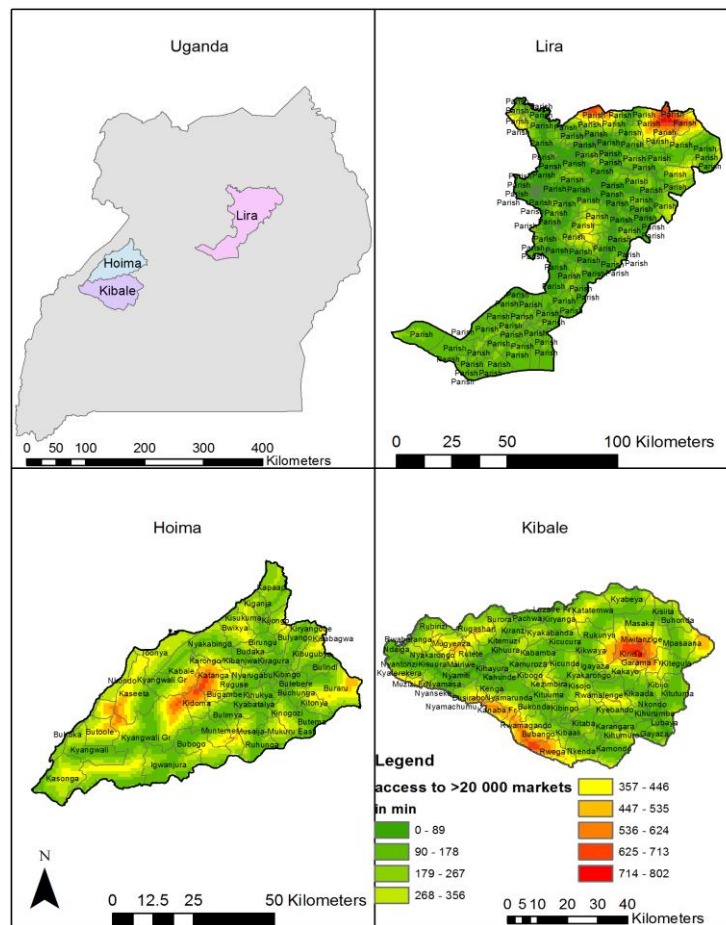


Uganda smallholder pig value chain site scoping report: Lira, Kibaale and Hoima districts



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1. Introduction

The site scoping exercise was conducted between 23rd June and 18th July 2014. It mainly involved farmer field visits, by ILRI's Uganda pig value chain projects team to identify the pig value chain domains that exist in the three districts (Lira, Hoima and Kibaale) that were selected through a scoring exercise by stakeholders for further pig value chain work during the inception workshop of the Irish Aid-funded smallholder pig project on "More pork by and for the poor: Catalysing emerging smallholder pig value chains in Uganda for food security and poverty reduction". Details of the district selection process are documented in the workshop report¹. In the Western region, stakeholders of the inception workshop selected both Hoima and Kibaale districts for the pig value chain work while in the Northern region, Lira was top scored. Since only 2 districts were to be selected as additional project areas, part of the objective of the site scoping exercise was to prioritise selection of one of the two districts in the Western region and provide a rationale.



Uganda ILRI team with a farmer and NAADS staff

The scoping visits also aimed at validating the livestock census results on the pig population in the selected sites within the districts to be targeted for the pig value chain work. Some of the organisations that are involved in the pig value chain work in the districts were also visited and informed on the planned project activities.

A short checklist was administered to key informants, and some of the farmers visited during the field visits. The checklist's focus was on existing market outlet types, destination of pig/pork sales, support services, farmer groups/associations and observations on the vulnerability status of households. This report presents the

¹ Project inception workshop report (2014): Irish Aid funded project "More pork by and for the poor: Catalysing emerging smallholder pig value chains in Uganda for food security and poverty reduction.

results from the farmer field visits and a summary of some of the activities that other organisations involved in the pig value chain in the three districts are engaged in. In Lira district, 5 villages in 2 sub-counties were visited, while in Hoima, 8 villages in 6 sub-counties were covered. In Kibaale district, the coverage was 7 villages in 3 sub-counties (Table 1).



