and YouTube
- SSPs have seen improvements following the adoption of digital advisory services. SSPs reported increased production and sales, which they attributed to enhanced information access, improving their decision-making. Nonetheless, there are issues they still face, including bulky content and late weather information
- SSPs are willing to transition to paying for advisory services. However, they need first to experience the improved benefits, which takes considerable time, often leading to past non-successful attempts
- Local 'Advocates/Champions' were identified as the vital proponents in spreading the message and recruiting other SSPs onto commercialized platforms
- The following paper establishes the factors influencing willingness to pay based on a recent study in Ethiopia





Digital solutions and Digital platforms both have unique value propositions in how they interface with SSPs

- Digital solutions¹ are often more defined and have historically high adoption rates (the detailed case for digital solutions):
 - Solutions are the starting point of any system. Afterward, the solutions are built up and integrated into platforms
 - Solutions tend to be more focused and defined. While platforms extend themselves over multiple use cases,
 which are at times spread too thin
 - Solutions have generally been more successful in adoption when compared to platforms. For example, out of 1,400 surveyed programs, 65% of successful programs were single solutions
- Digital platforms² provide holistic support to SSPs at subsidized costs (the detailed case for digital platforms):
 - Holistic, integrated platforms are better placed to manage complex SSP issues. By providing a one-stop shop, SSPs and service providers can engage easily over multifaceted and interconnected issues instead of filtering through multiple independent solutions
 - Platforms can leverage the cross-subsidizing effect of having different integrated services. This ultimately
 makes them more economical for service providers
- Overall, platforms and digital solutions are both essential. This is because they create value by enabling interactions amongst target users as opposed to linear processes of distributing and selling goods/services

Recording <u>link</u>. Documents <u>link</u>. For more information, please contact: Samuel Karanja (skaranja @mercycorps.org)





Across solutions and platforms, user-centric design, prior learnings, and collaboration are critical success factors

- User-centered design is critical for adoption regardless of whether it is a platform or a solution. SSPs are interested in accessing the end service access credit, inputs, or markets in a much better way than before. For example, Thrive Agric did a customer engagement exercise that informed their Agriculture Operating System (AOS) design. Presentation here
- Incorporation of prior learnings is vital in developing a consumer-relevant product. Operating in the SSA
 market is difficult, given the specific needs of consumers and limitations in infrastructure; hence, service
 providers need to better learn from past failings of products and successes to inform how best to tailor their
 offerings
- Innovation and strong collaborations are needed to scale products. No single player can successfully engage the market. Thus, service providers need to collaborate, leveraging their core value proposition to deliver scalable, economically efficient, sustainable products. FtMA is an example of a coalition that leverages six public and private organizations to strengthen markets and SSPs' productivity. *Presentation here*





Adopting blended finance, data sharing, and collaboration are crucial for enhancing climate-smart solutions

- There is a defined market need for digital climate-smart adaptations (DCSA). Sixteen million farmers in Kenya have experienced and will continue to face two or more climate hazards (drought and flooding). The DSCA solutions can reach up to ~ seven million farmers in Kenya who have access to mobile connectivity
- The ecosystem has recently observed an influx of DCSA solutions and collaborations. Examples include <u>Cropnut's</u> soil
 mapping technology, <u>FAO's</u> Water Productivity Open-access Portal, and <u>Acorn Rabobank's</u> marketplace for carbon
 sequestration in agroforestry
- Despite the influx of innovations, key challenges limit their scale and adoption amongst SSPs. AgTech startups face a
 significant finance gap, only accessing 14% of total climate tech funding, severely impacting their R&D capability. These
 challenges are coupled with demand side issues such as SSPs' high barriers to entry into the carbon markets due to
 certification and monitoring costs, leading to a mismatch where the AgTechs cannot deliver their solutions to market
- Notably, there are opportunities in finance, data, and policy to scale the expansion and reach of DSCA solutions:
 - **Finance** Approaches such as blended finance and alternative risk reduction mechanisms reduce the cost of capital by distributing risk in the ecosystem, hence, enabling AgTechs to access more favorable investment capital
 - Data Data sharing is key to enhancing the R&D potential of AgTechs, enabling them to develop solutions and complementary services that are relevant to target markets
 - Government collaboration Solid partnerships with the Government will enable private AgTechs to co-exist competitively. For example, collaboration on subsidy fertilizers will enable SSPs to access affordable inputs from the Government, which AgTech players have profiled as the best products for respective geographical profiles
- The session referenced a <u>report by Climate KIC and Briter Bridges</u> that profiles the Climate Tech players and provides further information on how blended finance and data sharing can enhance DCSA solutions

