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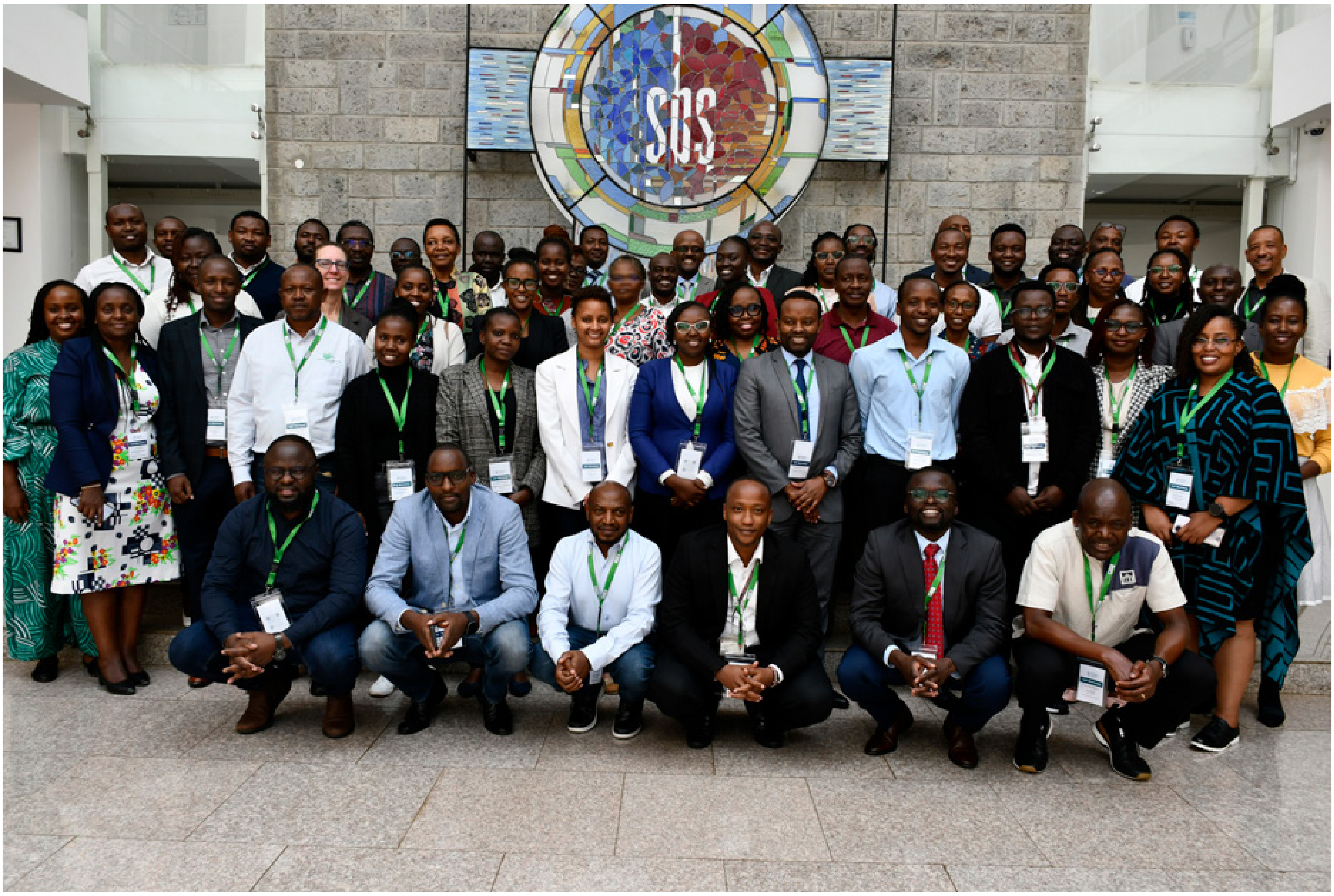
AGRI-MARKETS DATA FOR INVESTMENT AND GROWTH

Agri-Markets Data for Investments and Growth

Community of Practice Workshop Report

Spearheading Food System Transformation in Africa

Strathmore UNIVERSITY
Agri-Food Innovation Center (SAFIC)



Date: November 8, 2024, | Location: SAFIC, Strathmore Business School, Nairobi, Kenya

SAFIC Home - Strathmore Agri-Food Innovation Centre

EXECUTIVE SUMMARY

The workshop convened to shape the vision and operational framework of the Community of Practice (CoP) highlighted two key approaches to its development. The first approach focused on addressing technical aspects, such as filling data gaps and generating new datasets. However, greater emphasis was placed on a second, more comprehensive approach that seeks to tackle systemic challenges hindering institutions from achieving their objectives in data generation, decision-making, investment planning, and farmer support.

Participants underscored the importance of the CoP addressing shared barriers faced by its members and their respective institutions. To achieve this, they proposed advocating for policy reforms and governmental support to create an enabling environment for the data CoP. Such reforms would empower CoP members to fulfill their mandates effectively while facilitating data-related activities.

