

research program on Livestock

More meat, milk and eggs by and for the poor

Digital partners due diligence report for Uganda pig value chain

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CGIAR is a global partnership that unites organizations engaged in research for a food-secure future. The CGIAR Research Program on Livestock provides research-based solutions to help smallholder farmers, pastoralists and agropastoralists transition to sustainable, resilient livelihoods and to productive enterprises that will help feed future generations. It aims to increase the productivity and profitability of livestock agri-food systems in sustainable ways, making meat, milk and eggs more available and affordable across the developing world. The Program brings together five core partners: the International Livestock Research Institute (ILRI) with a mandate on livestock; the International Center for Tropical Agriculture (CIAT), which works on forages; the International Center for Research in the Dry Areas (ICARDA), which works on small ruminants and dryland systems; the Swedish University of Agricultural Sciences (SLU) with expertise particularly in animal health and genetics and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) which connects research into development and innovation and scaling processes.

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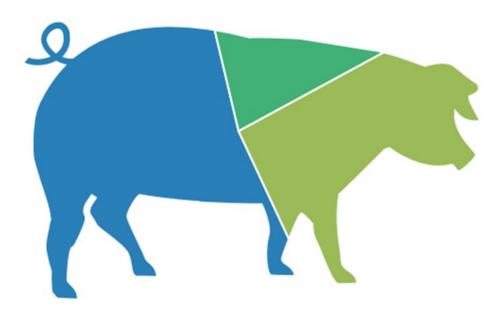
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Table of Contents

Methodology	1
Partner 'A' due diligence report	2
Partner 'B' due diligence report	3
Partner 'C' due diligence report	4



Methodology

This planning and due diligence exercise adopted a purposive sampling of potential digital partners operating in Uganda and providing solutions that seemed useful in the pig value chain work. The potential partners were identified through a reference process from ILRI networks in Uganda. The team identified six technology partners with whom a detailed due diligence process would follow.

The purpose of the due diligence process was to determine how aligned the various solutions were to the pig value chain goals and objectives towards creating an ecosystem of digital services aimed at improving the pig value chain and enhancing efficiency of the various actors.

The tool used was a Planning and Due Diligence tool adapted from <u>The Digital Technology for</u> <u>Resilience Planning and Due Diligence Tool</u> which was developed by FHI 360, with grant funding from the Rockefeller Foundation. The tool provided a framework on how to conduct a basic level of due diligence on potential digital technology providers. The tool also provided a framework to help identify what technologies to use instead of relying on an ad hoc process.

The interview process was done by a team of four drawn from ILRI and the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). Six interviews were done with the six solution providers in their premises and all the scores aggregated to populate the results used to write this report.

Since the process of recruiting these partners is not complete, the solution providers have only been identified with alphabets A, B, and C to protect the other participants. Only the reports for the shortlisted partners were included in the summary report.

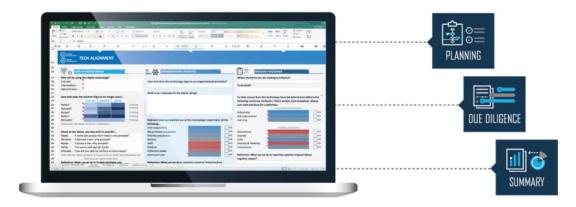


Photo: FHI 360

Partner 'A' due diligence report

Company Name: A

Assessors Name: Wonekha Deogracious (MAAIF Entebbe), Lawrence Mayega (MAAIF Masaka), Nsubuga David (MAAIF Entebbe), Edwin Kang'ethe (ILRI)

Assessor Date: 25 November 2019

Opportunity

Partnering with 'A' provides an opportunity for extension and village agents to be trained on using the calculator app to advice farmers.

The solution is a mobile based app that computes least cost and balanced feed for livestock based on local feed ingredients available to the farmer.

We propose to use the app for training extension staff and village agents on formulations using local feed ingredients and not concentrates.

The solution can help change the mind-set on pig feeding from belief that pigs eat too much and shift practise from reliance on feed concentrate to use of local ingredients with the similar outcomes— growth rate, weight, fat etc.

