

# Uganda



## Finance, Information and Risk Management (FIRM)

### Executive Summary

November 2016

#### Introduction

Uganda agriculture is dominated by small-scale farmers, of which the majority owns less than two acres of land. Despite a good agro-climatic environment, yields in Uganda are low. Farmers rely on self-propagated seeds and outdated production and storage technologies. In Uganda, agriculture is not managed as a business by the majority of farmers.

This situation leads to a deadlock: small, non-commercial farmers are not attractive customers for financial institutions, as well as information, input, or equipment providers. Due to farmers' limited access to information, finance and markets, they cannot professionalize their farming business and manage agricultural risks. This keeps their risk exposure high, to which farmers respond by remaining diversified and relying on subsistence farming. The result is a poor performing sector which is more exposed to shocks like droughts than necessary.

#### FIRM

FIRM (Finance, Information and Risk Management) will break this deadlock by applying a holistic approach to service delivery and risk management for farmers. FIRM facilitates business between farmers and banks, insurers, input & equipment providers or extension services. FIRM enables that by sharing farmer profiles and risk information between farmers and their business partners. The platform also facilitates transactions by introducing a debit card.

#### The platform

At the core of FIRM is an information platform provided by FIT Uganda called FARMIS. The platform collects agronomic and marketing information from farmers. The system encourages farmers to keep records and to base their business decisions on improved planning. This is enhanced with risk information based on the Agri Risk Analyzer, which provides a risk assessment to farmers and provide insight in which risk mitigation solutions are optimal (given costs and benefits) for each farmer.

The platform will be accessible for farmers, banks, insurers, input & equipment providers and the public sector. Based on farmers' preferences, information will be shared with these partners to facilitate transactions. For example, if a farmer wants to receive a loan, banks can use the profile and risk assessment to determine whether the farmer is eligible for a loan and make a specific offer. Insurance companies can identify (groups of) farmers which can be insured. Irrigation equipment providers can identify which farmers will benefit from irrigation (based on the risk mitigation analysis). These actors can also cooperate to provide packaged services like irrigation loans, or credit-life insurance.

#### Upward spiral

The FIRM system creates an upward spiral: farmers can take informed decisions based on sound information on markets and the risks they are exposed to. Farmers are encouraged to invest more into their business and to actively manage their risks, for example by purchasing insurance, irrigation or improved seeds.

This management of risks makes farmers more willing to borrow and more attractive to financial institutions. The FIRM platform keeps marketing, distribution and operational cost low for financial institutions. Farmers can finally access loans to further increase productivity, lower risk exposure, and improve their market position.

#### Public-Private Partnership

**Infotrade:**

lead partner, operating the FIRM system.



**Agri Risk Analyzer (ARA):**

providing risk analytics.



**FINCA:**

partner bank providing credit to eligible farmers.



**Jubilee:**

partner insurance company, providing insurance to eligible farmers.



**Makerere University:**

development partner for ARA, technical support & training.



**MAAIF:**

Public partner, extension services.



**PARM:**

facilitator, stakeholder management.





## FIRM Stakeholder Benefits

### Farmers

- Improve farming business by using market & weather information and agronomical knowhow;
- Improved risk management through insight in the risk profile and mitigation solutions;
- Cashless transactions with a debit card;
- Linkage to banks, insurers, input & equipment providers, extension services.

### Input & Equipment providers

- Access to a pool of farmers profiled and pre-screened on risks;
- Significant reduction of marketing, distribution and operational cost;
- Risk scores and mitigation advice stimulates demand for risk solutions like irrigation.

### Banks & Insurance

- Access to a pool of farmers profiled and pre-screened on creditworthiness;
- Significant reduction of marketing, distribution and operational cost;
- Improved risk management due to risk scores and risk mitigation advice on farmer and portfolio level;
- Enhanced cooperation between credit and insurance providers.

### Public Sector / Extension Officers

- Platform to deliver public services, such as information and extension;
- Improved insight in the risk profile of farmers and the ability to actively reduce risk on local and regional level;
- Staff trained on risk management.

## Roadmap & Activities

The FARMIS platform is already in operation, and facilitates record keeping for farmers and the dis-semination of weather and market data. The FIRM project focuses on enhancing FARMIS with risk analytics. For Uganda, specific risk information has to be collected, verified and modelled. On the platform, linkage to banks, insurers, input & equipment providers and the public sector has to be created and managed. This will spark product development and innovation of marketing and distribution by the FIRM partners. Another important activity is the roll out of the debit card which farmers will use for transactions.

FIRM will be implemented with through a network of Production Information Advisors (PIA's), which will advise and support farmers, in coordination with extension services.

## Business model

FIRM's business model is based on income from farmers (an annual subscription fee) as well as income from partners receiving farmer information (a pay per view model). The major share of investment is required for development expenses during the first three years of operation.

## Outcome and Impact

### Market reach

FIRM intends to reach 170,000 farmers after five years (by the end of 2021). Of these farmers, 60,000 have accessed loans, 13,500 have access to insurance, 34,000 have received capacity building and 60,000 specific risk management advice.

### Impact

FIRM projects the following impacts:

- Improve farmers' resilience and an increase in income of USD 135 per farmer by higher yields, gained due to improved access to weather information, enhanced risk management and access to finance;
- Better sales prices due to access to market information, of USD 11 per farmer;
- A reduction of 4 percent point in interest rates based on the cost savings and improved risk assessment FIRM facilitates for banks. This translates to USD 21 per farmer;
- Discounted offers from input and equipment providers due to cost savings in their marketing and distribution, resulting in an average saving of USD 10 per farmer;
- Reduction of post-harvest losses due to access to market information and credit for financing post-harvest handling and storage. This counts for USD 25 per farmer.

Overall, the projected impact of the FIRM project is an increase of income of USD 31m for all farmers combined over the project period.

## Funding Need

FIRM needs funding to overcome the (most-ly one-off) development cost. The funding requirement is USD 770,000, mostly to be spent on (further) development of the FARMIS platform, field network and the Agri Risk analyzer.



### PARM Secretariat International Fund for Agricultural Development (IFAD)

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