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CASE STUDY

Farmer Cooperatives in Uganda United in a Data Collaborative

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Farmer Cooperatives in Uganda United in a Data Collaborative

Putting valuable performance data in the hands of farmer organizations

A consortium of public and private organizations carried out a pilot in 2019–2022, with the Ministry of Trade, Industry and Cooperatives (MTIC) in Uganda, aiming to build a coordinated National Cooperative Database with effective data governance, ultimately to professionalize farmer cooperatives. The governance structure resembles and aspires to be that of a **data commons** approach.¹ For now, the database is structured more as a **data collaborative** data governance approach, aiming to help actors understand the value of harnessing the power of data, create a sense of empowerment, and establish negotiation power and agency for farmer organizations. This case study provides insights into data commons, the challenges of multistakeholder data collection, participation with farmer cooperatives, and data ownership and control.

Background and main challenges

Farmer co-ops are essential players in agriculture and for the livelihoods of farmers. These farmer organizations (FOs)² supply inputs and present market opportunities, generate efficiencies through economies of scale, enable increased yields, and develop business plans. Added value can be created and shared between buyers and farmers and is essential for successful collaboration. The sector is prevalent and growing, with many actors trying to do their share of capacity building and extension activities. What is missing is structured coordination in the way stakeholders work with FOs. This results in a lot of replication, waste of resources, and sometimes misinformation.

Detailed data on the impact of interventions is rarely available. The little data available is often incomplete, not easily comparable, or of low quality. There is also little evidence of data being owned by FOs or used by them to secure new markets or finance.³ The data appears to be used primarily for determining training needs and monitoring FO development, because (1) the cost of the process (time and money), which leads some groups to adopt a sampling approach instead; (2) concerns about credibility of assessment data; and (3) the data only provides a partial picture of “bankability.”⁴

1. Data commons co-locate data as a digital resource, to store, manage, share, access, and interact with collectively owned data, with and by a community. Data commons are a specific type of commons, for a field or discipline, to accelerate access and discoverability to increase the impact and benefits of the data. For more information, see the [Deep Dive on Data Commons](#).

2. We use FOs, farmer associations, farmer cooperatives, and groups interchangeably here.

3. AMEA's [Annual Learning Report 2020/21](#).

4. This data also enables prospective financiers to decide whether to take these agri-SMEs (small to medium-sized enterprises) into their intake process. The [Bankability Metrics](#), a standardized set of indicators to help unlock finance for farmers and their agri-SMEs, is an example of how this can be put into practice.

Even the more capable FOs are relatively weak and fragile. This means that it is often the off-takers and financial service providers who have the most credible data on FOs, and this data is part of their competitive edge and thus remains protected. FOs, therefore, often have their data extracted, rather than owning and using data for business development. However, as noted by IDH in their paper, this lack of data also makes it difficult for the private sector to really understand farmer needs.⁵

Other challenges related to the case study environment

- **Lack of information to support farm cooperatives.** Governments might want to support co-ops and inform policy, but it is hard for them if they don't have enough information on co-ops. There are many questions around data management, infrastructure, and where are we getting the resources from.
- **Governments lack mechanisms (necessary to assess audits).** The biggest hurdle is the supervision of FOs. The data infrastructure management needs clear and transparent sharing policies and protocols. While MTIC doesn't lack ambition, it is not ready in terms of in-house capacity, and its culture is not data driven.
- **Farmers and FOs are regularly subjected to many assessments,** which can lead to farmers seeing very little value in the process and can mean the data collected is inaccurate or misleading. Farmers and FOs may not use it for their own improvement.
- **Data literacy of farmers and FOs is a big problem** in Uganda, for example, in regards to understanding of the value of data, the capacity for data sharing, and the management of data by FOs.
- **Logistical challenges** include reaching farmers, especially in rural or remote areas; size and dispersion of FOs; complexity in measuring accurate information on variables; availability of enumerators; lack of appropriate tools and farm-level records; and complicated and diverse measurement methods.
- **Investment challenges** include the costs and cost-efficiency of collecting data, a lack of preparedness, and data literacy of FOs. The value of data is often not visible enough to outweigh the collection costs.
- **A sizable number (30–40%) of farmers are not represented in FOs that have been legally registered.** There are many informal forms of farmer organizations not accounted for.
- **Finally and critically, there is also the farmer fatigue challenge,** meaning that farmers have been or are asked multiple times by different organizations to share the same data, causing reluctant sentiment in regards to sharing data again.