Recording <u>link</u>. Documents <u>link</u>. For more information, please contact: Lavender Apollo (lapollo@mercycorps.org)

The AgTech ecosystem needs systems and protocols to enhance data sharing in line with protection guidelines

- Data sharing has significant benefits, including a reduction in collection costs. For example, the collected farmer profile data by the World Bank and KALRO can reduce up to 60% of costs
- Recent rules on data handling are limiting sharing in the ecosystem. Previously, actors would freely share farmer data, but consent is now required to share the information with third parties. These regulations have inadvertently limited sharing, impeding collaboration and quality of decision-making

Potential solutions and considerations include:

- Financial services players could set up or scale data aggregation platforms to optimize sharing. This system
 will enable actors to contribute, and access needed data to inform interventions. For example, there are vast credit
 history patterns that telcos could share with banks. IDH FarmFit recently launched the <u>Insights Hub</u>, a platform to
 share data on smallholder-inclusive business models and could inspire the formation of data aggregation hubs.
 Further, <u>JoinData</u> is an example of a platform that enables Ag data sharing only for authorized parties, safeguarding
 user data from unauthorized entities
- The Government could build simple, understandable data-sharing frameworks. These protocols will promote data sharing between private and public sectors while considering safeguards to protect users' data.
- Data collectors should proactively embed the social-cultural context of rural women during collection to
 enrich data sets. This includes ringfencing women-only training to boost attendance and engaging them in the midmorning or afternoon since they prioritize household work in the morning

"Rural women involve their husbands for consent when service providers seek to collect data from them. Hence, there is a need to be creative in the processes." ~ Zilla Arach - Chief Product Officer, EzyAgric

Recording links: <u>part 1</u>, and <u>part 2</u>. Documents <u>link</u>. For more information, please contact: Emmanuel Makau (emakau @mercycorps.org)







AgTechs need to incorporate internal adjustments to attract investments

- 66% of AgTech's and MSMEs' financing needs are unmet, translating to an <u>annual funding gap of USD 106</u>
 <u>billion</u>. This is because investors view the agricultural market in developing countries as risky due to unpredictable seasons, low margins, and limited collateral.
- On the demand side, the panel identified adjustments for AgTechs and MSMEs to incorporate to unlock and attract investments:
 - Pre-investment support and technical assistance Many African-based entities have not reached the "right" scale and are not visible to more prominent investors. Therefore, there is a need to ensure they get the proper TA support
 - Corporate governance Setting up robust corporate governance, i.e., internal structures and value systems, is critical to showcase a credible level of stability
 - Product packaging There is a need to contextualize products and capital structures to ensure suitability for target groups and to get the "right type of capital"
 - Impact-based models More investors are placing impact at the center of their evaluation criteria, anchored on the understanding that depth of impact is crucial beyond scale. For example, 82% of funding in Africa originates from donors and sub-commercial funders focused on impact, compared to 6% in India
 - Climate focus: Agriculture is significantly impacted but contributes to climate change. There are opportunities
 for organizations seeking funding to frame their business cases with a climate lens to access climate-related
 financing





In the closing panel, ecosystem leaders emphasized the need to deepen collaboration to transform smallholder farming from a way of life to a thriving business

- Partnerships thrive where there is trust and complementarity. Collaborations should be structured in a way
 that the partners can leverage each other's strengths and match commitment, ultimately deepening trust
 Identified opportunity areas for collaboration include:
- Scaling existing solutions in the market. SSPs have solved most challenges, albeit in context-related ways. Government, private sector, and development partners need not reinvent the wheel but focus on scaling the existing solutions. For example, in Kinangop, SSPs have a car-hailing and pooling system among themselves; therefore, it would not be as additive to reinvent another transport system
- Incorporating diverse farmer profiles in design. Several failed solutions took a blanket approach in their design, presuming all farmers have the same profiles. Hence, segmenting of farmers is key in determining which solution fits which group and the dynamics around adoption
- Elevating advisory to involve actionable steps. Agro-knowledge should be complemented with action plans for farmers. For example, farmers need actionable agronomic practices/steps to supplement the weather information they receive







Nudging farmers to adopt digital services using humancentered design

Report link. Recording link.