A critical component identified was the development of a digital public infrastructure to support the entire data ecosystem. Participants emphasized the need to engage policymakers and development partners in securing investments for this infrastructure, ensuring it is accessible and beneficial to all members. This infrastructure was viewed as foundational for seamless collaboration and data sharing within the CoP.

Collaboration and synergy among CoP members were also highlighted as essential to its success. To prevent duplication of efforts and enhance cooperation, participants proposed establishing working groups focused on specific areas of interest. These groups would play a strategic role in leveraging underutilized existing but siloed data, reducing reliance on generating new datasets while maximizing value from current resources.

The workshop concluded with a shared vision for the CoP as a collaborative, solution-driven entity that prioritizes addressing systemic challenges over technical data generation. By aligning its efforts with members needs, the CoP aims to create lasting value and foster a supportive environment for the broader data ecosystem.

Buzz group discussions

Report back from buzz groups

Reflections over break

BACKGROUND

Kenya's agricultural data remains fragmented, limiting its potential to drive investment and informed decision making. Although various frameworks have been developed, persistent challenges in data integration continue to hinder the sector's ability to fully leverage data-driven solutions for transformative growth in agri-markets.

To address these challenges, the Agri-Markets Data for Investment and Growth Community of Practice AMDIG (CoP) was conceptualized during a workshop aimed at fostering alignment across the agricultural ecosystem. Bringing together over 50 participants from diverse sectors, the CoP seeks to promote the integration, harmonization, and sharing of agricultural data and insights. Through collaboration, the CoP aims to unlock evidence-based decision-making across the value chain, benefiting from increasing data interoperability and fostering collaborative driven approaches.

Objectives of the Workshop:

1. Develop a shared vision for the Community of Practice (CoP) and discuss benefits, attributes, and value proposition.
2. Identify the roles that we, as stakeholders, are best suited to play in supporting the CoP's governance and working structures ensuring its long-term impact.
3. Deliberate on how to collaborate sustainably within the CoP
4. Prioritize use cases and collaboration opportunities to support data-driven agribusiness interventions.

The workshop, facilitated by Ed Rege of the Emerge Centre for Innovations–Africa (ECI-Africa), focused on discussions around these objectives and the strategic pathways to operationalize the CoP.

Following is a detailed account of the workshop proceedings

SESSION 1. OPENING REMARKS FROM SAFIC CENTER DIRECTOR, PROF. S. WAGURA NDIRITU

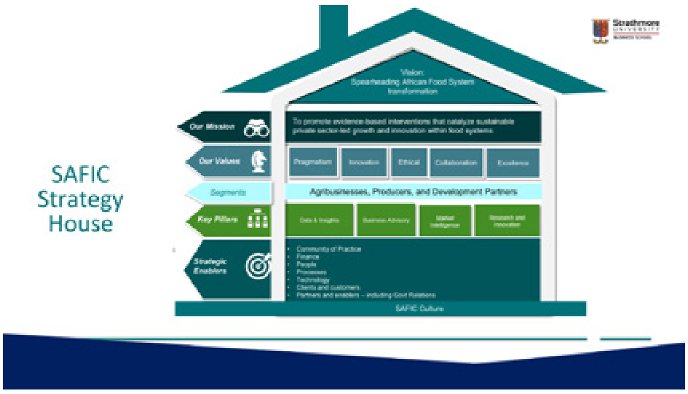
The event commenced with opening remarks from Professor Simon, the Centre Director. He provided an overview of Strathmore University and its various schools and centers, including the role of SAFIC in addressing key challenges in the agri-food sector. He noted that one of the critical issues SAFIC seeks to resolve is fragmented data in the agricultural space, which hampers effective decision-making by businesses, investors, governments, and development partners. This challenge, he noted, underpins the creation of the Community of Practice (CoP) on Agri-markets Data for Investment and Growth (AMDIG) which is conceptualized to facilitate collaboration among stakeholders to harness the potential of data for impactful agricultural investments.

Professor Simon also presented the core pillars of SAFIC's strategy Data and Insights, Business Advisory, Market Intelligence, Research and Innovation Brokerage. The pillars are aimed at supporting private sector growth while ensuring government alignment. He emphasized the importance of a collaborative approach in ensuring the success of the CoP.

Simon Wagura, Center Director SAFIC welcomes participants during the CoP workshop

Reflecting on the challenges of fragmented markets and a lack of data-driven decision-making, he underscored the need for integrated value chains and the importance of building trust among stakeholders to share data. This was followed by a brief introduction to the triple helix model, which advocates for the collaboration of government, industry, and research institutions to solve agricultural problems. The CoP, as envisioned, aims to bring these three sectors together to create actionable data and insights that can influence agricultural investments and policy.

The session concluded with a call to action for participants to reflect on their contributions to the CoP, emphasizing the importance of creating shared value and fostering collaboration to drive agricultural sector growth.



The COP as a strategic enabler for the Data & Insights Pillar.