5. IDH Farmfit Intelligence, Keijser, C. (2021) [How to best use primary farm-level data for impactful smallholder engagement models](#)

How are problems solved?

The **Uganda Consortium**—with [AMEA](#) (Agribusiness Market Ecosystem Alliance) Global, [SCOPEinsight](#), [Rikolto](#), [National Alliance of Agricultural Co-operatives in Uganda](#) (NAAC), and Agriterra—was formed in 2020 to address the above problems by enabling the cooperatives and Consortium partners to collaboratively build a system that accelerate FO professionalism rather than loosely coordinated projects.⁶ The building of an ecosystem ensures that data governance requirements can be managed more effectively; local platforms where members and partners can discuss priority areas for acting. The Consortium designed a new holistic approach to help professionalize farmers and create market opportunities. This was done via a framework in which actors can collaboratively support FOs and connect with the right interventions. This enhances MTIC’s control over capacity building and creates an opportunity to provide effective guidance for government policy, especially for business development services (BDS) access.

The National Cooperative Database. The Ugandan Ministry recognized the need for more insights regarding the cooperative landscape. This led to the launch of the first digital database of co-ops. As a data collaborative that resembles a data commons, the data is pooled as a common resource for shared gain or private benefit. The Ugandan public authorities are able to guide the partners on all data matters (type, collection method, use, etc.), so that all actors work towards a common goal, be it with different organizational objectives.

The Consortium (via SCOPEinsight’s SCOPE Rapid⁷ tool) is able to collect and harness data of capacity and performance levels (the majority of which is non-personal data). Data on capacities includes data on business and financial management, service delivery, and organization governance. The goal is to demonstrate what areas of improvement and investment are possible and inform further development. As for performance, data indicates how well activities are executed and how much improvement is needed.

This solves the challenge of harmonization and interoperability. The tool informs on what is in place to give a general state of the FO. The data allows for tailored, coordinated support, enough to provide the Ugandan MTIC and potentially other governments with a snapshot of a country or sector, which can help direct aid, design projects, and create policy. This lays the groundwork for the government to further scale efforts. A data-driven, standardized approach streamlines support to strengthen capacity and accelerate professionalism and participation in the market. The use of a database eases the review of the National Co-operative Policy, as all assumptions are evidence-based. The building of an ecosystem also ensures that data governance requirements can be managed more effectively.

7. For more information on the [SCOPE Rapid tool](#).

6. AMEA Global (Agribusiness Market Ecosystem Alliance) promotes tools that recognize farmers’ rights and supports debate on how to improve the way in which agribusiness engages with farmers.

8. E.g., [Cordaid’s STARS program](#) supported financial service providers to use an Agricultural Credit Assessment Tool (ACAT), which equips credit staff to assess finance risk in select value chains. ACAT works best when FOs have credible data to provide to financial service providers.

Data ownership and control is critical to enable farmers and FOs to develop greater empowerment and agency in value chains. Increasingly, co-ops appreciate the value of data to enable access to finance, develop business opportunities, and meet legal obligations.⁸ The assessment processes and use of the data requires farmers' consent and gives SCOPEinsight permission to collect the data for the use of the purpose. The assessment and data collection tools enable FOs to own their data. All actors seem to agree that farmers and FOs need to have unabated access to their own data and the government needs to have a stronger control over this data so that non-state actors do not "personalize" it. The plan is to have the National Information Technology Authority-Uganda (NITA-U) join the conversation to guide on this.

