UNIVERSITY OF ICELAND

Project Proposal

EMPOWERING RURAL WOMEN SMALL SCALE FARMERS WITH MOBILE PHONE SKILLS TO ACCESS MARKET INFORMATION

IN BUGISU SUB-REGION, EASTHERN UGANDA

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Final Assignment submitted to United Nations University Gender Equality Studies and Training (UNU-GEST) Programme

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ACRONYMS

ADB	African Development Bank
CBO	Community Based Organization
CKWs	Community Knowledge Workers
DANIDA	Danish International Development Assistance
DFID	Department for International Development
EU	European Union
FAO	Food and Agricultural Organization
GOU	Government Of Uganda
GTZ	German Technical Co-operation
IFAD	International Fund For Agriculture Development
NAADS	National Agricultural Advisory Services
NAP	National Agricultural Policy
NDP	National Development Plan
NGO	Non-Governmental organization
NLP	National Land Policy
UNDP	United Nations Development Programme
UNHS	Uganda National Household Survey
OECD	Organisation for Economic Co-operation and Development
PSR	POVERTY STATUS REPORT
SACCOS	Savings and Credit Cooperatives Organization
UBOS	Uganda Bureau Of Statistics
UCC	Uganda Communications Commission
USAID	United States Agency for International Development

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ABSTRACT

The skyrocketing of mobile phone ownership in low and middle-income countries as reported by Global System for Mobile Association (GSMA) provides an opportunity for farmers to access information and practical advice on the farming and livestock strategies when and where they need it (GSMA, 2010). Empowering women famers in the rural areas with the mobile phone skills represents an enormous social and commercial opportunity in improving standard of living for members of society (GSMA, 2010).

Uganda´s current population is at 34.9 million people with the proportion of female and male at 17.9 female and 16.9 male million respectively (NPHC, 2014) and the mobile phone access has also reached a record 52.3 percent as reported by Uganda Communications Commission (UCC, 2014), like in many other African countries, such developments present unique challenges that continues to stress the government structures and agencies (Brandie Lee, 2011).

Uganda´s biggest population (87%) still resides in rural arears, 85% of whom are involved in subsistence agriculture (FAO, 2010). Nationwide, 90% of all rural women work in agriculture (53% of rural men do) with mixed farming systems as main sources of livelihood (FOWODE, 2012). In Uganda, social-cultural stereotypes are still the main constraints to women´s full participation in the political and economic empowerment (FAO, 2009). The government policies on agriculture aiming at promoting priority areas of the National Development Plan (NDP, 2010/11–2014/15) and bridging the equity gap in the agricultural sector is undermined by the persistent of poverty in the rural communities. This negative trend is likely to continue if key constraints to agricultural information and extension service to small-scale rural farmers are not addressed appropriately.

The project intends to pilot the use of agricultural mobile phone apps for rural small-scale farmers as alternative means to access agricultural information and extension services and to link to potential traders to buy their produce. The main goal is to improve livelihoods of twenty thousand rural small-scale farmers both men and women selected from three districts of Mbale, Manafwa and Bududa with sustainable incomes to benefit their families and the communities and reduce the equity gap by at least 15% within the period of five years. It is expected that the success of the pilot mobile phone project will lay ground to expand similar services e to other districts country wide.

The project will use the gender participatory approach with the aim of better benefit sharing for both men and women. The expected outcome is reduced household income gaps in rural small-scale farming communities in Mbale, Manafwa and Bududa districts in Bugisu sub-region in Eastern Uganda.

1.0 BACKGROUND TO THE PROJECT

In the last two decades the government of Uganda has been focusing on the economic diversification for sustainable economic development and transformation of the agricultural sector by focusing on extension service delivery under the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and the National Agricultural Advisory Services (NAADS) at different administrative levels amidst many institutional constraints such as weak research-extension-farmer linkages, non-participatory extension services, high level bureaucracy, corruption and persistent poverty especially in the rural communities with farmers unable to access information and skills of productive enhancing technologies (NAADS, 2011).

There have been additional major steps to transform Uganda into a digital economy (ICT Policy, 2007) specifically in the telecommunications sector and the media in general. Nonetheless, Uganda´s biggest population of about 87% still reside in rural arears, 90% of whom are involved in subsistence agriculture (FAO, 2010). Nationwide, rural women are more involved in mixed farming systems as main sources of livelihood (FOWODE, 2012) and continue to suffer from social-cultural stereotypes and discrimination as main social constraints to equitable access to opportunities, resources and services UN-Women (2011).

The broader focus of the government now is to achieve the Vision 2040, the National Development Plan (2010/11 -2014/15) whose main aim is "A transformed Ugandan Society from a Peasant to Modern and Prosperous Country within 30 years" and agriculture is at the center of this vision, given that over three quarters of the country´s population is engaged in agriculture (NAP, 2013).

To this end, the government has initiated a number of programs to promote rural small-scale subsistence farming, to increase rural production, create employment and improve income levels. Furthermore, the government also recognizes the need for of use science and technology, improved agricultural technologies, improve farming practices, appropriate value addition technologies and market linkage by providing better infrastructure, especially in rural areas and this is clearly scoped out in the National Development Plan (NDP). Therefore, technology accompanied by skills development is critical for obtaining the desired improvement in the social-economic status of the rural population, especially in the development of rural small-scale farming practices.

Generally, the agricultural sector in Uganda comprises mainly subsistence and employs about 90% of the largest proportion of the workforce, making it the dominant economic activity in the country (UBOS, 2014). Small-scale farming which is largely in rural areas, has the potential to contribute significantly to the transformation of the rural economy in Uganda. Support to small-scale farmers has demonstrated a very rapid payback period, which can help the poor, especially rural women to generate income and bring about improved livelihoods. The implementation of projects such as National Agricultural Advisory Services (NAADS) have demonstrated that there are substantial opportunities to increase incomes in rural households from investing in small scale agricultural processing and adding value to primary products. Therefore, the proposed project seeks to improve

livelihood and create sustainable income for selected small-scale farmers especially women in the district of Mbale, Manafwa and Bududa by training them on how to use mobile phone agricultural applications to access market information and extension services, a key element in stimulating growth and reducing poverty among the rural population.

Because of the implementation of the NAADS program by government country wide, rural women farmers are now very aware of the potential for high income generation in small-scale farming (Buyinza, et. al., 2015). NAADS program is applauded for the methods used in the project such as training of individuals and groups, creating demonstration farms, model farmers, radio outreach programs and farm visits.

Cases of local technology innovations have been reported among farmers in Eastern Uganda. For example in Manafwa district, farmers cultivating in the highland and midland farming landscape levels constructed a soil and water conservation system. Other examples of such local innovations include: use of red pepper and ash to prepare local pesticide to control banana wilt; modification of grafted oranges to lemons root stock – to increase market value. All these innovations show additional demand for support in improving small-scale farming practices and access to efficient agricultural information. Such innovations are promoted through training and farm demonstrations.

Cases of local technology innovation were reported among farmers. Such innovations are promoted through training and demonstrations on innovators' farms. For example construction of soil and water conservation using stone embankments was evident among farmers cultivating in the highland and midland farming landscape levels in Manafwa district. Other examples of local innovation include: use of red pepper and ash to prepare local pesticide to control banana wilt; modification of grafted oranges to lemons root stock–to increase market value (Buyinza, et. al., 2015).

Therefore, a little push into full integration of mobile phone applications to provide affordable and the much desired market information and extension services as well as linking to markets and value addition of farm produce is indeed timely, desirable and deserving for the proposed project.

1.1 SOCIAL-CULTURAL ASPECTS

1.1.1 Social-cultural stereotypes

Social-cultural stereotypes are still the main constraints to women´s full participation in the spheres of political and economic empowerment in Bugisu sub-region, in particular, and indeed in Uganda as a whole (FAO, 2009). According to the poverty status report (2014), women in Bugisu sub-region have not benefited as much as men from the reduction in poverty levels (PSR, 2014). Mostly because women do not have as many opportunities as men for social and economic development, especially in rural areas. Secondly, the division of labour within the households still places women in the subsistence agriculture with very little opportunities for commercial production largely

because they do not own land onto which they can practice commercial farming. The situation in the rural areas is even more complex (GEF, 2014).

For example, women culturally are responsible for ensuring household food security, most of the land is cultivated by women. However, whereas women focus on food crop production in the low lands of Bugisu, men concentrate on cash crop production, particularly coffee and trees for timber in the higher or upper parts of the mountains. Women collect firewood from the mountain tops, often encroaching on protected areas. With the growing population, the search for food and fuel wood production is increasingly forcing movement into the upper slopes. Unfortunately, most of the land is culturally owned by men, which skews decision making on which crops or trees to plant as the decision lies with the men (GEF, 2014).

1.1.2 Women´s Land and Property Rights

Article 237, of the 1995 constitution provides that all land belongs to the people of Uganda and shall vest in them in accordance with land tenure system of customary, freehold, leasehold and mailo (plot) or private land (Constitution, 1995). However, given that about 80% of all land in Uganda is held under customary tenure system, the customary rules provide security of tenure for landowners and discriminate against women. Generally women are unable to own or inherit land under the customary land tenure system and they are not economically endowed to purchase land rights in the market.