Insights from Obai Khalifa Deputy Director, Agricultural Development-Africa, Gates Foundation

In a presentation at the workshop, Obai highlighted the significant economic potential of agriculture in Africa, emphasizing the need to shift the narrative from focusing solely on the challenges to also recognizing the opportunities. He noted that agriculture contributes an average of 15% to Africa's GDP, and in more agrarian economies, it can account for up to 40%. Additionally, it employs a large portion of the population, particularly youth, making it a vital sector for economic growth.

However, despite its potential, agriculture in Africa faces several challenges, including low productivity and inadequate investment. Obai pointed out that productivity in agriculture in Africa lags that of wealthier economies, largely due to a lack of innovation and the absence of supportive policies that encourage investment in the sector. He also noted that there is a significant underfunding of agriculture, with government budgets for the sector falling far short of the commitments made under the Maputo Declaration, which called for at least 10% of national budgets to be allocated to agriculture.

The private sector also faces challenges in investing in agriculture due to perceived risks. Data, or the lack thereof, plays a crucial role in this risk perception, as investors and farmers alike need accurate, accessible data to make informed decisions. At the farm level, data is essential for precision farming, planning investments in inputs like seeds and fertilizers, and understanding the return on investment. This data is also critical for helping farmers manage risks associated with climate change, droughts, and pest infestations.

On the development side, he pointed out that the problem isn't a lack of funding but rather limited coordination within the development sector, leading to duplication of efforts and inefficient resource allocation.

"There is a need for better coordination to ensure that interventions are tailored to specific agro-ecological zones and local conditions, and that the strategies of the public, private, and development partners are aligned."

Obai also highlighted the importance of research and innovation in agriculture, emphasizing the need for a collaborative approach between the research and private sectors from the outset. This will ensure that innovations are designed for adoption scale.

Finally, he addressed the challenge of data fragmentation. He noted that governments, private sector players, and development organizations often struggle to access and coordinate data. Better coordination is needed to ensure that data is accessible, integrated, and actionable. Drawing from successful models like the LD4D (Livestock Data for Decision-Making) Community of Practice, Obai suggested that similar collaborative frameworks such as the AMDIG CoP could be developed for the agriculture sector.

Obai delivering remarks

Insights from Dr. Christopher Wanga, Director of Livestock Policy Research & Regulation at State Department for Livestock

The government's involvement in Agri market transformation is critical, particularly in the context of improving data management and planning. Dr. Christopher Wanga from the Ministry of Agriculture and Livestock Development expressed gratitude for the partnership with Strathmore Business School and SAFIC emphasizing the importance of addressing real needs and breaking down silos in agriculture. He highlighted that scattered and fragmented data has long been a challenge, making effective government planning difficult. This gap has often led to the rise of external entities taking advantage of the situation, but the government recognizes the need to move beyond this by fostering collaboration across sectors.

He highlighted the livestock sector as a critical area of focus, noting that it is often disproportionately affected by poverty and heavily dependent on relief interventions, particularly in drought-prone regions. A key challenge, he explained, lies in the lack of comprehensive data, which often results in interventions being designed without a full understanding of the underlying issues. Emphasizing the importance of accurate, data-driven diagnoses for addressing agricultural challenges, he pointed to the development of the Livestock Master Plan as a pivotal step. This strategy aims to leverage robust data to improve planning and design more effective interventions for the livestock sector.

He highlighted the Ministry of Agriculture's collaboration with stakeholders as a critical effort to improve livestock data and address its underrepresentation in national economic statistics. He noted that the sector's true contribution to the GDP, particularly in value chains beyond dairy, is often not fully captured. This lack of accurate representation contributes to underfunding and misalignment of investment priorities, underscoring the importance of robust data to better inform policy and funding decisions for the livestock sector.

Dr. Wanga emphasized the importance of initiatives that bring together industry, research, and government to collaborate on data management. He applauded the efforts of SAFIC in this regard and noted the need for continued forums to build a robust Community of Practice on data within the agricultural sector. He also pointed out that by dismantling silos and fostering collaboration across sectors in livestock, crops, and fisheries the government believes that data-driven decision-making will enable better-targeted investments, clearer policy decisions, and more effective interventions across agriculture.

Dr. Christopher Wanga delivering remarks

SESSION 2: INTRODUCTIONS, EXPECTATIONS AND SCENE SETTING

During the session, participants introduced themselves and shared their expectations for the meeting, highlighting what should and should not happen to ensure a productive workshop. They emphasized the importance of learning, networking, breaking silos, and fostering collaboration to create an inclusive and sustainable Community of Practice (CoP). Key priorities included defining a clear vision, actionable next steps, and leveraging underutilized data. Participants also stressed the need for structured discussions, avoiding dominance, insincerity, or wasted time, and ensuring the initiative leads to tangible outcomes rather than becoming another unfulfilled effort. These insights set the stage for a focused and action-oriented workshop.