Context/ rationale

- In collaboration with the Gates Foundation, Busara is running a program on understanding barriers limiting farmer uptake of digital services and designing solutions to drive the uptake
- Their approach has been centered on nudging farmers and extension workers to adopt digital services. Examples of successful nudges include: i) social prestige awards to farmer group leaders, ii) timely SMS reminders to farmers, and iii) availing farmers with fertilizer vouchers

Key takeaways

- Nudges can change behaviour. They make it easy for farmers, extension workers, and other stakeholders to adopt digital services by removing key barriers
- Effective nudges are rooted in evidence. They should be designed around the realities and contexts of target populations
- · Human-centred design methods can be used to inform these realities resulting in the most effective solutions







Randomized evaluations for digital and bundled agricultural services

Report link. Recording link.

Context/ rationale

- Abdoul Latif Jameel Poverty Action Lab (J-PAL) and Center for Effective Global Action (CEGA)
 launched the Digital Agricultural Innovations and Services Initiative (DAISI)
- **DAISI** generates a rigorous evidence base to carefully identify how and whether digital tools and bundled approaches improve outcomes for small-scale producers

Key takeaways

- Why is Randomized Evaluation important? Randomized Evaluation is an important tool in showcasing the causes of impact, which helps organizations attribute impact to specific interventions rather than other factors
- When is Random Evaluation useful? Randomized Evaluation is the right tool to leverage when resources are invested in a new program without existing evidence of its impact
- For example, <u>Sauti EA</u> did a random evaluation to assess impact of their trade information platform. The evaluation showed that women increased profits by ~18% and deepened cross-border trade
- Bundled programs are increasingly helpful in today's context since they can address multiple constraints facing smallholder farmers
- CEGA is open to partnering with organizations to incorporate Randomized Evaluation









Learner impact assessments: Experiments and lessons

Report <u>link</u>. Recording <u>link</u>.

Context/ rationale

- 60 Decibels has two impact assessment products:
 - Lean Qualitative Impact Protocol (Lean QUIP) a qualitative tool that gathers evidence
 of an organization's impact through narrative causal statements. Essentially, enabling
 organizations to i) validate their theory of change, ii) isolate causal attribution of impacts to
 an intervention and iii) allow beneficiaries to share experiences in a credible manner
 - Lean Evaluation a qualitative tool that quantifies the benefits of solutions to farmers livelihood outcomes

Key takeaways

- Keeping questions simple and relatable during data collection ensures farmer engagement and quality responses. Utilizing strategies such as anchoring timelines on popular calendar times such as Easter holidays makes it easier for farmers to recall and provide clear responses
- For the digitization of agriculture to be successful, it must start from the point of contact with farmers. Some service providers do not have contacts of farmers, which presents a barrier when conducting follow-ups or collecting data, thereby hindering digitization

AGRIFIN LEARNING EVENT

60 Decibels panel survey: The demand-side view of digital agriculture

Report link. Recording link.

Context/ rationale

- 60 decibels is conducting a panel survey to gain farmers' views on digital agriculture.
- The three-phase survey is being conducted in 39/47 counties in Kenya: i) Post-planting (July Aug 2023), Post-harvest (Nov Dec 2023), and Post-selling (March April 2024)
- The survey targets 2,600 farmers, of which ~50% are female

Key takeaways

• The early results of the survey are:

- 18% of farmers use a digital information service provider, of which 59% directly use mobile phones to access the information
- 57% of farmers accessing digital information stated that they believed the advice was very trustworthy
- Many farmers state that digital information arrives late at the planting season
- Face-to-face interaction with farmers is still key for successful engagement

Next steps

• 60 decibels is looking for up to 24 digital farmer service providers to partner with on a fully funded farmer insights research. Qualifications: i) Organizations offering farmer services digitally, ii) Operations in Kenya, Nigeria, Ethiopia, and India, iii) Have at least 750 phone numbers of farmers

60 _ decibels







Earth Engine: Machine Learning and Artificial Intelligence

Report link. Recording link.