GoU attempted to redress this situation by outlawing discriminatory cultures, customs and practices that discriminated against women in matters of access, use and ownership of land and requiring spouses to consent to transactions involving family land in the 1995 constitution, but the implementation and enforcement has not been effective (Constitution, 1995). Instead cultural practices and customs have continued to support the transmission of land to men in inheritance, as women´s inheritance rights to land are tenuous and at the mercy of their male Relatives. In 2013, the Government formulated a national land policy to provide a framework to sort out issues surrounding land in national development, ownership, distribution, utilization and controls among other things to try and harmonize the diverse views on historical land injustices such as land management and land use (NLP, 2013).

1.2 STAKEHOLDER ANALYSIS

The project will be executed by the district local government as implementing partners on behalf of the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and the Government of Uganda. MAAIF is a national focal point for efficient, sustainable and timely market information systems for farmers, traders and processors and will continue to play that role at the national level.

At district level, the coordination with the range of sector ministries, donors, politicians, CBOs, NGOs, community leaders and other stakeholders will be maintained and coordinated by Inter-District Production Committee (IDPC) to coordinate and monitor all project activities, chaired by

the lead district chairperson. The three district local governments of Mbale, Bududa and Manafwa will be involved at all stages of design and implementation of the project, working with the district technical and planning committees and ensure integration within the district planning and implementation programmes. Existing district structures will be used for constructive planning and trickling down to village levels and the selection of the targeted women groups and organisations.

Existing local NGOs, CBOs and community groups carrying out projects relating to rural small-scale farming and poverty eradication activities will be consulted and engaged during the implementation of the project. Local communities will be engaged strategically in planning and capacity building, and in implementing pilot activities as well as taking into consideration their interests, customs and priorities.

Table 1: Stakeholder´s roles and responsibilities

Name of Organization	Role in the Project
Ministry of Agriculture, Animal Industries & Fisheries (MAAIF)	Project lead and the national focal point for efficient, sustainable agricultural activities, will coordinate with other government sector ministries, district local governments, donor agencies, community organisations and private projects to ensure sustainability and to co finance the project
District Local Government (DLG)	To be involved in all stages of design and implementation working through district focal points, ensure integration within the district planning and implementation of programmes
Makerere University, School of Women and Gender Studies (SWGS)	To provide expert knowledge, research and training, working through all necessary structures, committees and project focal points
Inter-District Production Committee (IDPC), chaired by the lead district chairperson	Provide guidance and ensure policy and technical consistence of actions, evaluate consultancy reports Monitor project and ensure it complements with the government national development plans
NGOs, CBOs and Local community teams	To be engaged during the implementation of the project, to identify the community groups to be targeted by the project interventions and over see some parts of the project implementation
Donor Agencies	To engage with the lead ministries, partners, provide finances and ensure sustainability. Evaluate and assess project success and recommend action points
Service providers (Esoko, Microfinance /Banks, telecos etc.)	To provide the necessary technical and financial expertise throughout the project implementation and support for the mobile applications developed and customized for the project

1.3 SMALL SCALE FARMING

1.3.1 Characteristics and Constraints

Small scale famers are the drivers of many economies in Africa even though their potential is often not very much brought forward (World Bank, 2008). Small scale farmers are defined in various ways depending on the context, country and even ecological zone. Often the term 'small scale' is interchangeably used with 'smallholder', 'resource poor' and sometimes 'peasant farmer'. In general terms small scale farming only refers to the limited resource endowment relative to other farmers in the sector. Farmers own small plots of land on which they grow subsistence crops and one or two cash crops relying exclusively on family labour. Since the late 1970s to mid-1980s many African countries implemented macroeconomic, sectoral and institutional reforms aimed at ensuring high and sustainable economic growth, food security and poverty reduction (AfDB, 2010).

Despite a good number of sound agricultural policies adopted by most of these countries, implementation has always been a problem. The key long standing challenges as highlighted by AfDB, includes; low productivity stemming from the lack of access to markets, credit, and technology, in recent years the unstable food and energy and very recently by the global financial crisis (AfDB, 2010). Nonetheless, institutional advancements, stronger regional and sub-regional organizations, and stronger civil society, community networks and the donor agencies have made governments in Africa more accountable and thus contributed to the impressive economic performance (AfDB / IFAD, 2009 and World Bank, 2009).

Small scale farmers generally cultivate less than one hectare of land, which may increase up to ten hectares or more in sparsely populated semi-arid areas, sometimes in combination with livestock of up to ten animals (Dixon et al, 2003). Farmer´s operations occur in farming systems with the family at the center of planning, decision-making and implementation, operating within a network of relations at the community level.

In Uganda, small scale farming is commonly practiced in rural areas and it constitutes about 85% of the farming community. Farmers always cultivate one or two hectares of land and also own a few heads of cattle. They often produce food crops, fish or farm animals for family consumption (subsistence farming) with very little for sale to earn an income. All farming during the session is done by all family members, particularly the women and children using rudimentary tools like hand hoes.

Like many African economies, small-scale farmers in Uganda similarly face a multitude of challenges which limit their ability to produce for commercial and larger markets. Some of these challenges have been categorized in a FAO report (2010), as development challenges while others are seen as farm level challenges which are more pronounced among the female small scale producers. Notable among these challenges include; limited market information to farmers and lack

of access and control over land as a biggest barrier for women to access credit (FAO, 2010). The other challenges are; poor physical and institutional infrastructure. Most of the rural farmers lack access to proper roads which limit their ability to transport inputs, produce and also access market information. Precisely, lack of assets, information and access to services hinders small scale farmers particularly women in participating in potentially lucrative markets.

1.3.2 Financial Assistance

Although the financial sector reforms introduced by IMF and World Bank in the 1990s allowed the formal and informal credit providers like private banks, micro finance institutions and SACCOS (which emphasize the practice of small-scale savings and lending) to operate in Uganda, access to credit finance in the rural areas remains insufficient and major limitation to particularly rural women farmers due to lack of the mandatory collateral (Nkonya et. al, 2004). Other limitations Nkonya et al. (2004) reported as having an influence to agricultural production were better road networks, marketing systems, better social services in relation to education, water and sanitation and general health. Others include lack of sufficient knowledge about the available financial services, tight repayments schedules, high capital requirements and lack of loans for agricultural purposes.

According to Kataama (2002), the agricultural sector in Uganda uses the group approach to deliver extension services to a wider spectrum of farmers at a low cost even though most groups lack sufficient organizational capacity to manage their activities in a sustainable manner. Group members perceive the structures as a media through which they receive government and non-government interventions but not as a means to solve their problems. The groups have limited cohesiveness and management skills to influence planning and implementation of their activities (Kataama, 2002).

Nonetheless, through several sector ministries and private partnerships, government developed and implemented extension services to rural small-scale farmers through a number of initiatives such as Savings and Credit Cooperatives Organization (SACCOS) that assist rural farmers with some money to meet their urgent farm needs. National Agricultural Advisory Services (NAADS), which seeks to increase farmer's access to information, knowledge and technology through effective, efficient, sustainable and decentralized extension of farm inputs with increasing private sector involvement (Nkonya, E. et. al., 2004).

1.4 POLICY AND LEGAL FRAMEWORK

The Uganda National Development Plan, 2010/11–2014/15 (NDP) priority areas focus on human resources development, infrastructure, science, technology and innovations, and production inputs.

The government policy on agriculture can be realized from various policies, such as the poverty Eradication Action Plan (PEAP), the Plan for Modernization of Agriculture (PMA), the National Agricultural Advisory Services (NAADS), the Rural Development Strategy (RDS), the National

Agricultural Research Policy (NARP) and the Uganda Food and Nutrition Policy (UNFNP). All these policies aim at promoting food and nutrition security and improving household incomes through coordinated interventions that enhance sustainable agricultural productivity and value addition; provide employment opportunities, and promote agribusinesses, investments and trade.

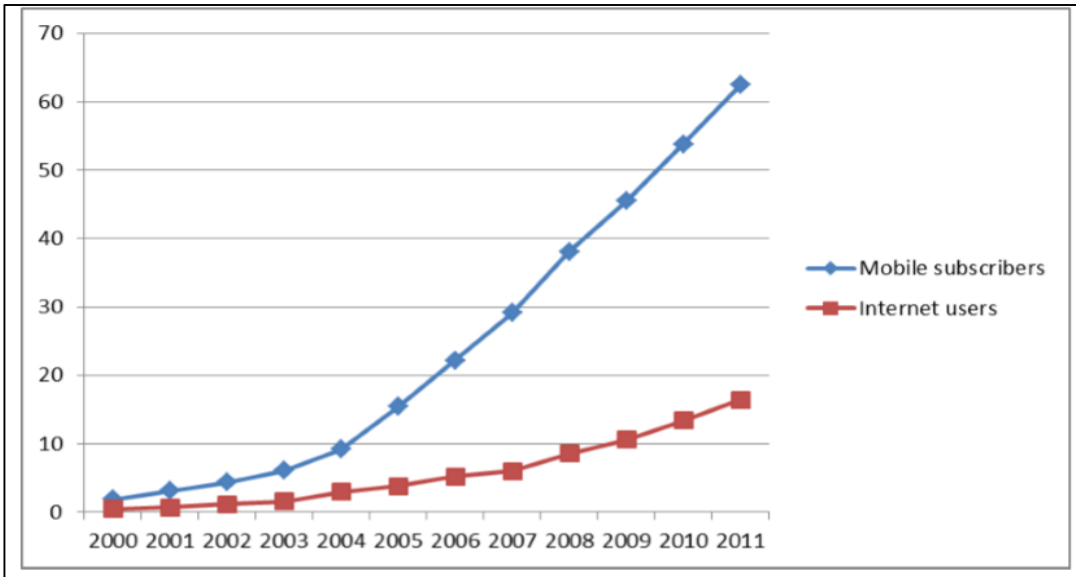
The other legislations that have been found relevant in the implementation of the project and have been referenced include the following;

The Uganda Constitution (1995)
The Local Government´s Act (1997)
The National Agricultural Policy (2013)
The National Development Plan (2010/11 – 2014-15)
The National Land policy (2013)

1.5 THE MOBILE PHONE TECHNOLOGY

According to a recent report by the Global System for Mobile communication Association (GSMA), the mobile industry has scaled dramatically over the last decade with an estimated number of subscribers reaching 3.4 billion by end of 2013 (GSMA, 2014). The African continent has experienced a sweeping landscape of mobile phones at a remarkable rate (World Bank, 2013).