"Should and should not happen during the meeting"

Scene Setting 1: Unlocking the Power of Collaboration for Agri-Market Transformation

In line with the session discussions, Wanjiku Kiragu, a Consultant from SAFIC, presented on the role of collaboration in overcoming agricultural market challenges, which are exacerbated by factors such as climate variability, market volatility, and shifting consumer demands. She pointed out that no single entity, government, private sector, or research institutions can address these issues alone. She noted that the solution lies in pooling resources, sharing knowledge, and creating synergy through collaborative efforts. Wanjiku highlighted the power of Community of Practice (CoP) as a vehicle for such collaboration, noting that the CoP could potentially help to align different stakeholders with common goals, build trust, and share critical data and insights.

Wanjiku also underlined the complexity of the agriculture sector, pointing out that effective transformation requires clear purpose, vision, and communication. She advocated for inclusive agricultural transformation that leverages data for evidence-based decision-making at all levels whether farm level or policy level. In this regard, SAFIC aims to foster a Community of Practice that can integrate insights across value chains, align government priorities with on the ground farmer practices, and improve coordination to address inefficiencies in supply chains.

As Wanjiku summarized, she mentioned that the goal is to co-create a sustainable and effective framework for Agri market transformation. This includes identifying thematic areas such as data analytics for value chain decisions, aligning policy with farmer needs, and improving coordination within the sector. She men that by sharing resources, knowledge, and data, stakeholders can work together to generate insights that drive real impact in the agricultural market.

Wanjiku Kiragu presenting

Scene Setting 2: Contextualizing AMDIG and Building a Shared Vision for the CoP:

A presentation from Dr. Mujibi , Principal Lead, Data Insights & Market Intelligence, SAFIC highlighted that while markets were crucial to unlocking the full potential of agricultural value chains, their transformation should be driven by shared, transparent data. He noted that too often, data exists in silos either not shared or fragmented leading to inefficiencies. For example, he noted that when developing an enterprise budget, it is essential to aggregate data from different nodes of the value chain, including farmers, agro-vets, transporters, and financial institutions among others. Without sharing this data, stakeholders are left with incomplete insights, making it difficult to make informed decisions.

The true power of data, as Dr Mujibi articulated, lies in its ability to be shared. By collaborating through the CoP, stakeholders can unlock the full value of data, ensuring that market actions are data-driven and that all participants in the value chain benefit from transparent, evidence-based insights.