Due diligence summary:

Key positive factors:

- Reduced cost of feeding pigs
- Better weight gains per unit cost
- Increased knowledge on feeds and feeding by farmers, extension staff
- Increased production of pigs
- The calculator uses local feed ingredients to provide a feeding regime and not necessary on concentrates that can be too expensive for our target farmers
- Use of agent model to help farmers compute feeding regimes strengthen current systems
- Private sector driven since the technology owner is a social enterprise

Key negative factors:

- The solution works on android powered phones. The extension and village agents will need to have this type of phones to help the farmers with feeding regimes.
- The solution is best implemented through facilitation by super users (literate farmers with android phones), village agents, and extension staff at the district extension office.

Assessors recommendation:

- Partner with 'A' on training district extension staff as trainer of trainees who will then train village agents and farmers on how to use the application and its benefits
- The agents can help the farmers formulate feeding regimes from their accounts and save the farmer the need to have own accounts since the feeding regimes are not generated every day.

Discuss with the solution provider on related costs during the upcoming workshop.
Review Committee Members: Ben Lukuyu, Emilly Auma, Iddo Dror

Partner 'B' due diligence report

Company Name: B

Assessors Name: Wonekha Deogracious (MAAIF Entebbe), Lawrence Mayega (MAAIF Masaka), Nsubuga David (MAAIF Entebbe), Edwin Kang'ethe (ILRI)

Assessor Date: 26 November 2019

Opportunity

The provider has a solution that connects actors in the agricultural market. The solution does farmer profiling from which it generates inputs and product demand reports and facilitates record management at cooperative or group level.

The solution aggregates farmer demand for inputs and delivers the same at below market rate from a quality assured source thereby linking farmers and groups to cheaper and quality assured inputs and services.

The solution overall strengthens the pig value chain system

Due diligence Summary:

Key positive factors:

- Aggregates traders and farm producers thereby creating a marketplace where farmers have a ready market with competitive pricing and the traders have ready produce
- Aggregates inputs demand from farmers and provides at below market price from credible suppliers
- Solution works through village agents with over 600 active field agents
- Farmer doesn't pay to use the solution

Key negative factors:

- Uneducated farmers will find it difficult to use on their own but the business model uses village agents thus addressing the illiteracy concerns.
- The solution is best implemented through facilitation by super users (literate farmers with android phones), village agents, and extension staff at the district extension office.
- They are just starting in pigs but have 5-year experience in crops.

Assessors recommendation:

- Partner with B to roll out the solution in the project area as the main farmer profiling provider.
- The solution currently uses extension agent as point of access of the application thereby strengthen its adoptability since agents get a commission from the inputs sales and farmers are not challenged by technology illiteracy.
- Mobilise farmers into village groups for aggregated registration and ordering of inputs
- Consider adding weight equipment for the village agents to facilitate weight measures from pigs
- Integrate the 'B' service to the government extension services by including the extension staff as AKORION affiliated agents

Review Committee Members: Ben Lukuyu, Emilly Auma, Iddo Dror

Partner 'C' due diligence report

Company Name: C

Assessor Name / Date: Wonekha Deogracious (MAAIF Entebbe), Lawrence Mayega (MAAIF Masaka), Nsubuga David (MAAIF Entebbe), Edwin Kang'ethe (ILRI)

Assessor Date: 25 November 2019

Opportunity

The solution is gross margin calculator (GMC) for use in the farm to help the farmer understand the business side of their enterprise. The GMC improves the farmers' visibility on income from his piggery.

The solution can be facilitated by village agents trained as an intermediary to disseminate features and benefits and support in its use by small scale farmers including the uneducated farmers.

Due diligence summary:

Key positive factors:

- The solution is free at the point of delivery
- GMC is an existing software that is ready for use and has been used on other livestock value chains

Key negative factors:

- Not currently tested on pig vc and provider not working in our project areas

Assessors recommendation:

- Engage the solution provider on condition that the GMC is customised for use in pig enterprises including by small scale farmers.
- Work with the provider and develop an implementation that rides on existing extension and village agent networks to support the farmers.
- Quantify cost of the capacity building needed for implementation in the forthcoming workshop.

Review Committee Members: Ben Lukuyu, Emily Auma, Iddo Dror