Figure 1: Mobile phone and internet penetration rate in Africa in the year 2000-20011 (per 100 population)



Source: World Bank (2013).

Besides the mobile industry transforming African economies as an innovation platform for new services, GSMA also notes that these innovation ecosystems contribute to empower individuals and the communities in many ways that transform lives (GSMA, 2014). There are undisputable disparities in mobile phone ownership between men and women in the low and middle-income countries and women and girls as marginalized groups within our societies need to be supported and empowered with mobile phone skills to benefit from the growth of the industry. (GSMA, 2010). A GSMA survey (2012) reported the importance of mobile phones to women's wellbeing and findings showed that women felt safer, more socially connected, more confident and had more opportunities for economic development.

Mobile phones are important tools for enhancing the lives of women in low and middle-income countries (GSMA, 2015). The gender-gap survey also reported technical literacy and confidence issues as the barriers to women owning and using mobile phones besides social norms, education and incomes disparities between men and women (GSMA, 2015). According to the GSMA report, empowering women through mobile internet access has more wide reaching benefits to the broader society. Importantly, women have been found to play a key role in the social and economic stability and wellbeing of their families and communities (GSMA, 2014). Women are reported to provide

80 percent of the food (FAO, 2014) and then direct 90 percent of their incomes to their families and communities (OECD, 2015).

Uganda has hit a record 52.3 percent access to mobile phone according to the recent report by Uganda Communications Commission (UCC). The growth, according to the report, translates into more than 19.5 million Ugandans connected to different mobile telecommunications networks with MTN and Airtel having the largest share with more than 17 million people (UCC, 2014). According to UCC, there is need for more innovations to drive development as well as improve household income. Brandie L. (2010), similarly recommends that mobile growth and increase in access for particularly the rural poor, should be used to support sustainable livelihood initiatives particularly for women.

A study carried out by GSMA on Women and Mobile showed that Mobile phones are a tool for economic growth, and that investing in women improves the overall wellbeing of families and communities. That empowering more women with mobile phones can accelerate social and economic development (GSMA, 2014). Mobile phones can be used by both the rich and the poor compared to other ICTs like personal computers, laptops, tablets and others and also mobile phones are cheaper and flexible because it can be used for text and voice and has a two-way communication compared to radio and television (Asheeta *et al,* 2008, Komunte, M *et al,* 2012). Komunte et al., also points out that the adoption and use of mobile technologies can transform business processes, and the way people live, work and play (Komunte et al., 2012).

1.6 SUCCESSFUL MOBILE PHONE AGRICULTURAL PROJECTS

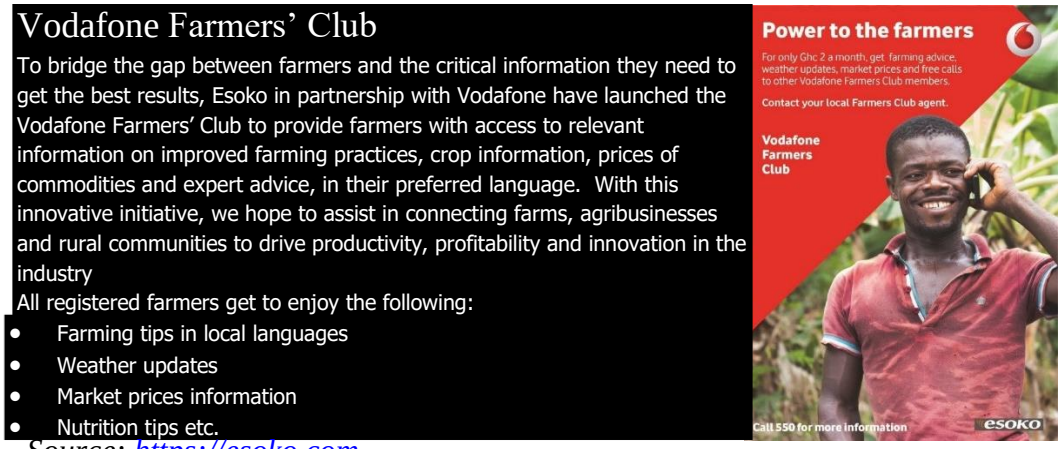
1.6.1 Esoko Network

Esoko is an International network with a platform that provides automatic and personalized price alerts, it buys and sell offers, bulk SMS messaging, stock counts, and SMS polling in all language and currencies. The interesting bit is that the Esoko business model offers strategy, support and training to projects rolling out market information systems for farmers and extension service. The technology is based on market information system (MIS) classified as agricultural informatics or e-agriculture which is centrally managed and secure. Since 2006 when the software project was designed in Ghana, Esoko has collaborated with companies like FoodNet and other big projects in Africa, such as such as (MISTOWA), an abbreviation for Market Information Systems and Trader´s Organisations of West Africa (Esoko, 2010).

The Esoko project was established in collaboration with local farmer/trader partner entities and also provided capacity building skills in computer basics, market information management, and business management to designated managers. The Network (Esoko) currently boosts of profiling about 350,000 farmers in 10 active countries covering about 170 markets in Africa through development partners like UNICEF, FAO, IFAD and major telecommunication companies.

The Esoko model has been tested and proved to be good for local, regional and international agricultural business hence may be adopted or collaborated for within this particular project as well. (https://esoko.com/our-solutions/).

Figure 2: Esoko bridges the gap between farmers and the critical information they need to get the best results, in partnership with Vodafone (in which country, or many countries? when launching the Vodafone Farmer´s Club



Source: https://esoko.com

1.6.2 Application Laboratories (AppLab)

AppLab is an anti-poverty technology program managed by the Grameen Foundation in Uganda with a core aim of helping smallholder farmers to obtain accurate, timely, and actionable agricultural information through a network of community knowledge workers (CKWs) comprising of rural community members. The CKW program was launched in 2009 in Uganda with the ultimate goal of improving productivity by using both the mobile technology and the human networks to help smallholders famers get accurate, timely information to improve their business and livehoods. (CKW 2009-2014).

The CKWs use smartphone applications to give their fellow farmers information on weather and marketing prices and advise on crop and animal care, treating pests and diseases. In Uganda, the Grameen Foundation´s CKW project collaborate with the TECA initiatives of Food and Agricultural Organization of the United Nations (FAO) and share information on agricultural practices from TECA´s knowledge base. Currently the Uganda CKW network covers 15 districts with about 700 CKWs recruited to help smallholder farmers with agricultural information.

AppLab project presents a good opportunity for collaboration and sharing of knowledge and experience on use of smartphone mobile applications for small-scale farmers in Bugisu sub-region. The proximity and closeness of the AppLab project will be helpful in future when rolling out the proposed project in other districts and also an opportunity to share their agricultural knowledge base.

2.0 PROJECT OUTLINE

The outline covers different aspects of the proposed project design. The first section above gives a detailed background of the agricultural sector in Uganda, the past, present and future plans, the legal framework, the technological development and specifically the mobile phone penetration rates at both the global, regional and local levels and finally a brief discussion on some of the successful mobile phone projects that have benefited small-scale farmers especially women. The second sections discusses the justification of the project, problem analysis, strategic interventions that will be applied, the theoretical framework that underpins the project, the gender approach and the implementation strategy. Section three will layout the project overall goal and the main objectives as well as the expected outputs and outcomes. Section four will point out the target group and a brief description about the project location. In section five, I will discuss the activity and resource plan, cost saving measures and risk analysis. Section six will outline the project budget. The monitoring and evaluation matrix is outlined in section seven. Reporting on project issues is discussed in section eight. The project stakeholder analysis and project resource person´s roles are outlined in sections nine and ten respectively.

2.1 THE PROJECT JUSTIFICATION

This section of the proposed project provides an analysis of the problem, the proposed strategic interventions, the theoretical framework that supports the project, the gender approach to be used and a discussion on the capacity of the implementing organization.

2.2 PROBLEM ANALYSIS

Agriculture contributes about 24.8% to Uganda´s gross domestic product (GDP) making it a vital sector in realizing growth and development target of sustainable wealth creation, employment and inclusive growth (MFPED, 2015). Small-scale farming commonly practiced in rural areas constitutes about 85% of the farming community in Uganda and experiences numerous challenges such as limited access to agricultural market information, (FAO, 2010). Even though Small-scale farmers in the villages are still poorly organized, poor market access and difficulties in accessing extension services is aggravated even more during rainy season as most of the roads become impassable (FAO, 2010). Therefore, innovations such as mobile phone market information access and extension service delivery from extension providers to farmers and farmers to service providers makes it easier for farmers to access information and extension services which is much desired as proposed in this project.