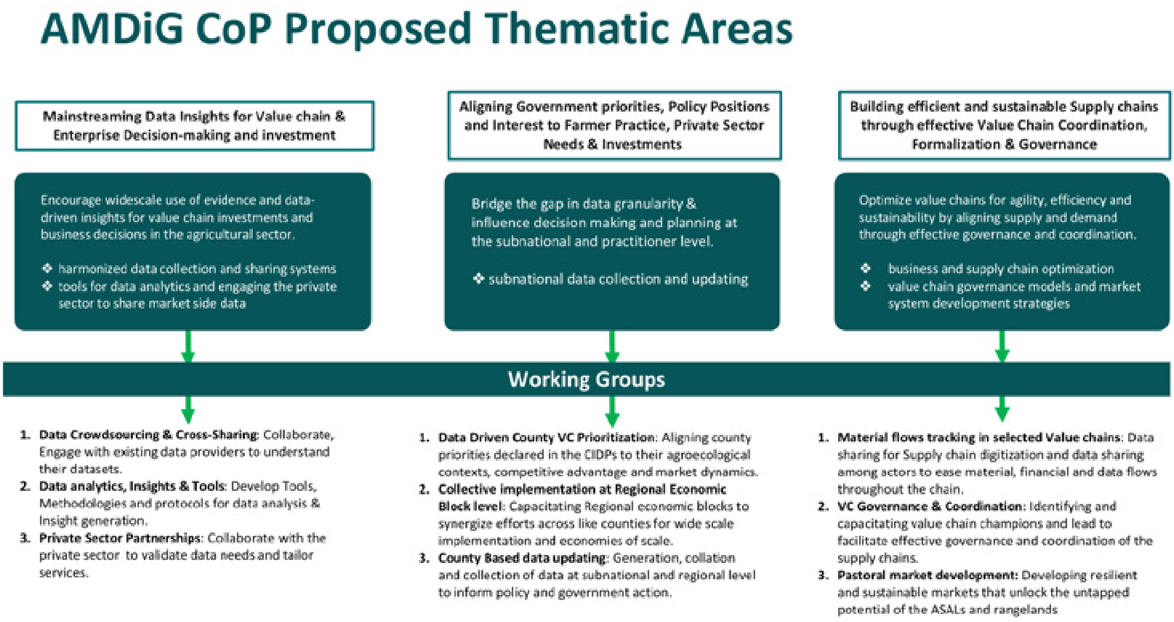
Dr. Denis presenting

Proposed Thematic Areas of the Community of Practice

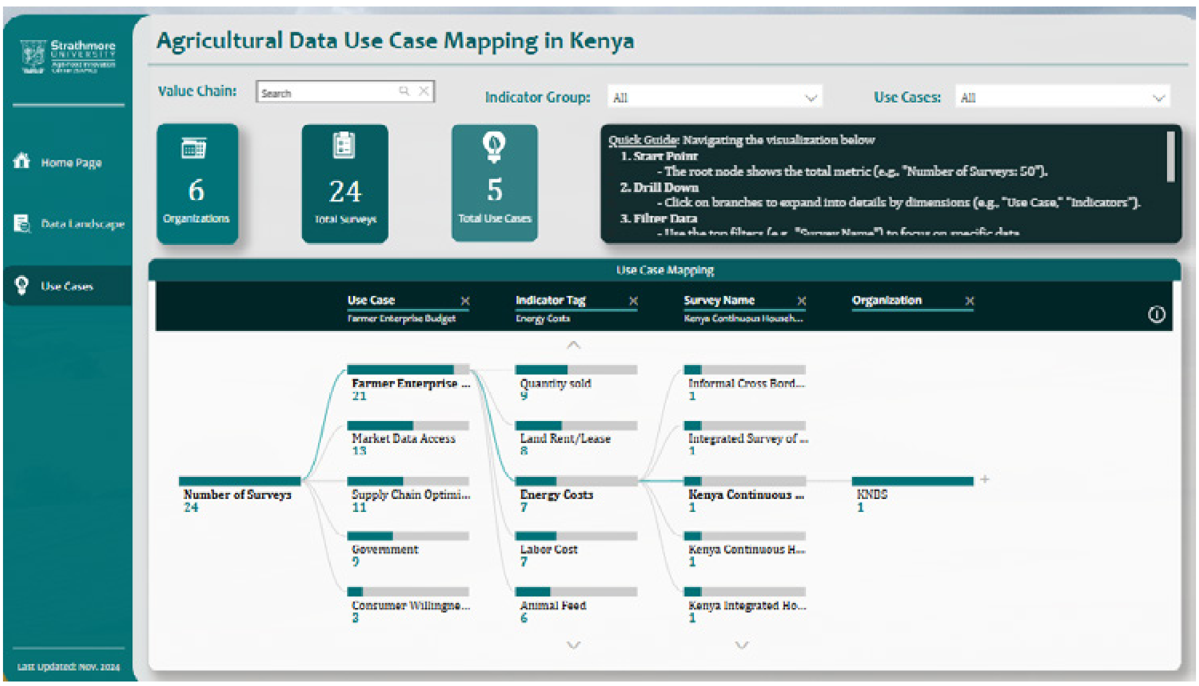
Dr. Mujibi presented that the CoP is structured around three thematic areas, each designed to address key challenges and drive forward the goals of the initiative:

1. **Mainstreaming Data Insights:** The first thematic area focuses on the need for greater transparency and access to data within agricultural value chains. A central challenge identified was the disjointed nature of data, with valuable information often locked in silos. This thematic area aims to bring visibility to where data resides, how it can be accessed, and how to harmonize and share insights across the value chain. By making data more discoverable and accessible, stakeholders can work together to address key gaps and drive market transformation.
2. **Government Alignment and Policy:** The second thematic area stresses the importance of aligning the CoP's activities with government priorities. Dr. Denis highlighted that government alignment is essential for ensuring that data collection, dissemination, and use are sustainable and that policies supporting agricultural growth are consistently implemented. This thematic area also explores the potential role of regional economic blocs and local governments in coordinating data efforts and ensuring that data is available at the lowest administrative units.
3. **Value Chain Transformation:** The third thematic area focuses on the practical implementation of value chain transformation. A key objective in this area is to formalize informal value chains and improve governance structures. This includes defining roles and responsibilities within the value chain, identifying champions for different sectors, and creating the necessary systems and support to ensure effective value chain governance.

Through the SAFIC platform, a database of 605 surveys from 16 organizations has been mapped, providing users with easy access to metadata, survey links, and related indicators. This enables users to find relevant data for specific use cases, like farm enterprise budgets or Supply chain optimization among others. The platform is designed to improve data accessibility, foster collaboration, and ultimately provide a foundation for informed decision-making and synergies in the agricultural sector. Below is a showcase of the dashboard made by Joseph Theuri, Data scientist at SAFIC.



Proposed Thematic Areas



"Illustration on Data Use Case Mapping available on SAFIC website"