Context/ rationale

- Google Earth Engine is a geospatial data processing and analytics service powered by Google Cloud Platform. The service includes climate and weather, satellite imagery, geophysical data (terrain and land cover maps) stretching up to 40 years
- The Engine has multiple use cases, including i) Climate risk understanding climate risk exposure for operations (e.g., flood, wildfire, drought), ii) Protecting Natural Resources enabling sustainable forest management and monitoring land cover change and climate events response, iii) Sustainable sourcing enabling global supply chain transparency and traceability to footprint

Key takeaways

- The use of Al is more effective in mitigating the effects of climate change compared to traditional methods. Taking a use case of floods, the use of Al is 50% more effective as an early warning mechanism compared to the manual system of physically measuring water levels
- There is a need for investing in human resources on artificial intelligence. The current talent pool for AI is limited as there are less than 10,000 AI experts globally. This is critical given the potential impact that AI, machine learning, and earth engines can have on agriculture and smallholder farmers







IDH FarmFit: Insights Hub Launch

Report link. Recording link.

Context/rationale

- Limited data and evidence impede decision-making, resulting in both ineffective and underinvestment in smallholder agriculture
- Against this context, IDH launched the <u>FarmFit Insights Hub</u>. The first resource of its kind, the FarmFit Insights Hub provides insights, promoting a rigorous understanding of how smallholder-inclusive business models can deliver positive outcomes for businesses and farmers

Key takeaways

- The insights hub has insightful analyses on i) Service delivery cost per farmer, ii) Direct cost recoveries from services and iii) Farmer value creation. All these data points are broken down to illustrate last mile delivery, scale, target group and type of service provider
- IDH is looking for partners to participate a new round of data collection exercise beginning in 2024









State of the Digital Agriculture Sector in Low- and Middle-Income Countries

Report <u>link</u>. Recording <u>link</u>.

Context/rationale

• The landmark State of Digital Agriculture (D4Ag) report covers: i) In-depth analyses of the latest state of funding and investment, gender and social inclusion, and digital climate-smart agriculture landscapes, ii) Detailed regional insights, and iii) Tangible and quantitative future outlooks and sector's projections by 2033



- D4Ag solutions have amassed upward of ~50 million active users, equal to ~ 10% of smallholder farming households in LMICs. Of these users, females account for only 26%
- LMIC regions had seen the deployment of >\$13 billion in funding and investment for AgTech – about 1/3 of the global total. ~ 50% are operating at or above break-even
- Seven key challenges exist in the ecosystem: i) Disconnected knowledge sharing and collaboration network, ii) Uncertain financial viability, iii) Poor quality of physical and digital infrastructure, iv) Shortcomings in user engagement, v) Constraints on climate-smart D4Ag deployment, vi) Persistence of gender inequality and social exclusion, and vii) Limited quality of impact measurement
- Recommendations include: i) Support the formulation of climate-smart D4Ag policies, ii) Invest in capacity building, iii) Sustain and diversify funding, iv) Accelerate development of infrastructure to support D4Ag, v) Foster collaboration, and vi) Hone in on end-user needs



BEANSTALK





Agbase launch

Report link. Recording link.