Figure 3: A community worker showing a farmer how to use a mobile phone to access market information
Source: Google Images (2016)

The economic prospects of many rural communities in many parts of Uganda, particularly women in small-scale farming are not improving despite considerable gains in productivity of food crops (MDG report, 2010). Most rural farmers especially women are stuck on a production routines, whereby many of them produce homogeneous commodities each single year using traditional and low farm input systems.

In the Beijing Platform for Action (1995), there are two key separate strategic action points; one is intended to promote and support women´s self-employments and development of small-scale entrepreneurs or farmers to improve their situation, increase their incomes and provide household food security and the second emphasizes the need to provide business services, training and access to markets, information and technology, particularly to low-income women.

Figure 4: Rural women farmers carrying their produce to the market on a rainy day
Source: Google Images

Building on this momentum, and recognizing the importance of women in rural small-scale agriculture and fisheries, micro small and medium sized enterprises and in the informal sector as a means to achieving the Millennium Developments Goals, Uganda launched multi-sectoral policies to guide and support small-scale rural agriculture, these programmes includes; the National Development Plan (NDP) as the overall guiding national plan, the Plan for Modernization of Agriculture (PMA) of 2000, the National Agricultural Research Policy (NARP) launched in 2005, the Rural Development Strategy (RDS) of 2006, Prosperity for All (PFA) of 2006, the SME Development policy of 2009 and the Country Agricultural Plan (CAP) launched in 2010. All these policies are guided by government´s macro-economic policy reforms based upon the basic principles aimed at poverty eradication.

Therefore, there is an information gap in terms of markets and learning processes that needs to be addressed given that there are many fragmented small-scale farmers in the rural communities. This project will propose to deploy mobile phones as key because of their accessibility and affordability. There is undisputable rapid increase in adoption and use of mobile phones in agricultural practices by women farmers (GSMA 2014?). However, what is not clear is to what extent women use mobile phones for accessing market information and agricultural extension services. The project will seek to empower both men and women involved in small-scale farming with knowledge and skills of using mobile phones to get market information and other extension services, share knowledge and farming skills with their counter parts and improve their incomes.

According to the Global System for Mobile communication (GSM) Association report, mobile phones have empowered previously disenfranchised communities, bridging the digital divide by brining voice services and internet access to people who were previously unconnected. According to the report, access to the mobile services can improve education, health and agriculture

productivity, as well as creating employment and entrepreneurial opportunities, leading to improved quality of life for individual and their families (GSMA, 2014).

2.3 PROJECT STRATEGY

2.3.1 Project objective, outputs and activities

The overall objective of the project is to improve access to market information and create sustainable livelihoods for small-scale farmers both men and women within the districts of Mbale, Bududa and Manafwa in Bugisu sub-region to benefit their families and the communities.

This will be achieved by training the district local government extension workers and the farmers on how to use mobile phone agricultural applications to access agricultural market information and extension services easily. Farmers and extension officers will be trained and provided with guides and manuals both in English and the local language (lumasaba) for those farmers and extension officers who may be comfortable using the local dialect. The project will align to the existing national legal framework and the district development plans.

The project will use the participatory approach during both the designing and the implementation of the proposed project so that the farmers and the extension officers owns up the project. The following outputs will be achieved;

Output 1: Train farmers appropriate mobile phone skills to access agricultural market information and other extension services easily

This output will aim at helping farmers establish agricultural applications that can provide market information and knowledge on best practices. A team of community knowledge workers (CKW) will be establishment and placed selected sub-counties within the districts to bring together individual farmers or famer´s groups and train them on the mobile phone skills and applications. The CKW team will build on the already existing extension service structures created at the sub-county and will utilize existing farmer groups and associations to reach out to the farmers. The established team will be the first level of contact for the farmers at the sub-county and Bududa district local government will host the project coordination office and utilize the existing extension service channels to link with the selected sub-counties.

Activities under this output will include:

- Stakeholder analysis and development of a communication strategy to ensure effective stakeholder involvement and support various partnerships throughout the project implementation
- Establishment of the Project coordination office to manage the project activities and finalize Terms of Reference (TORs) for all staff and partners.

- Establishment of stakeholders committee that will play an over sight role in aligning the project activities to the district work plan to avert possible activity overlaps.
- Establishment of a work plan to ensure the timely development of the necessary materials

Output2: Promote mobile phone technologies at the district level for effective delivery and monitoring of extension services to the farmers.

The main goal is to build an active participation of farmers in identifying their needs and an effective extension service delivery system that timely responds to farmer's needs. The focus will be on the planning, capacity building of the extension officers and integrating extension systems at into the district plans and implementation.

Activities under this output will include:

- Advertise RFP to procure a project consultant to integrate the mobile phone extension system at the district, provide preliminary on-site training of trainers and installation of the system.
- Develop training and field materials, advertising materials and others
- Roll out training of trainers (TOTs), awareness raising and sensitization campaigns for district local government staff and other project stakeholders to jointly appreciate the objectives of the project.
- Create sustainable communication channels and good working relationships among small-scale famers and buyers, district administration and the central government.

Output3: To create a management information system at the district to store, process and monitor extension service delivery to the farmers through the mobile phone

The aim is to build a simplified and effective system of data collection, storage and disseminating agricultural information and other extension services to farmers.

Activities under this output will include:

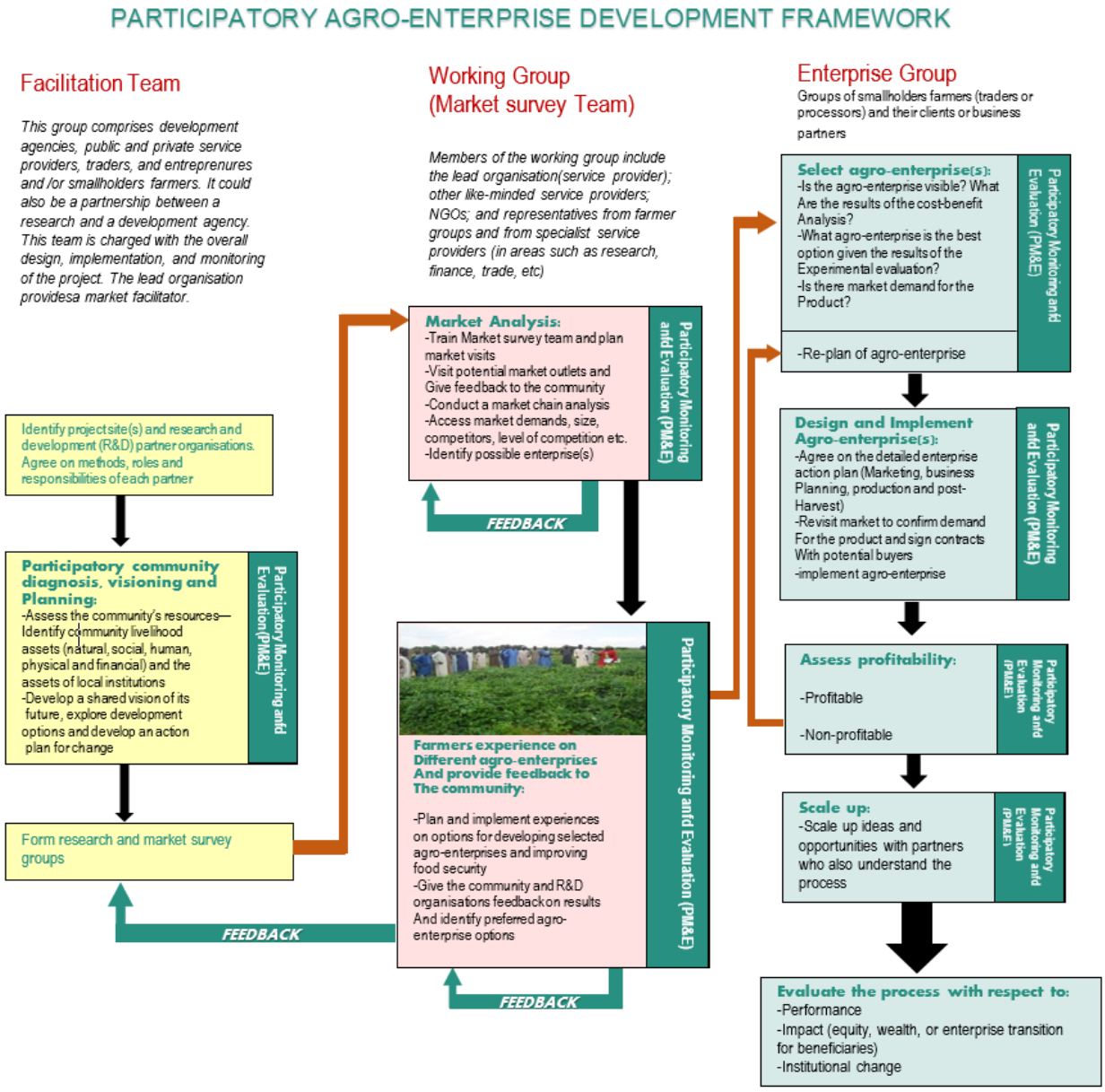
- Create training teams and finalize their TORs and run system tests
- Document new knowledge base and products (leaflets, fliers and message boards)
- Develop data collection materials for the above teams
- Organize a workshop to launch the training of district technical staff
- Update project materials and knowledge management system implemented in the district
- Production of knowledge products in appropriate languages, including lessons learned and best practices from small grant activities and other project activities

2.4 THEORETICAL FRAMEWORK FOR THE PROJECT

Participatory Agro-enterprise Development Approach (PADA)

The project will use the participatory agroenterprise development approach, a strategy that was developed by Centro Internacional de Agricultura Tropical (International Centre for Tropical Agriculture) to address the entrepreneurial development needs of institutions that support rural communities. The strategy provides a stepwise process consisting of methods, tools and learning approaches that can be used to help women smallholder farmer groups to produce goods and services based on market demand using basic marketing and business principles. The strategy has worked in many collaborative projects undertaken over ten years in Latin America, Africa and Asia (USAID, 2006).The PADA approach according to USAID, provides the stepwise procedures for introducing new marketing techniques to a rural small-scale famers. Therefore, it will be appropriate applying this approach while designing and implementing the proposed.