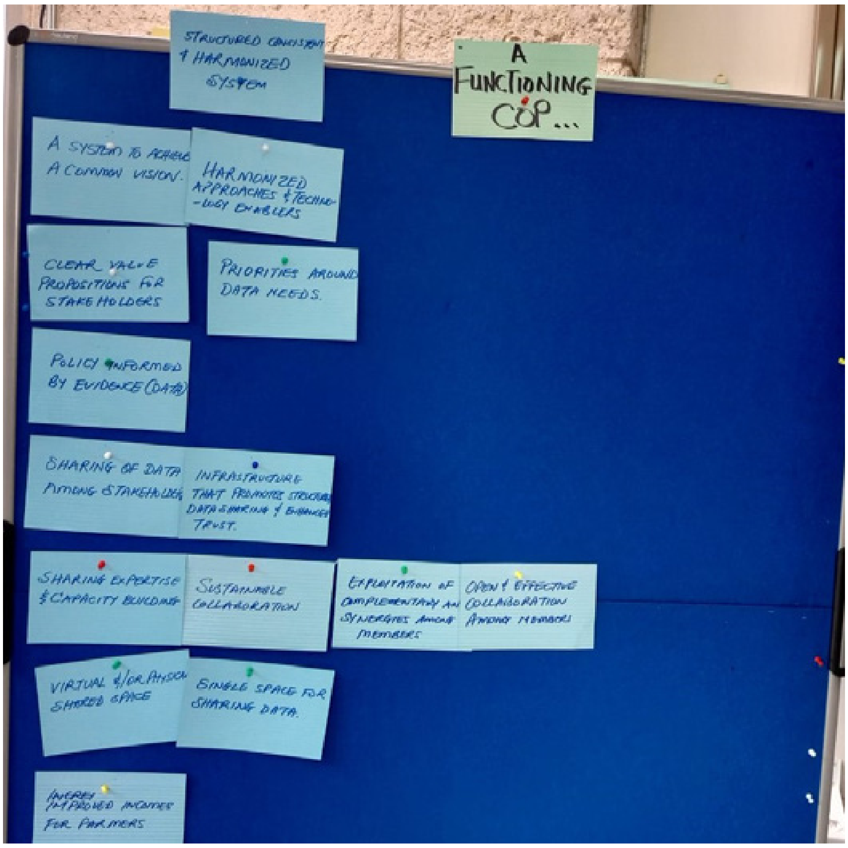
3.1: Drivers for a Successful CoP

Participants outlined key elements necessary to establish a functional and impactful Community of Practice (CoP). Central to this was the creation of structured, consistent, and harmonized systems to support reliable and standardized data sharing. These systems should align with a common vision, ensuring that diverse institutional efforts contribute toward shared objectives.

The discussions emphasized the need for harmonized approaches and technology enablers, such as platforms that facilitate streamlined operations and enable secure, equitable data-sharing across stakeholders. Participants envisioned a CoP where data is accessible, of high quality, and supports evidence-based decision-making, particularly for policy formulation and investment planning.

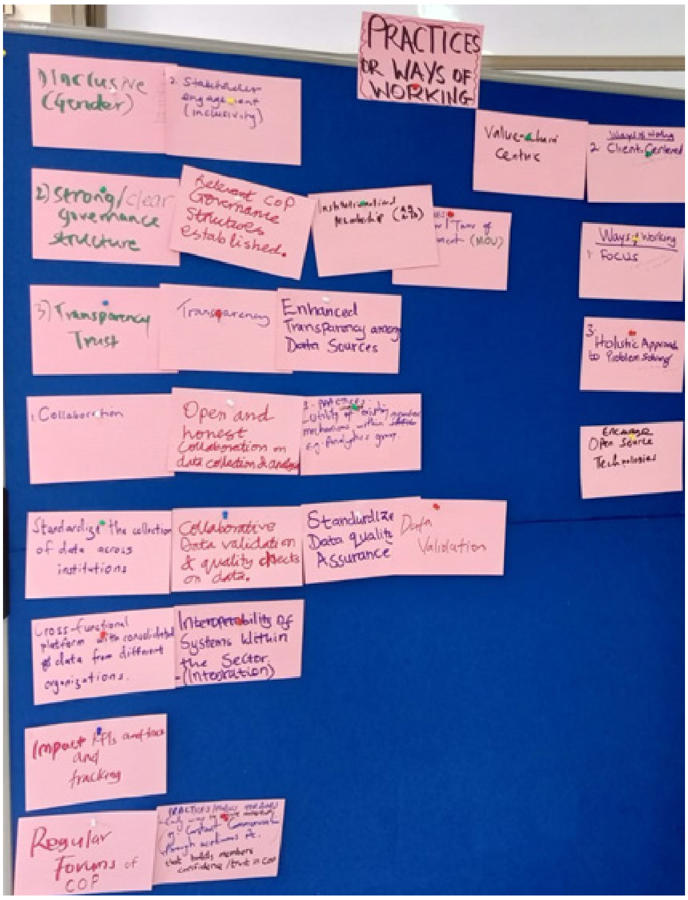
Other priorities included addressing critical data gaps, ensuring stakeholders understand the value of collaboration, and creating a shared space (virtual or physical) for regular engagement and progress assessment. Capacity building and expertise sharing were highlighted as essential to foster learning and mutual support, while efforts to leverage synergies and complementarities among members would maximize the CoP's impact.

To operationalize these goals, participants advocated for clear benchmarks, transparent communication, and mechanisms to enhance trust and participation. Long-term sustainability and improved farmer outcomes were seen as ultimate indicators of a successful CoP, supported by systems that promote collaboration, efficiency, and mutual benefit.