Context and main features

- Agbase is an ecosystem-building initiative to support the AgTech ecosystem in sub-**Saharan Africa and beyond**. It is funded by BMGF and delivered by Briter Bridges and AgriFin
- Agbase will promote a standardized impact metric system to track the solution-level impact that can be adopted by innovators and funders. It intends to drive increased coordination among sector stakeholders within and across regions through: i) Being a sector unifier, ii) Hosting targeted events, iii) Driving towards sector-level goals and iv) Spotting market opportunities
- Main parts of Agbase include i) Core data and intelligence platform, ii) IMM, and iii) Engagement and coordination

Next steps

• Agbase is looking to start recruitment for key roles i.e., Program manager and Engagement officers. Interested parties should reach out to Matt Shakhovskoy (Director, ISF Advisory)











Marketplace: Solutions and platforms at work (1/5)

Link to detailed information

The ALE marketplace provided an opportunity for innovators to showcase how their products and services solve specific systemic issues, building small-scale food producers' resilience and productivity. The organizations participating in the marketplace are listed below:

Day 1:



Sprout partners with Farmer Facing Organizations (FFOs) to deliver curated expert and scientific content and real-time services that directly address the challenges faced by small-scale farmers



Acre Africa is a risk management solutions designer linking stakeholders to localized solutions such as insurance and climate change adaptation strategies to reduce agricultural risks



Zowasel has built an interactive platform that leverages technology and data science to connect value chain actors and farmer interfacing organizations for increased productivity and earnings



<u>Hello Tractor</u> is leading a mechanization service revolution in emerging markets.



The FarmFit Insights Hub promotes the understanding of how smallholder-inclusive business models can deliver positive outcomes for businesses and the farmers with whom they work.



<u>Savanna Circuit</u> is a leading engineering enterprise revolutionizing agriculture through transformative mechanization, renewable energy and deep tech solutions





Marketplace: Solutions and platforms at work (2/5)

Link to detailed information

Day 1:



<u>Family bank</u> supports agriculture through end-to-end process called value chain financing



The Agricultural Information Exchange Platform (AIEP) initiative aims to leverage AI and language technology to improve access to information for smallholder farmers in Kenya and India.



CGAP is a global partnership of more than 30 leading development organizations that works to advance the lives of people living in poverty, especially women, through financial inclusion.



<u>Hoina + Livestock247</u> offers health care to pastoralists; Animal identification, and traceability; Financial inclusion, and Advocacy



The Digital Agrifood Collective exchanges learnings and align strategies

exchanges learnings and align strategies to accelerate an inclusive digital transformation of the agrifood systems in Sub Saharan Africa and Southern Asia



FSPN Africa in collaboration with other stakeholders are working through a Living Lab approach to accelerate sustainable indigenous food system transformation to address malnutrition





Marketplace: Solutions and platforms at work (3/5)

Link to detailed information

Day 1:



Equitel is an easy-to-use and secure telecommunication and mobile banking platform that helps you manage your money and communicate with more Freedom, Choice and Control.



LOOP is a Smart Digital Wallet you can use to manage all your money centrally.



Ignitia democratizes climate intelligence by delivering user friendly forecasts and climate smart advisories to improve the productivity and livelihoods of farmers and food system stakeholders.



Boomitra enable farmers and ranchers to generate third-party certified carbon credits and sell them to corporations and governments looking for carbon removal increasing farmers' incomes.



Farm to Market Alliance is a publicprivate sector collaboration that works through a network of Farmer Service Centers (FSCs) to support smallholders and transform food value chains.





Marketplace: Solutions and platforms at work (4/5)

Day 2:

Link to detailed information



Amtech operates a credit score system that analyzes smallholder farmer datasets to produce relevant credit scores and decision tools that enable farmers' organizations to lend.



<u>ThriveAgric</u> is a technology-driven agricultural company that ensures food security by improving Africa's agriculture sector.



M-Shamba is an agritech-company that solves several of Kenya's food systems' challenges; low farm productivity, market access, and food losses.



<u>UjuziKilimo</u> brand personality can be visualized as a trailblazer in the agricultural landscape, always seeking new ways to grow, innovate, and lead.



<u>iPOS</u> is a cutting-edge retail management technology designed to empower small and medium-sized enterprises (SMEs) and agro-dealers in rural Africa.



<u>Cropnuts</u> is a leading agricultural laboratory & advisory solutions provider offering innovative services in soil health analysis, plant nutrition, and crop advisory.



<u>Digital Green</u> is an international development organization established with a mission to create a world where farmers use technology and data to build prosperous communities.