Participation and user-centricity. Targeting FOs in programs has benefits for service providers and those needing to show return on investment (ROI), but it is not inclusive. The Consortium's approach is to support the use of standards (e.g. [IWA29](#)) and aligned tools relevant for all levels of FO development, such as tools that measure the level of professionalism. Others have also been examining different approaches to segment the FO landscape, which allows for a more sophisticated support to be provided based on FO business needs. The Consortium considers data to be essential for cost-effective local BDS to be developed, and this requires a combination of public and private (PPP) sector-led programs. This PPP could be delivered via regional or value-chain programs.

Facts and figures

There are about 20,000 farmer cooperatives out of the nearly 40,000 registered co-ops in Uganda.

- The government has the latest information on less than 1,000 farmer co-ops at any given point in time (only those that file returns with the registrar after closure of their financial year).
- Data usually does not include parameters needed for better support or linkage to the private sector. For example, it does not capture basic variables, value chains undertaken by the co-ops, or gender-based aggregation of the membership.



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Important enablers in the local environment

- The [IWA29](#) provides a standard for cooperative strength. The IWA29 is an international guideline published by ISO, which is expected to become a full standard in the near future. It defines the core capacities of professional FOs, clarifying what it means to be professional and what it takes to get there successfully.⁹
- NITA-U is in charge of all national data protection in Uganda.
- Farm co-ops in Uganda are well protected in comparison to other formal or informal organizations.
- Because of the lack of resources, government agencies have a hard time reaching FOs.
- The project focuses on legalized types of farmer organizations, namely farmer co-ops. Many, if not most, farmers in Uganda are organized in unregulated groups. These are very limited in what they can do, with no authorization to do business or gain government services, for example.

Financial viability and sustainability

The viability of the Consortium is based on the willingness of members and partners to collaborate and to co-finance the activities. The Consortium developed a public investment proof of concept. Rikolto is testing out a willingness to pay for assessments and data sharing with the FOs and, eventually, the financial service providers. This segmented approach will be essential to provide market signals on the value of the data and ensure that the investment is targeted to those who need it most. The Consortium aims to involve the private sector to develop a more sustainable ecosystem, where each stakeholder that benefits from stronger FOs contributes to the cost. This means that lenders pay for a quality pipeline, while traders or processors pay for a higher quality product and a more stable value chain. The second phase of the project is awaiting new funding. The Consortium has already presented the progress at a national stakeholder meeting and the Uganda Agricultural Donors working group and is optimistic that a second phase will proceed based on the interest expressed.

9. For some markets, certifications like [Global GAP](#) and [fair trade](#) have driven performance improvement by clearly transmitting requirements to co-ops. However, these processes are unable to drive change in agricultural production at scale. Certification can be a costly exercise and audits are often done as a policing exercise, which brings little direct value to the producer. For many cooperatives, certification is not a worthwhile process.

What was the impact?

- A pilot of 216 rapid assessments of cooperatives for the government of Uganda were conducted, resulting in a set of best practices on what co-ops are doing.
- The collected data fed into a national database, which was launched in July 2022.
- It has been difficult to create credible databases for various reasons, including technology and capacity constraints and ethical and privacy concerns.
- Technical solutions are not sufficient. A culture of wanting to provide this data is needed.
- The design of a database should consider:
 - Balancing trade-offs between practicality (of collection) and utility (what would be its added value?),
 - Developing mechanisms to assure that data are accurate and up to date,
 - Addressing data privacy concerns, Identifying a sustainable funding model,
 - Identifying how it should be managed, in order to be most effective,
 - Establishing who should govern it, manage it and who should have access to it.

What lessons can be learned?

- The question of whether cooperatives should collect their own data is an ongoing debate within the Consortium. There would be a high risk of exaggerating and distorting data if co-ops performed self-assessments. However, the cost of independent assessments is high, and perhaps they would have greater ownership of their data if they did do the assessments themselves.
- AMEA wants to ensure that the data collection process is using technology that enables farmers and co-ops to easily access and use their data. The challenges to adopt new tech should not be underestimated, but clearly provides an opportunity for farmers.