Illustrating a successful CoP

3.2: The Practices and Deliverables that will define the COP



"Practices or ways of working"

To ensure the Community of Practice (CoP) operates effectively and delivers on its goals, participants identified a set of guiding principles and practical approaches. Central to the CoP's success are inclusivity, transparency, and trust. These values are essential for fostering diverse stakeholder engagement, open collaboration, and mitigating risks in data sharing and decision-making. Strong governance structures were emphasized as critical for guiding the CoP's operations and ensuring accountability among members.

Participants highlighted the importance of maintaining high standards for data quality through standardized collection methods, validation processes, and consistent quality assurance. They proposed the creation of cross-functional platforms to integrate data from various organizations, ensuring interoperability and seamless information sharing across sectors.

Regular engagement was identified as a key practice, with periodic forums—both virtual and physical—serving as opportunities to track progress, discuss challenges, and deliberate on future actions. These forums, coupled with constant communication among members, are expected to build momentum and trust. Clear Key Performance Indicators (KPIs) and impact-tracking mechanisms will be established to monitor the CoP's effectiveness and drive accountability.

A holistic approach to problem-solving was also emphasized, focusing on interconnected challenges while ensuring efficient use of resources. Participants advocated for client-centered and value chain centric practices, prioritizing the needs of end-users, such as farmers, and aiming to improve livelihoods while addressing issues across the entire value chain.

The group also called for institutionalized membership to formalize commitments and ensure long-term engagement. Leveraging existing mechanisms within member organizations was seen as an effective way to build synergies, avoid duplication of efforts, and maximize complementarities. Open-source technologies were encouraged to promote accessibility and innovation, and achieving early wins was highlighted as a strategy to build confidence and momentum among members.

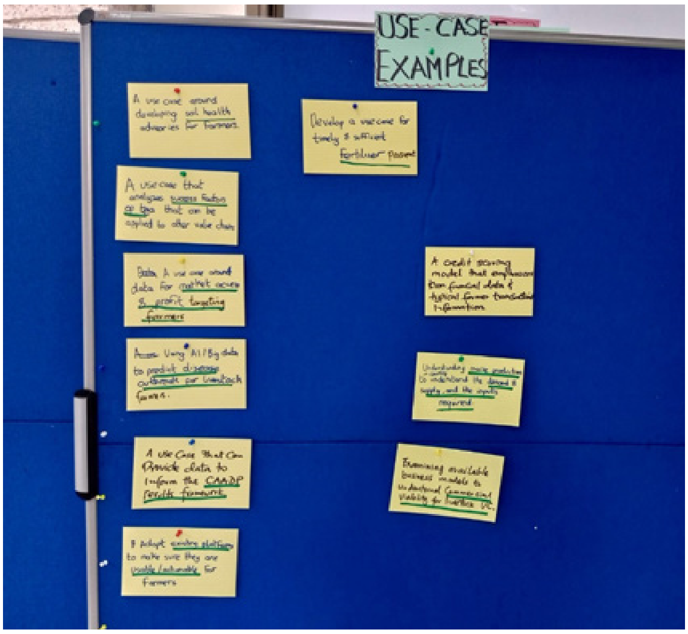
Ultimately, the proposed practices aim to create a CoP that is inclusive, collaborative, and impactful, delivering tangible benefits to stakeholders while driving sustainable improvements in data quality, sharing, and application.

3.3: Priority Data Driven Use Cases

Participants came up with several examples of use cases that reflect a wide range of data-driven initiatives, emphasizing actionable insights, farmer-centric approaches, and solutions to systemic challenges in agriculture. The brainstorming session underscored the value of aligning these efforts with the needs of stakeholders while leveraging collaborative frameworks for broader impact.

Use Case examples highlighted;

1. Developing Soil Health Advisories for Farmers: Creating guidelines to help farmers manage soil health, improving fertility, sustainability, and productivity for better crop yields.
2. Analyzing Success Factors of Tea to Apply to Other Value Chains: Investigating the successful practices in the tea industry and adapting those strategies to enhance the effectiveness and profitability of other agricultural value chains.
3. Data for Market Access and Profit Targeting Farmers: Using data to help farmers access markets more efficiently and maximize profits by understanding demand, pricing trends, and positioning products effectively.
4. Using AI/Big Data to Predict Disease Outbreaks for Livestock Farmers: Applying AI and big data analytics to predict potential livestock diseases, enabling farmers to take preventative measures and protect their herds.
5. Providing Data for the CAADP Results Framework: Using data to support the Comprehensive Africa Agriculture Development Programme (CAADP) by informing agricultural policies and tracking progress towards CAADP goals.
6. Adopting Existing Platforms to Make Them Usable for Farmers: Improving and adapting current platforms to make them more practical, accessible, and useful for farmers, ensuring they can fully benefit from the available tools.