Uganda ILRI team with Adina Foundation staff

Table 1. Farmer field scoping sites

(a) Lira district

County	S/County	Village
Erute	Adekokwok	Adidikweno B
		Telela
		Angwetangwet B
Barr		Ayel
		Achandiang A

The ILRI Uganda staff who participated in the site scoping visit in Lira included:

- Danilo Pezo – ILRI Country Representative
- Michel Dione – Animal Health postdoc
- Paul Basaija – Driver/Office Assistant
- Emily Ouma – Agricultural Economist

(b) Hoima district

County	Sub-county	Village	Value chain domain
Hoima town council	Kahooro	Rusembe	Urban - urban
Buhaguzi	Busiisi	Buswekera	Urban-urban/Rural-urban
	Kiziranfumbi	Butimba	Rural-rural
	Bugambe	Bujugu	Rural – rural
Bugahya	Kyabigambire	Kyamongi	Rural-rural
		Mparangasi	Rural-rural
	Kitoba	Dwoli East	Rural-urban
		Wendero	Rural-urban

(c) Kibaale district

County	Sub-county	Village
Buyaga	Muhooro	Kyamajaaka
		Gulika
		Kapyeemi
Bugangaizi	Nkooko	Sazike
		Katikuma
		Nituma
	Kakumiru TC	Kabwooro <u>A</u>

The ILRI Uganda staff/students who participated in the site scoping visit in Hoima and Kibaale districts included:

- Michel Dione – Animal Health postdoc
- Paul Basaija – Driver/Office Assistant
- Rachel Asimwe – An intern from Agribusiness dept. Makerere University
- Emily Ouma – Agricultural Economist

2. Lira District

2.1 Background

Lira District is located in Lango sub-region in Northern Uganda and is bordered by the districts of Pader and Otuke to the North and North East respectively, Alebtong to the East, Dokolo to the South and Apac to the West. In 2010, the district had an estimated human population of 377, 800 persons² and currently has 2 counties, Erute and Lira Municipality, 9 sub counties and 4 divisions³. The economy of the district is mainly based on subsistence agriculture, with 81% of the population engaged in subsistence farming.

Rain-fed crop production mainly by smallholders plays a very important role in the agricultural development of the district. Cash crops grown include sunflower, cotton and simsim, while the common food crops grown are rice, millet, sorghum, cowpeas, pigeon peas, groundnuts, cassava, maize, sweet potatoes, soybeans and beans. Lira is a main source of oil crops and pulses for the nation. Bananas have recently been introduced in the district. Industries for sunflower oil processing such as Mukwano and Mt. Meru have been established in the district. By-products from sunflower processing are viable livestock feed resources and are available but sold in large volumes thereby not easily accessible by smallholders.

Cattle used to be a big source of wealth in the district, with bulls being used for animal traction. However, this has been totally eroded by the effects of cattle rustling and the LRA war from 1987-2006 which virtually depleted the stock of animals from 316,000 heads in 1987 to about 45,000 in 2008⁴. With improved security situation since 2006 the cattle population is on the rise. Piggery has increasingly become an important enterprise with an estimated population of 31,294 in 2008 (ibid.). In the current five- year development plan, 40% of sub-counties in Lira selected piggery as a priority enterprise. Some of these sub-counties include Adekokwok, Lira and Amach.

The improved security situation in the district has encouraged return of displaced persons from the rural and urban Internally Displaced Persons (IDP) camps to their original land. This has increased access to land for agricultural production. Interventions by the Government of Uganda through initiatives such as the Return, Resettlement, Development Programme (RRDP) and interventions by humanitarian organisations in the food security sector has improved the food security situation in the district. Several non-governmental organisations such as Volunteer Efforts for Development Concerns (VEDCO), World Vision, Welthungerhilfe, and Plan Uganda operate in Lira district, with some providing humanitarian support and others promoting livelihood projects.

² Lira District Development Plan 2010 – 2015.

³ Divisions are used in Lira Municipality but are equivalent to sub-counties.

⁴ Livestock Census report, 2009.

Road infrastructure is good within the Municipality and sub-counties such as Adekokwok which neighbours the Municipality but deteriorates as one move further from town.

2.2 Results from farmer field visits

2.2.1 Key livelihood activities

The key livelihood activities in the district include crop farming and livestock keeping. Common crops grown include coffee, sunflower, groundnuts, maize, millet, banana (introduced by NAADS), black beans, sesame (locally known as “simsim”), cotton, cassava, and sweet potatoes. Livestock kept include pigs, goats, cows and poultry. In most of the villages, pig production is a key income source for more than half of the village population and contributes to school fees payment and meeting other household financial needs. However, in Barr sub-county (Ayel and Achandiang A villages), recent African Swine Fever (ASF) outbreaks from April 2014 wiped out pig populations and few households currently have pigs. The average land size per household ranges between 4 – 7 acres.