Figure 5: Framework illustrating the usefullness of the stepwise /collective approach to help smallholder farmer groups to produce goods and services basked on market demand using basic marketing and business principles



Source: International Center for tropical Agriculture, ICTA.
Available at (http://ciat-library.ciat.cgiar.org/Articulos_ciat/linkingfarmersenglish_poster.pdf)

The approach is designed in a way that it coordinates all the required stakeholders such as the traders, farmer´s groups and the community-based organisations to ensure that the community benefits from being involved in the approach in a long term. This approach will help by focusing on improving the livelihoods of rural household famers and other beneficiaries. In order to achieve the project goal, there is need to have the support of all actors within the selected local community, and engage them in the planning and design processes, implementation of interventions and activities up to monitoring and evaluation of the project.

2.5 Gender Approach

The participatory agro-enterprise development approach adopted for this project focuses on improving livelihood of rural household farmers. All household members that is women and men, girls and boys are actors in this project. Women and girls make a very large contribution to Ugandan agricultural sector, contributing to about 90% of rural women employment with only 53% of rural men involved (FOWODE, 2012). However, women contribute from a disadvantaged position. For instance, women own less than 10% of productive land in Uganda (Alinyo & Leahy, 2012), a biggest number of rural women and girls are engaged in subsistence farming on small scale while men go for commercialized farming which are a main target of extension services from government.

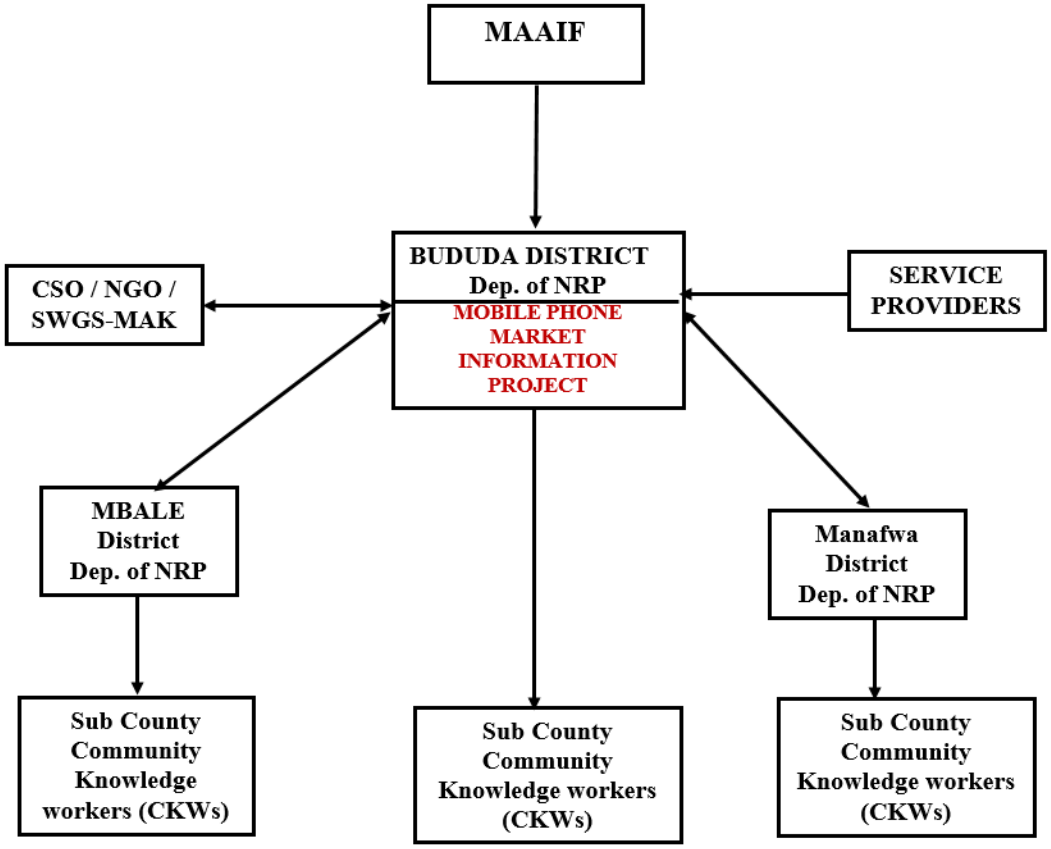
Additionally rural women are economically disadvantaged because of the social-cultural stereotypes that continue to marginalize them, in the market space, rural women have very a low bargaining power over their produce hence they are susceptible to manipulation by middle men who prefer to buy at the farm gates and take advantage of their market ignorance to sometimes set their own prices, a rural woman is also affected by the family power relations such that she is not allowed to make family decisions without consulting her husband so she cannot sell her produce when she wants, even if she sells, she has to declare all the money to her husband for proper planning for the family, and he is not accountable to anyone. Lastly, but not least, rural women lack good marketing and entrepreneurial skills to create good market for their produce.

Therefore, taking all these factors into consideration, the project will adopt a participatory and an all-inclusive approach to engage both men and women in various activities in all stages of the project, with more focus on women and girls taking up lead roles in those various groups.

2.6 IMPLEMENTATION STRATEGY

The project will follow the national implementation procedures, with the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) and the District local government of Bududa (on behalf of Bududa, Manafwa and Mbale) as the national implementing partners. There shall be a memorandum of understanding between the three districts to jointly implement the proposed project steering it through the Department of Natural Resources and Production coordinated by the project manager as illustrated below;

Figure 6: Linkage between MAAIF, Bududa Local Government and other stakeholders in the implementation of the proposed project



3.0 PROJECT AIM

This section will describe the purpose of the project, its expected outcomes and outputs.

3.1 Project Purpose

The purpose of the project is to empower rural small-scale farmers both men and women with sufficient mobile phone skills and knowledge to access sufficient, accurate and timely agricultural extension services for a sustainable livelihood.

3.2 Expected Project Outcomes

When effectively implemented, the project is expected to deliver the following outcomes:

1. Reduce poverty levels for both men and women in Bugisu sub-region by at least 5% at the end of the project implementation as evidenced in national poverty status report.

2. Enhance capacity of farmers to access sufficient, accurate and timely market information and extension services as well as improved food security in rural households

3. Enhance capacity of existing extension structures with a robust mobile phone market information delivery system managed at the district local government level

3.3 Project Outputs

At the end of implementation of the project, the following outputs are expected to be accomplished:

1. Trained farmers appropriate mobile phone skills to access agricultural market information and other extension services

2. Promoted mobile phone technologies at the district level for effective delivery and monitoring of extension services to the farmers.

3. Created a robust district mobile phone market information delivery and management system at the district to store, process and monitor extension service delivery to the farmers through the mobile phone

3.4 Project activities

The software program Logframer was used to group all the planned activities together and define logical relationships among the different levels of objectives and estimate external conditions that are likely to affect the project implementation. **Annex 1** shows the logical framework for the project.

3.5 Project Scope

The Districts of Mbale, Bududa and Manafwa in Bugisu sub-region are the target beneficiaries of the project. These Districts are found at the slopes of Mt. Elgon with an estimated population of 1,057,351(51.7% Females and 48.3% Males), (NPHC, 2014). Over 80% of this population lives in the rural areas and relies heavily on agriculture. Bududa District administration shall coordinate the overall project implementation at district level with support from the Mbale and Manafwa districts and the Project Manager.

3.6 Brief description of Bugisu sub-region

Bugisu sub-region is a region in eastern Uganda that consists of the districts of Bududa, Bulambuli, Manafwa, Sironko and Mbale. The sub-region is home mainly to the Gisu people, also called Bagisu.

This region boosts of very rich culture and agricultural potential. It is prominent in the production of coffee and bananas as main cash crops, maize, potatoes and livestock especially for dairy is also gaining prominence. The average farm size is small about 1-5 hectares.

Livestock are mainly kept for milk and or meat for sale. Mixed farming is the commn means of smallholder farming where majority of the rural women are actively engaged. Rainfall in this sub-region is evenly distributed (1000-1500mm) on soils of medium to high productivity on the slope of Mt Elgon. The sub-region has embarked on improving to large scale farming schemes through the National Agriculture Advisory Service (NAADS) project and other government initiatives that provide farmers with agricultural inputs.