"Use case examples from group discussions"

7. Developing Use Case for Timely and Sufficient Fertilizer Procurement: Creating systems to ensure farmers can access the right amount of fertilizer at the right time, preventing shortages or delays that could impact crop production.
8. A Credit Scoring Model Emphasizing Financial Data and Typical Farmer Transaction Information: Developing a credit scoring model based on financial data and common transaction history of farmers, making it easier for them to access loans and financial services.
9. Understanding Maize Production to Analyze Demand, Supply, and Required Inputs: Analyzing maize production patterns to understand the demand, supply, and necessary inputs (like seeds and fertilizers) to optimize production and meet market needs.
10. Examining Available Business Models for Livestock Value Chain Commercial Viability: Reviewing business models in the livestock value chain to assess their commercial viability, ensuring sustainability and profitability for all stakeholders involved

SESSION 4: MANAGEMENT AND GOVERNANCE:

Dr. Precious presenting

The governance session provided an opportunity to introduce participants to the foundational elements of the Community of Practice (CoP) and to begin a co-creation process for key governance documents. Dr. Precious Zikali, Senior Economist, The World Bank Group, outlined the initial framework and emphasized the importance of members input in shaping the governance structure.

Three draft documents were presented as part of the governance package: the Community Charter, the Data Sharing Agreement, and the Data Sharing Guidelines. These documents are not finalized but intended to serve as starting points for discussion and refinement.

The Community Charter aims to establish the foundation of the CoP by articulating its mission, objectives, and operational model. Key areas of focus include membership, eligibility, benefits, and responsibilities and the proposed operating structure, which features a Steering Committee, a Secretariat, an Advisory Committee, and thematic working groups. The Charter also outlines a Code of Practice to promote trust, transparency, collaboration, and inclusivity within the CoP. Additionally, it addresses risks and proposed strategies for mitigation.

The Data Sharing Agreement provides a framework for facilitating data sharing among CoP members while respecting organizational policies and legal obligations. It includes guidelines on conditions for data sharing, intellectual property rights, and anonymization requirements. The agreement also addresses rules for publication and disclosure to ensure alignment with both institutional and legal standards.

The Data Sharing Guidelines are intended to ensure compliance with legal and industry standards for data sharing. They address topics such as open data access principles, the infrastructure needed for effective sharing, and incentives to encourage participation and prevent disengagement. The guidelines also explore the potential for data commercialization and revenue generation within the CoP.

CLOSING REMARKS

Joshua Ariga, Senior Program Officer, Gates Foundation shared critical insights into the challenges and opportunities presented by the issue of data. He noted that historically, the lack of sufficient and reliable data has hindered impactful investments across Africa, including Kenya. In response, the Gates Foundation undertook a strategic shift, revisiting its approach to ensure investments are aligned with government priorities and anchored in robust data and evidence.

Joshua discussed the Foundation's evolving investment strategy, highlighting a shift from a broad, generalized approach to one that emphasizes targeted, data-informed decision-making. He explained that the previous strategy of spreading resources across multiple areas often resulted in diluted outcomes. To enhance impact, he noted that the Foundation has embraced a more focused approach, collaborating with governments to identify and prioritize opportunities that align with national development goals and have the potential for significant returns.

Drawing on insights from data analysis, Joshua emphasized the importance of tailoring investments to sub national contexts. For example, in Kenya, data has revealed opportunities to enhance agricultural productivity in certain regions by introducing innovative solutions, such as improved seed varieties. This approach ensures that investments are directed toward areas with the greatest potential for transformative impact, benefiting farmers, private sector stakeholders, and other actors within the agricultural value chain. By grounding decisions in robust data and aligning efforts with government priorities, the Foundation aims to maximize the effectiveness and sustainability of its contributions.

Joshua emphasized that the data generated and shared through the CoP would not only guide the Gates Foundation's investments but also serve as a critical resource for other donors and development partners. By providing actionable insights, the initiative would enable these partners to focus their efforts more effectively, fostering greater impact across the sector.

Joshua commended SAFIC for successfully convening a diverse group of stakeholders and underscored the critical role of the CoP in promoting alignment and driving progress.

He noted the government's readiness to leverage actionable data and analytics, particularly in sectors like livestock and crop production. He noted that this enthusiasm presents an opportunity for the CoP to unite stakeholders around shared goals, establish clear collaboration mechanisms, and harness collective expertise.

To ensure the CoP's sustainability and long-term success, Joshua highlighted two essential enablers on Regular Engagement such as annual or bi-annual meetings, to maintain momentum and address challenges in a timely manner and Sustainable Fundraising where he encouraged the CoP to develop long-term funding strategies.

Joshua reaffirmed the Gates Foundation's commitment to supporting initiatives that align with local priorities and are informed by ground-level expertise. He emphasized that the Foundation does not impose solutions but instead collaborates with stakeholders who possess deep knowledge of the local context and can identify effective ways forward.

In closing, Joshua expressed his enthusiasm for the workshop's discussions and commended the evident commitment among participants. He urged the CoP to build on the momentum, cultivate trust, and continue strengthening partnerships. By doing so, the CoP could unlock the full potential of data-driven solutions to transform Kenya's agricultural sector, creating a ripple effect of positive change across the ecosystem.

Strathmore UNIVERSITY BUSINESS SCHOOL

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