It is worth noting that most of the farm activities are done by women. Most of the men and youth crowd in trading centres the whole day for leisure activities.



Farmer displays her “simsim” drying



Sow confined in a pig pen in Lira

2.2.2 Pig feeding systems and husbandry practices

Most households practice partial confinement where pigs are confined in a pen and sometimes tethered. Most of the households feed their pigs on crop residues, as the basal diet such as sweet potato vines, cassava tubers, cassava peelings, banana leaves and pig weed (*Amaranthus spp.*)



Pig feeding on banana leaves

Commercial feeds including maize bran, blood meal, and fish meal are used to supplement the diets and are mainly purchased from the feed stockists in town. In most cases, maize bran is mixed with silverfish using different ratio depending on farmers' knowledge⁵. The price of maize bran ranges between UGX 300 – 400/Kg.

A number of farmers rear improved pig breeds (mainly crosses) – Landrace, Large White and local breeds though majority keep local breeds. Most of the farmers have about 2 – 5 adult pigs.

The major pig health challenges include African swine fever (ASF), and internal and external parasites (worms, lice, ticks) and many farmers indicate that they deworm their pigs on a quarterly basis (once every four months). Sharing of village boars is common in most of the villages, and although the farmers know the disease transmission risks involved, no precautionary measures are taken.

2.2.3 Market outlets

Most of the farmers sell both piglets and the grown/fattened pigs. Sale of piglets is mainly to fellow farmers within the neighbourhood. The sale price varies depending on the breed with local breeds being sold at about UGX 50,000 – 65,000 per piglet and the improved breeds (mainly crosses) going for UGX 80,000 – 100,000/piglet. Sale of grown pigs is mainly to local pork butchers within the localities and in Lira town. This suggests 2 types of value chain domains: rural – rural and rural – urban. However, the value chain domain in Lira Municipality where sale of pigs occur within the township can be classified as urban – urban. Sale price is based on visual inspection of the pig and negotiation between the buyer and the seller.

2.2.4 Access to enabling services

Animal health services are available in most of the villages with heavy reliance on the village veterinary practitioners for advisory services and curative treatments. Self-administration of pig de-wormers is also common among the farmers. The government-aided National Agricultural Advisory Services (NAADS) officers in the sub-counties are also important sources of animal health and feed formulation advisory services for the pig farmers⁶. Most of these officers are trained in Animal Husbandry up to Diploma level.

NAADS has also supported the pig enterprise by providing piglets to interested farmers in groups as part of the district livelihood programs. The farmers are divided into 2 groups: marketed oriented and subsistence/food security farmers. Interested farmers belonging to the market oriented group each received 3 piglets (2 female and 1 male) while those belonging to food security groups received maize and bean seeds. NAADS has also promoted pig confinement, encouraging farmers to keep their pigs in pens. However, NAADS has recently been restructured, some staff contracts terminated and most of the running

⁵ One farmer indicated that he uses 1 hand basin of Mukene and mix with 100Kg of maize bran.

⁶ One farmer indicated that NAADS trained them how to make feed formulations from fish meal, pre-mix, sunflower cake, rice bran or maize bran.

contracts will not be renewed after expiry. It is likely that the Ministry of Agriculture Animal Industry and Fisheries (MAAIF) and the local governments will be responsible for the extension services, but for now the plans are not fully clear.

2.2.5 Farmer groups

No specific pig producer groups exist. Credit schemes in the form of village savings and lending associations (VSLAs) are common in most of the villages. In most of the groups, women are the majority in terms of membership. Some of the NAADs farmer groups have transformed into VSLAs. Members meet regularly (weekly or fortnightly) to carry out collective activities such as pooled digging on each member's farm in addition to the regular savings and lending activities. These meetings are mandatory and attract a fine payment in case of absenteeism. Membership is often open to new members at a fee. For example, in the Okonyorekendwa group (former NAADS group) new members join at a fee of UGX. 75,000. The interest rate charged on the loans is about 10%.