Figure 7: Map of Bugisu Region

The Montane System

This is an ecological zone found at higher elevations between 1500 – 1750m above sea level (MAAIF, Agro-ecological zones). The areas of Mbale, Manafwa and Bududa receive high and effective rainfall and cloud cover. Banana is a major staple as well as sweet potatoes, cassava and Irish potatoes. Arabic coffee is prevalent at above 1600m. Some temperate crops like wheat and barley are grown. High population intensities and intensive small-scale agriculture are common with some livestock (MAAIF, Agro-ecological zones).

Table 2: Summary of agricultural systems in Uganda

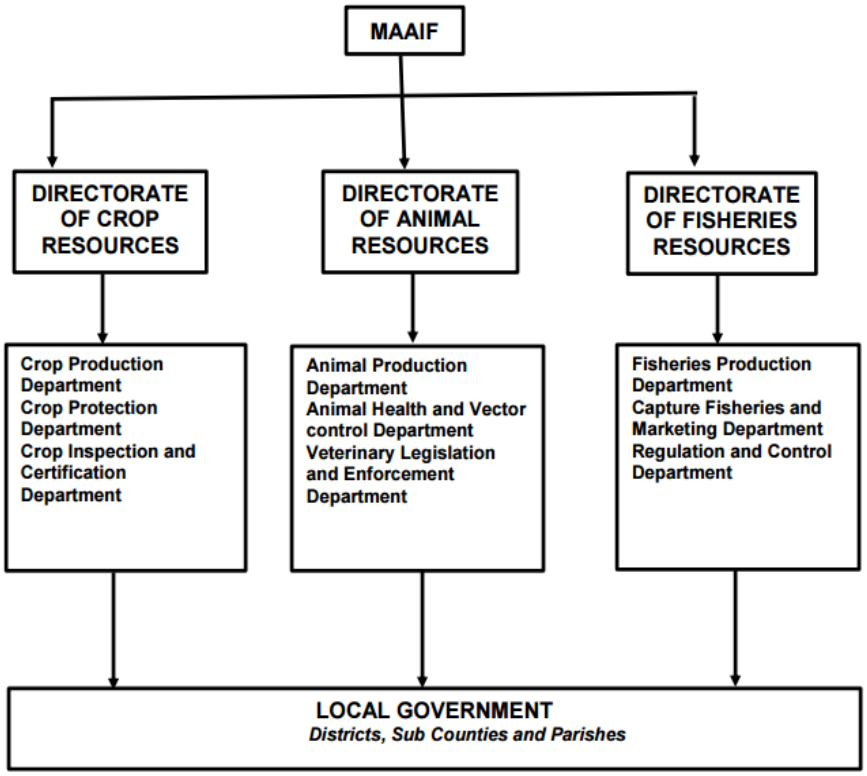
Farming system	Districts
Banana/Coffee System	Bundibugyo, parts of Hoima, Kabarole, Mbarara, Bushenyi, Mubende, Luweero, mukono, Masaka, Iganga, Jinja, Kalangala, Mpigi and Kampala
Banana/Millet/Cotton System	Kamuli, Pallisa, Tororo, parts of Masindi and Luweero
Montane System	Kabale, Kisoro, parts of Rukungiri, Bushenyi, Kasese, Kabarole, Bundibugyo, Mbarara, Mbale and Kapchorwa
Teso Systems	Soroti, Kumi, Kaberamaido
Northern System	Gulu, Lira, Apac, Kitgum
Pastoral System	Kotido, Moroto, parts of Mbarara, Ntungamo, Masaka, and Rakai
West Nile System	Moyo, Arua and Nebbi

Source: Basic facts on agricultural activities in Uganda, MAAIF, 1995

3.7 Agricultural Extension in Uganda

In Uganda agricultural extension is coordinated by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). The Ministry has three main directorates: crop, animal and fisheries resources with distinct departments under each directorate. Departments stream down to the different local governments (districts, sub counties and parishes to the lowest structures at village level) as illustrated in the figure below.

Figure 8: Agricultural Extension Structure in Uganda



Source: MAAIF, 2015

4.0 TARGET GROUPS

The project is targeting to benefit 20,000 rural small-scale famers both men and women that are members of established and active farmer´s groups from the three selected districts of Mbale Manafwa and Bududa within the Bugisu sub-region.

Figure 9: Some pictures of women farmers involved in various farming activities

A female coffee farmer harvesting coffee, Mbale

Women bring their bananas (Matooke) to Bukigai Market -Bududa

Women farmer´s group weeding a maize farm using hand hoes

Source: Google Images (Mar, 2016)

5.0 IMPLEMENTATION FRAMEWORK

Project implementation

This section will discuss the implementation plan outlining the activities of the project and resource plan, the cost saving measures and the risk analysis. The project is expect to run for a minimum period of 5 years from the time of commencement.

5.1 Activity and Resource plan

The project has three main outputs and their activities are summarized as follows:

1. **Train farmers appropriate mobile phone skills to access agricultural market information and other extension services easily**

First is selection and approval of the target farmer´s groups within the district. The selection process will follow operational processes and procedures within the district local government framework. An in-depth training of trainers around issues of mobile phone use and access to extension services using mobile apps, marketing skills and good practices, this will be followed by training of the selected farmer´s group leaders who will then train other colleagues

Technical guidelines for all groups, teams, committees and group leaders will be developed describing clear roles and responsibilities of each one to avoid overlaps. Standard manuals, guides in both print and graphics, and in both English and the local dialect will be developed to ease training work. Demo sessions will be conducted in a more simplified and clear manner to illustrate how mobile phones can be used to access sufficient extension services and as marketing tools to creating business links with the buyers or consumers or processors directly. NGOs, CBOs and Ministry representatives attached to the farmer´s groups if any will be involved in conducting the trainings and presentations in relation to their areas of support focusing on strengthening the existing relationships.

2. **Promote mobile phone technologies at the district level for effective delivery and monitoring of extension services to the farmers.**

The main goal here is to promote free sharing of market information between farmers and their peers and business partners throughout the value chain.

This approach will allow the project lead teams to establish procedures of collecting, storing and analysing data and making it available in simple formats and in local language and then share with individual farmers in the district. The process will enable teams from stakeholders to interface with the farmers directly and learn about the challenges they face as well as pointing out priority areas that needs to be worked on and appreciating the project as one of those priorities of linking small-scale farmers to market information efficiently using cheap technology of a mobile phone.

3. **To create a robust district mobile phone market information delivery and management system to store data, process and monitor extension service delivery to the farmers through the mobile phone**

This will be achieved by conducting an indepeth traing of all stakeholders on the importance of using a mobile phone in the agricultural extension service delivery. Qualified farmer´s groups will be selected and subjected to to basic approval test, collective identification of needs that could help to improve the effectiveness and sustainability of the groups.

There will be community mobilization and promotion of behaviour changes especially among the core group members, involve men and other household members through working groups and identify model farmers as role modles to their counterparts, the purpose of the role models is for continuous mobilization and to create awareness among all the community members to appreciate and embrace the project objectives as well as emphasising the importance of the project to their areas and encouraging them to attend all the training sessions. **Detailed work plan is provided in Annex 5.**

5.2 Risk analysis

There are a number of factors and conditions that could affect the achievement of the project goal, objectives and outputs. Some of the risks are project-specific risks, which cannot be completely removed and no mitigation measures will be put in place, while others are external risks that cannot be affected by project management. Risk management plan has been made a strategic component of the project and the strategies will be reviewed during all phases of the project. A summary description of the identified risks, the probability and impact of occurrence for each risk, the mitigation measures which involves the identified actions to reduce the likelihood that a threat will occur and or reduce the impact in case a threat does occur, the individuals or groups responsible for mitigation actions and assumptions are identified and provided as below:

Table 3: Risk Analysis Matrix

Description of Risk	Impact on Project	Probability	Mitigation Actions	Individual or Group Responsible for mitigation actions	Assumptions
Insufficient political support for the project at district level	High	Low	Allow information flow to all project stakeholders at all levels during sensitization meetings, trainings and seminars	Project Manager	Sufficient political support for the project at district level
Farmers not willing to train and participate in all project activities	Low	Low	Encourage and sensitize selected farmers both men and women on the importance of participating in all planned project activities	Project Manager	Farmers will show interest and willingness to train and participate in all project activities
District technical staff not willing to take part in the field surveys	High	Low	Sensitize the district authorities about the importance of the field survey in achieving the intended project objectives	District Local Government authorities	District technical staff are willing to take part in the field surveys
Local farmer´s groups already exist on ground to facilitate the sessions campaigns on mobile phone marketing skills	High	Low	Conduct baseline surveys to establish the existence of the targets groups and create community awareness in the first quarter prior to the launch of the project	District Local Government authorities	Facilitators are available and will to conduct training, participate in mobilization and awareness campaigns on mobile phone marketing skills
Insufficient funds to facilitate all planned project activities	High	High	Increase funding from both government, private sector and the donor organisations and	Donor organization	Availability of funds to facilitate all planned project activities

			follow an approved budget framework		
Insufficient mobile phone extension service delivery	High	High	Vigorous sensitization and training of the district technical staff using simplified training materials and strategies	Project Manager	Lack of skills and knowledge of mobile phone extension service delivery
Farmers not willing to share the challenges of extension services	Low	Low	Explain clearly to the farmers the project objectives and sensitize them on the importance of the project to them and district development	District Local Government authorities	Farmers are willing to share the challenges of extension services with the project data collection team
The project consultant is not result oriented	Low	Low	Define the qualifications and experience of the consultant and make the job descriptions very clear and simple to understand	District Local Government authorities	The project team is able to identify a result oriented consultant
Small-scale farmers in the villages are not interested in the project	High	Low	Vigorous sensitization of farmers on the importance of project objectives	Project Manager	Small-scale farmers in the villages are interested in learning new marketing skills
Lack of qualified individuals to participate on the project as community knowledge workers	Low	Low	Community sensitization and awareness about the project objectives and intensions	Project Manager	Qualified individuals are available and willing to participate on the project as community knowledge worker
Farmers will not cooperate with the community knowledge workers during the field visits	High	Low	Conduct community sensitization and awareness in all villages before the commencement of the project	District Local Government authorities	Farmers will cooperate with the community knowledge workers