AgroCares is a global Ag-Tech company aiming to improve crop productivity and sustainability and encourage efficient farm management practices.





Marketplace: Solutions and platforms at work (5/5)

Day 2:

Link to detailed information



agriBORA is an agri-fintech company that is balancing the use of technology and human touch to de-risk smallholder agriculture, improve farm productivity and facilitate effective trading



<u>Kuza</u> supports youth Agripreneurs via mentorship, and business support services and facilitates access to inputs, credit, and markets via its ONE digital Network.



<u>Lersha</u> provides a wide range of services to smallholders, agropastoralists and commercial farmers in Ethiopia through its digital platform.



<u>Shamba Pride</u> is revolutionizing rural agriculture ecosystem through online-to-offline platform that connects smallholder farmers to services technology powered digishops



Nendo is an award-winning research and marketing agency based in Kenya and working across 20 African countries.



eProd offers a proven and affordable supply chain management platform designed to enable aggregators to manage large numbers of suppliers (farmers).



<u>Mozilla Common Voice</u> is an initiative to help teach machines how real people speak. Voice is natural, voice is human.



<u>GreenEdge Digital Africa</u>, champions digital solutions that offer farmers access to expert advice, market connections, and affordable farming essential





DAY 1				
Session	Session Category Name Organization			
Introduction and Keynote speech	Introduction and Event Coordinator of Ceremonies	Muthoni Muta	Kenya Climate Smart Agriculture Project	
	Opening remarks	Sieka Gatabaki	Mercy Corps AgriFin	
	Keynote speech	Director Phylis Njane	Ministry of Agriculture and Livestock Development	
	Panelist	Dr. James Mwangi	Equity Group Holdings	
		Abdulmajid Nsekela	CRDB Bank	
Leaders' dialogue		Jesman Chonzi	IFC	
		Melaku Yirga	Mercy Corps	
	Moderator	Tamara Cook	FSD Kenya	



DAY 1				
Session	Category	Name	Organization	
	Speakers/panelists	Jamie Anderson	CGAP	
		Rupsha Banerjee	ILRI	
Break-out 1		Jacqueline Odundo	Warehouse Receipt Systems Council	
		John Mungai	Agricultural Finance Corporation	
services: Finding		Tito Gichuhi	Genesis Analytics	
partnerships and making it work for agro-producers		Paul Odong	Equity Bank Uganda	
		Anthony Mbithi	Family Bank	
		Jared Ochieng	FSD Kenya	
		Euster Seghete	NCBA Bank	
	Session moderator	Paul Kweheria	Quad Tee Corporation	



DAY 1			
Session Category Name Organiz			
		Sadiaa Braque	BRAC International Holdings B.V.
		Sudi Matara	KTDA
		Emmastella Gakuo	Savanna Circuit
Break-out 2 Gender and	Speakers/panelists	Nneka Enwonwu	Hello Tractor
		Seema Gohil	DigiFarm
marginalized groups: Growing		Dr. Ahmed Rufai	Livestock247
inclusive and equitable food systems through collective action		Adwoa Fofie	Cowtribe
		Alexis Teyie	SPARC
		Duncan Oyaro	FSD Kenya
		Ann Kitonga	IDH
	Session moderators	Kassim Zani	Mercy Corps AgriFin
		Oludolapo Olusanmokun	Mercy Corps AgriFin

DAY 1			
Session	Category	Name	Organization
		Henry Burgsteden	FAO
		Mandlenkosi Nkomo	CGIAR
		Mercy Mwangi	Farmer
		Esther Kinyanjui	Farmer
Break-out 3		Kennedy Gitau	Farmer
Providing Advisory:	Speakers/panelists	Scolastica Kanini	Farmer
Exploring		Jeremia Gatundu	Farmer
innovative revenue models,		Hillary Kipngeno	Digicow
leveraging		Kelechi John-Ogbuku	CoAmana
partnerships to tailor affordable		Kristin Peterson	Sprout
and inclusive		Temesgen Gebeyehu	Ethiopian ATI
services for smallholder		Abrhame Endrias	Lersha
farmers		Professor Simon Ndiritu	Strathmore University
		Calvince Okello	Mshamba
		Peninah Wanja	DigiCow
	Session	Elias Nure	Mercy Corps AgriFin/Sprout
	moderators	Irene Warui	Mercy Corps AgriFin/Sprout