2.2.6 Constraints

- Expensive feeds
- ASF outbreaks that lead to high mortality and often compel farmers to sell in panic to minimise losses
- Low market price for pigs. Like in other areas, traders establish the price based on estimated carcass weight, and farmers do not have a clear idea of the pig's weight, and therefore cannot negotiate properly. It's been observed however, that prices tend to be higher during times of scarcity especially between the months of June and August.
- High piglet mortality.
- Poor organisation of pig farmers.
- Poor access to financial services.

2.3 Sub-counties to be targeted for pig value chain work

Based on field observations and discussions with the field staff, the following sub-counties will be targeted for the initial pig value chain characterisation surveys.

Table 2: Sub-counties to be targeted for pig value chain assessments

County	Sub-county	Value chain domain type
Erute	Aromo	Rural – urban
	Adekokwok	Urban – urban
	Barr	Rural – rural
Lira Municipality	Ojwina	Urban – urban
	Adyel	Urban – urban

2.4 Organisations visited

During the scoping visit, 3 organisations were visited:

2.4.1 Lira Local Government District Production and Marketing Department

The District Veterinary Officer, Dr. Wilson Okwir, who is also the acting District Production and Marketing Officer was our host and organised all the field scoping visits together with his team on the ground. He gave us a background of the district, part of which is presented in section 2.1. Some of the animal health challenges in the pig sector identified by the DVO are ASF, worms and diarrhea in piglets. There is no organised marketing system for pigs though livestock markets for sheep, goats and cattle exist.

Staff in the district livestock production department

1. 1 District Veterinary Officer (who is also the acting District Production and Marketing Officer).
2. 1 Veterinary Officer
3. 3 other staff (diploma level Animal Husbandry)
4. 1 NAADS staff in every sub-county (before the disbandment of NAADS)

2.4.2 VEDCO

VEDCO is our partner in the on-going IFAD-EC funded Smallholder Pig Value Chains Development Project. Although, they are not involved in pig value chain activities in Lira district, they are willing to host one of our staff who will be based in the district.

VEDCO has been in Lira since 2008. They are leading a women empowerment project that started 2 years ago and focuses on agronomy and agribusiness aspects of soybean, rice, sunflower, maize, bananas and sorghum. Their activities cover 3 districts: Lira, Otuke and Aleptom. In Lira, the project operates in 3 sub-counties of Ogur, Barr and Agweng’.



Staff

Project Coordinator

2 field staff

Community-based trainers

2.4.3 Adina Foundation

Adina Foundation is Norwegian-funded local NGO working with children with mobility disability. They operate in Lira and Amolatar districts. They work with about 20 disabled children every quarter of the year, some of whom go through surgery and rehabilitation.

They promote piggery and apiary as part of the income generating activities for the parent support group programs. They also conduct trainings on effects of gender based violence and have an adult literacy component for the parents.

In 2012, they started a piggery model farm with about 100 pigs and a slaughter facility with funding from a Norwegian donor. The goal was to be the leading supplier of pork in Lira district. However, last year during an ASF outbreak all the pigs died resulting in major losses. They have since renovated the structure and are planning to implement strict biosecurity measures, following discussions with the ILRI Uganda team. They however still need advice and capacity enhancement on relevant biosecurity implementation strategies.



3. Kibaale District

3.1 Background

Kibaale district is located in the Western part of Uganda and is made up of five counties, eighteen sub-counties and two town councils. The district is located approximately 219km from the Ugandan capital, Kampala. It has an area of 4400.8 square kilometer and a population density of 160.5 inhabitants per square kilometer. The nearest largest town is Hoima, at a distance of 98km from Kibaale town council⁷.

The district is characterized by a tropical climate with two productive agricultural seasons and it receives a reliable amount of rainfall. The vast bushes, shrubs, forests and water bodies are home to wild animals like wild pigs, bushbucks, antelopes, monkeys, chimpanzees, warthogs, hippos and crocodiles. Being a border district, it is vulnerable to insecurity from neighboring countries and the burden of managing refugees and communicable diseases, for example the Ebola virus disease outbreak in 2012 that infected 24 and killed 16, a 66% case fatality rate (ibid.).

Physical Infrastructure in the district is very poor; the hospitals and schools are inadequate and all the roads are in a poor state. The main trunk road was built in 1997 as a result of the cooperation between the governments of Uganda and Ireland in 1994 – 2003 under an Integrated Rural Development program on education, roads, health and agricultural production (personal communication DPO).