6.0 BUDGET

The total budget for implementing the project for five years is **EUR 182.222**

The table below present a summary budget for facilitating all project components. The detailed activity budget is presented in **Annex 1.**

Table 4: Summary of the budget by components

Outputs	Project Components	Total budget (Euros)
1	Train farmers appropriate mobile phone skills to access agricultural market information and other extension services easily	52.944
2	Promote mobile phone technologies at the district level for effective delivery and monitoring of extension services to the farmers	98.640
3	To create a robust district mobile phone market information delivery and management system to store, process and monitor extension service delivery to the farmers through the mobile phone	30.638
	Total	**182.222**

7.0 MONITORING AND EVALUATION

The collection of monitoring inform formation, processing and administration will be carried out by the Project coordination office (PMO) and the Project access offices (PAO) for the funders and other stakeholders to analyze. Monitoring information will also be instrumental in preparing the annual work plans and budgets. A project management information system will be designed by the monitoring and evaluation officer (MEO). Aspects to be monitored include those presented in the LFW Matrix, disaggregated by gender where applicable.

Monitoring data will be used by the PMO to manage implementation activities including: analyzing problem area in implementation and subsequent planning of corrective action, supporting decisions on the allocation of technical assistance funds, and reporting to the cooperating stakeholders.

8.0 FINANCIAL MANAGEMENTAND AUDITING

The project will keep financial records in accordance with international accounting practices and will ensure that an independent auditor acceptable to the GoU and the CPAU annually audits all projects accounts. The corresponding report will be submitted to the PFO and the donors for

review. The PMO will be responsible for timely submission of fully audited and certified financial statements quarterly and no later than six month after the closing of the financial year.

9.0 REPORTING

Quarterly reports will be prepared by the project manager within 30 days from the end of each quarter. The report will comprise an overview of the project to include a summary of progress of work towards achieving the objectives of the project. The description will include the achievements and milestones. The report will explain the differences between work to be carried out and what actually has been carried out. A final report will be prepared and submitted within 30 days after the end of the project to all project stakeholders by the Project consultant and it will consist of summary report covering wider societal implication of the project including gender, ethical and effort to involve other stakeholder in the implementation of the project.

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ANNEX 1: LOGICAL FRAMEWORK

Goals		Indicators		Verification Sources		Assumptions	
1	To improve access to market information and create sustainable livelihoods for small-scale farmers both men and women within the districts of Mbale, Bududa and Manafwa in Bugisu sub-region to benefit their families and communities.	1.1	Sustainable household livelihood for both men and women	1.1.1	NPHC, PSR (Poverty status reports)	1.1	Sufficient political support for the project at District level
Purposes		**Indicators**		**Verification Sources**		**Assumptions**	
1	To empower rural small-scale farmers both men and women with sufficient mobile phone skills and knowledge to access sufficient, accurate and timely agricultural extension services for a sustainable livelihood	1.1	Increased knowledge and skills to access market information and extension services through mobile phone by 80% of the target number.	1.1.1	KAP (Knowledge, Attitude and Perceptions) surveys	1.1	Farmers will show interest and willingness to train and participate in all project activities
				1.1.2	District annual performance reports		
Outputs		**Indicators**		**Verification Sources**		**Assumptions**	
1	Train farmers appropriate mobile phone skills to access agricultural market	1.1	Number of farmers trained by end of the first	1.1.1	Baseline survey report	1.1	Availability of funds to facilitate the training of

	information and other extension services easily		quarter of the project.				farmers and manage other planned project activities
				1.1.2	List of participants from the training sessions	1.2	Farmers are willing to participate in all training session and other project activities
		1.2	Quality reports about the skills and knowledge of farmers on mobile phone use in accessing market information and extension service				
		1.3	Number of stakeholders interested in supporting the project as a result of the survey by end of the first quarter of the project				
2	Promote mobile phone technologies at the district level for effective delivery and	2.1	Number of sensitization and awareness sessions about	2.1.1	District reports	2.1	District extension officers are willing to

	monitoring of extension services to the farmers		the importance of the mobile phone in market information and extension services conducted in each target community in the first quarter of the project				attend the training and use the mobile phone market information and extension service delivery system to reach out to farmers
		2.2	Number of farmer group registered and provided with the training materials				
3	To create a robust district mobile phone market information delivery and management system to store, process and monitor extension service delivery to the farmers through the mobile phone	3.1	Number of district technical staff available to conduct the training			3.1	Lack of skills and knowledge of mobile phone market information and extension service delivery systems

ANNEX 2: DETAILED ACTIVITY BUDGET

N°	Description	N°	Description	Duration	Number	Unit cost EUR	Total cost EUR
1	**Train farmers appropriate mobile phone skills to access agricultural market information and other extension services easily**						
1.1	To conduct baseline survey in all the three districts in the first quarter of the project	1.1.1	Consultancy				1.451
		1	Newspaper advertising charges	1 days	1 units	527	527
		2	Consultant´s charges	7 days	1 persons	132	924
		1.1.2	Field managers				1.428
		1	Hire of data collectors / field managers	7 days	6 persons	27	1.134
		2	Transportation	7 days	6 persons	7	294
		1.1.3	Stationery				2.345
		1	Reams of paper		24 pieces	53	1.272
		2	HP LaserJet printer		1 pieces	395	395
		3	Clear bags		24 pieces	3	72
		4	Staple machine		3 pieces	10	30
		5	Staple wires, tapes, Flip charts		24 pieces	14	336
		6	Voice recorders		3 pieces	80	240
		1.1.4	Training workshops				41.200
		1	Hire of conference room	5 days	4 units	132	2.640
		2	Tea, Lunch, Airtime	5 days	4 units	316	6.320

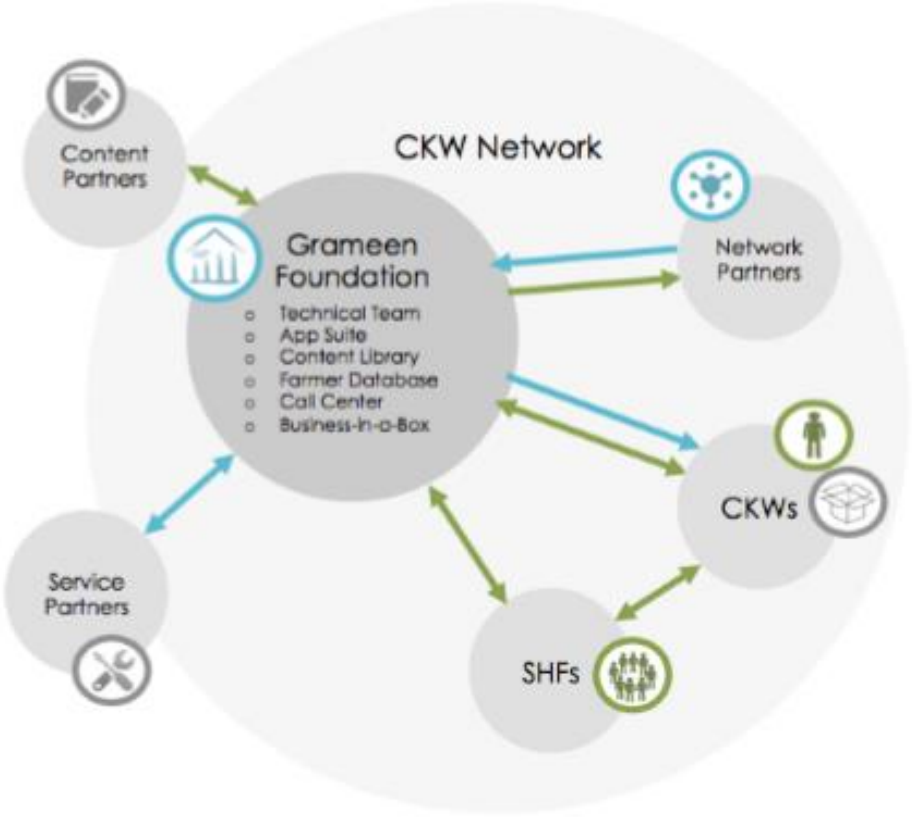
N°	Description	N°	Description	Duration	Number	Unit cost EUR	Total cost EUR
		3	Car hire	5 days	4 units	106	2.120
		4	Fuel (Petrol)	5 days	4 units	106	2.120
		5	Workshop transport refunds	20 weeks	100 persons	14	28.000
1.2	To compile and transcribe the collected data, and share it with the stakeholders to understand the magnitude of the problem	1.2.1	Data entrants				756
		1	Facilitation	7 days	2 persons	27	378
		2	Tea, Lunch	7 days	2 persons	27	378
		1.2.2	Computer hardware and software				790
		1	Desktop Computer full set	1	1 pieces	558	558
		2	Software	1	1 pieces	232	232
		1.2.3	Stakeholders meeting				1.386
		1	Hire of conference room	1 days	1 units	132	132
		2	Allowances	1 days	50 persons	14	700
		3	Teas and Lunch	1 days	1 units	316	316
		4	Communication	1 days	1 persons	132	132
		5	Fuel	1 days	1 persons	106	106
1.3	Prepare and pretest training materials and manuals	1.3.1	Familiarization workshop				764
		1	Hire of Conference room	1 days	1 units	132	132
		2	Tea and Lunch	1 days	1 units	316	316
		3	Facilitation costs	1 days	1 units	316	316
		1.3.2	Field sample tests				132