DAY 1				
Session	Category	Name	Organization	
Generating Evidence	Speakers	Hannah Reed	Bill and Melinda Gates Foundation	
		Venu Aggarwal	60 Decibels	
		Hanadi Al Saidi	60 Decibels	
		Morgan Kabeer	Busara	
		Jenna Fahle	Center for Effective Global Action, UC Berkeley (CEGA)	
Bulletin and closing remarks	Bulletin	Jasper Okoth	Dalberg Advisors	
	Closing Remarks	Collins Marita	Mercy Corps AgriFin	



-	V/	

Session	Category	Name	Organization
Introduction and opening remarks	Introduction and Event Coordinator of Ceremonies	Muthoni Muta	Kenya Climate Smart Agriculture Project
	Opening remarks	Sieka Gatabaki	Mercy Corps AgriFin
Anchor presentations and launches	Machine learning and Al	Dr. William Ogallo	Google
	IDH FarmFit Insights Hub Launch	Carolijn Gommans	IDH
Break-out 4 Markets/Platform: Enhanced collaboration for effective digital platforms		Wouter Van Monsjou	IDH
	Speakers/panelists	George Njoroge	FtMA
		Samirah Bello	Thrive Agric
	Session moderator	Samuel Karanja	Mercy Corps AgriFin



DAY 2				
Session	Category	Name	Organization	
	Speakers/panelists	Kristin Girvetz	AgThrive	
		Jacopo Parigiani	Cropnuts	
		Boniface Akuku	FAO	
Break-out 5		Margreet Muizebelt	Acorn Rabobank	
Digital Climate Smart Agriculture: Financing Climate Change Adaptations		Dr. Wario Sake	Northern Rangelands Trust Trading (NRT-Trading)	
		Guyo Malicha Roba	Jameel Observatory	
		Hedwig Siewertsen	AGRA	
		Jeremy Cordingley	Cropnuts	
		Chloe Stull-Lane	SPARC Knowledge	
	Session moderator	Lavender Apollo	Mercy Corps AgriFin	

DAY 2				
Session	Category	Name	Organization	
Break-out 6 Data:	Speakers/panelists	Shreejit Borthakur	IDH	
		Simon Mulwa	KALRO	
		Paul Odong	Equity Bank Uganda	
		Kelvin Shikuku	ILRI-KAZNET	
Collaborative Data Synergies		Beryl Agengo	Digital Green	
for Food System Transformation		Zilla Arach	EzyAgric	
		Albert Boogaard	RaboBank	
		Francis Gwer	FSD Kenya	
	Session moderator	Emmanuel Makau	Mercy Corps AgriFin	
Anchor presentations and launches	State of Digital Ag'	Claude Migisha	Research ICT Africa	
	Agbase Launch	Matthew Shakhovskoy	ISF Advisors	

DAY 2				
Session	Category	Name	Organization	
		Hannah Reed	Gates Foundation	
Driving		Magdalena Banasiak	Acumen	
Investments: Unlocking	Speakers/panelists	Ayodeji Balogun	AFEX	
financing for innovation and scale		Hetal Patel	Mercy Corps Ventures	
		Jan Willem	eProd	
	Moderator	Roel Messie	IDH	
	Speakers/panelists	Carolijn Gommans	IDH	
		Stanley Wanyoike Njoroge	Safaricom	
Closing panel		Hannah Reed	Gates Foundation	
		Mildred Nadah Pita	Bayer Foundation	
		Boniface Akuku	FAO	
	Moderator	Mwombeki Baregu	IFC	

From the Mercy Corps AgriFin ALE Secretariat and Strategic Partners: Thank You!

Our Strategic Partners















Our Content Partners







Our Great Sponsors











For any enquiries, please contact:

Collins Marita

MERAL Director, Mercy Corps AgriFin

Cmarita@mercycorps.org

To learn more about our work, visit our website:

https://www.mercycorpsagrifin.org/