N°	Description	N°	Description	Duration	Number	Unit cost EUR	Total cost EUR
		1	Testing of project tools	1 days	1 pieces	132	132
1.4	Organize a workshop to launch the project and identify beneficiaries	1.4.1	RFP				527
		1	Advertising	1 days	1 units	527	527
		1.4.2	Launch workshop				2.165
		1	Hire of conference room	1 days	1 units	132	132
		2	Tea, Lunch and Airtime	1 days	1 units	315	315
		3	Transport	1 days	2 units	106	212
		4	Fuel	1 days	1 units	106	106
		5	Allowance	1 days	100 persons	14	1.400
2	**Promote mobile phone technologies at the district level for effective delivery and monitoring of extension services to the farmers**						
2.1	To conduct quarterly community mobilization and sensitization about the importance of the project	2.1.1	Quarterly announcements				12.720
		1	Quarterly radio announcements	5 years	4 units	316,	6.320
		2	Weekly Mobile SMS messages	5 years	16 units	80	6.400
		2.1.2	Printing field materials				18.320
		1	Field manuals and training tools	5 years	4 units	316	6.320
		2	Project T-shirts	5 years	400 units	6	12.000
		2.1.3	Field facilitation				23.840
		1	Transportation	5 years	4 units	316	6.320

N°	Description	N°	Description	Duration	Number	Unit cost EUR	Total cost EUR
		2	Monthly salary for community knowledge workers	5 years	12 units	80	4.800
		3	Data for community knowledge workers	5 years	48 units	53	12.720
2.2	Establish and train a team of community knowledge workers from farmers in each district	2.2.1	Mobile phones				39.120
		1	Mobile phones	1 years	100 pieces	264,00	26.400
		2	Internet data for 100 mobile phones	5 years	48 units	53	12.720
		2.2.2	Training facilitation				9.520
		1	Transportation for training staff	5 years	4 units	316	6.320
		2	Allowances for community knowledge workers	5 years	4 units	80	1.600
		3	Allowances for field trainers	5 years	4 units	80	1.600
2.3	Conduct quarterly monitoring and review performance of community knowledge workers	2.3.1	Field supervision				6.320
		1	Transportation	5 years	4 units	316	6.320
		2.3.2	Writing field reports				6.320
		1	Stationery	5 years	4 units	316	6.320

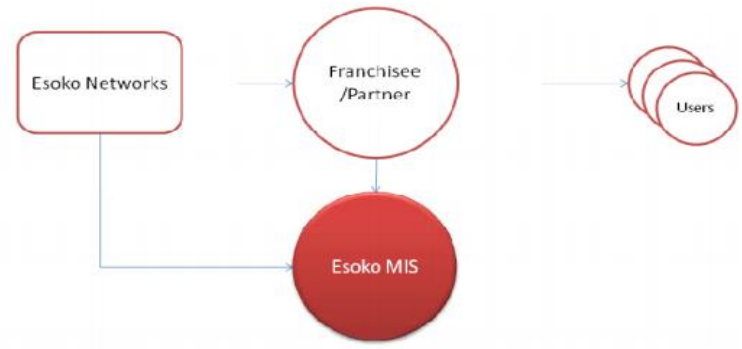
N°	Description	N°	Description	Duration	Number	Unit cost EUR	Total cost EUR
3	**To create a robust district mobile phone market information delivery and management system to store, process and monitor extension service delivery to the farmers through the mobile phone**						
3.1	Train a district research team to be in charge of collecting data, upload, extension services, statistical services, data analytics and to coordinate with community knowledge workers in the villages	3.1.1	Training workshop for district research team				18.800
		1	Hire of conference room	5 years	4 units	132	2.640
		2	Tea, Lunch, Airtime	5 years	4 units	316	6.320
		3	Car hire	5 years	4 units	106	2.120
		4	Fuel	5 years	4 units	106	2.120
		5	Workshop transport refunds	20 weeks	20 units	14	5.600
		3.1.2	Creating Project management office				18.838
		1	Hire of office space	5 years	12 units	132	7.920
		2	Office furniture	1 days	1 units	1.318	1.318
		3	Monthly salary for one office clerk	5 years	12 persons	80	4.800
		4	Monthly office expenses	5 years	12 units	80,00	4.800

ANNEX 3: HOW THE CKW MODEL WORKS IN UGANDA

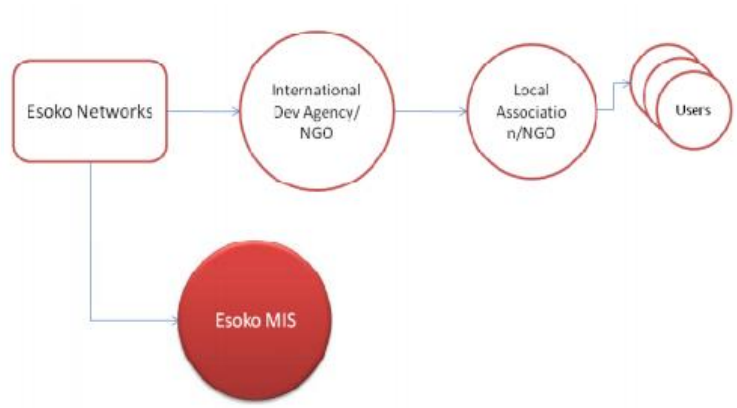


Source: Grameen Foundation

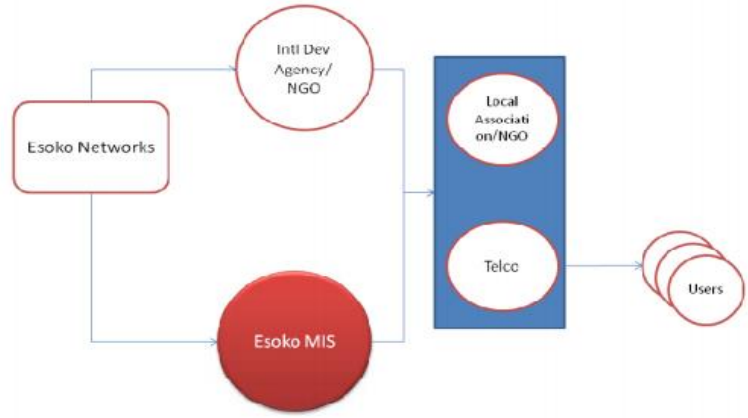
ANNEX 4: ESOKO FRANCHISEE MODELS



Under the standard franchisee model, the franchise operator/partner is responsible for the establishment, distribution management and operation of the MIS. Royalties for subscriptions sold are returned to Esoko Networks.



This variant of the franchise model has a local association/agency as the implementation partner whilst all license subscriptions are funded by an International development agency/NGO. Local implementation partners are charged with the establishment, distribution and management of the MIS.



In this variant, the MIS management functions are managed by separate entities. Deployed in Afghanistan, the MIS operations functions are managed by a local NGO whilst enumeration and sales are managed by a Telco.

Source: Case study Esoko Networks

ANNEX 5: WORK PLAN

Mobile Phone Market Information and Extension delivery system Project-Workplan

	Output/Activieties	2017												2018												2019												2020												2021											
		Q1				Q2			Q3					Q1				Q2			Q3					Q1				Q2			Q3					Q1				Q2			Q3					Q1				Q2			Q3			
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Output 1.1: Train farmers appropriate mobile phone skills to access agricultural market information and other extension services easily																																																												
A1.1.1	To conduct surveys in all the three districts each in the first annual quarters of the project																																																											
A1.1.2	To compile and transcribe the collected data, and share it with stakeholders to understand the magnitude of the problem																																																											
A1.1.3	Prepare and pretest training materials and manuals																																																											
A1.1.4	Organize a workshop to launch the project and identify beneficiaries																																																											
Output 1.2: Promote mobile phone technologies at the district level for effective delivery and monitoring of extension services to the farmers																																																												
A.1.2.1	To conduct quarterly community mobilization and sensitization about importance of the project																																																											
	Establish and train a team of community knowledge workers from farmers in each district for each year of the project																																																											
A.1.2.2	Conduct quarterly monitoring and annual reviews of performance of community knowledeg workers																																																											
Output 1.3: To create a robust district mobile phone market information delivery and management system to store, process and monitor extension service delivery to the																																																											
A.1.3.1	Train a district research team to be in charge of collecting data, upload, extension services, statistical services, data analytics and to coordinate with community knowledge workers in the villages and review performance annually																																																											