Agriculture is the mainstay of the district; however, only 12% of the arable land is under cultivation. The population is mainly engaged in subsistence production of food crops like sweet potatoes, bananas, cassava, finger millet, beans, ground nuts, vegetable, fruits and maize. The cash crops grown are tobacco, tea, coffee and cocoa is also becoming popular. Cattle, goats, sheep, pigs and poultry are the animals reared in most homesteads. The main water supply technologies utilized by farmers are wells and ponds. Only 1% of the population can access safe water. However, farmers have to trek long distances in search of water for their animals and for home consumption as well.

There are barely any Non- Government Organisations (NGOs) and other agricultural related agencies working in the district. Irish Aid had an Integrated Rural Development project in the district for nine years (1994-2003). The project aimed at capacity building of farmers and it also supported schools, hospitals and livestock especially dairy and constructed roads, boreholes and a laboratory.

There is only one bank in the district - Centenary Rural Development Bank, which is located in Kagadi town, 40km from Kibaale town. The other financial institution in the region is a microfinance organisation; Hoima Fort Portal Kasese Microfinance (HOFOKAM), which was founded by the Catholic diocese of Hoima.

⁷ Kibaale District Development Plan 2010 – 2015.

The major diseases affecting livestock in the region are; East Coast fever, New Castle disease, rabies, trypanosomiasis, worms and African Swine Fever (ASF). There is not much cattle because of the tsetse fly prevalence.

Output markets for the pigs in the district include Bundibugyo, Buganda region, Congo and mostly, the local market. There is no abattoir or slaughter house for pigs. The animals are usually slaughtered on farm or for the butcheries, in the nearby bushes.

3.2 Results from farmer field visits

Households are sparsely distributed in most villages. Majority of the rural farmers live in temporary structures, made of mud, poles, wattle and iron sheet roofing. Most households are male headed though the few female headed households are notably poorer and more vulnerable.

Majority of the children, especially in Gulika village, Muhooro sub-county do not go to school. This was attributed to the fact that most of their parents and guardians (especially women) spend most of their days waiting for miracles at Bisaka's residence, a renowned cult leader in the area. Most of the younger boys and men spend most of their time in the nearby trading centers, doing petty jobs or gambling.

3.2.1 Key livelihood activities

Major livelihood activities in the district include crop cultivation and livestock production. Generally, most households rear pigs as the key income source for 90% of the population. Other livestock kept include cattle, goats, rabbits and poultry. Pigs form the majority because each household owns at least one, Poultry is ranked second and a few households keep at least one dairy cow (in Kyamajaaka village). Goats and rabbits were few. Dairy production is not so popular. Some of the pig farmers, especially in Nkooko sub-county were vertically integrated in the value chain, as they also own roadside butcheries. 1 kg of pork ranges between UGX 6000 to 7000.

Common crops grown include maize, cassava, beans, yams, sweet potatoes vegetables and fruits (passion fruits, mangoes avocado and jackfruit). However, maize was the most popular, followed by cassava, sweet potatoes and beans. Off farm income activities in the form of small scale retailing in nearby trading centres seem common among some men.



Tethered pigs in Kibaale

3.2.2 Pig feeding systems and husbandry practices

Most pig farmers practiced extensive and semi-intensive feeding systems. In a few villages such as Kyamajaaka village, some farmers, with more experience in pig

farming confined their pigs in pens. Most of the breeds kept under this system were crosses (Landrace and Large White). NAADS seem to have been active in the village, offering advisory services to pig farmers. Many of the farmers in Muhooro village for instance, leave their pigs to scavenge irrespective of the season due to financial constraints and lack of feeds and water. The pigs kept under this system are mainly of local breeds and are confined at night.

Feeds are a major challenge in the district. The main pig feeds in the district are crop residues which are more available during the harvest period and scarce during the planting season. The smallholder pig farmers neither have knowledge about the nutrient requirement of their animals nor training on how to make home mixed feeds. The crop residues that are popular among the farmers are cassava leaves, sweet potato vines and cocoyam (both leaves and tubers). The majority of the few farmers practicing intensive pig feeding system use commercial feeds, especially maize bran but is expensive and seasonal. Fruits such as mangoes, avocado and jackfruit are an important component of the pig diet in the district. However, crop residues and other feeds are still under exploited presumably because of lack training and awareness; for example, banana peelings and leaves, pig weed, kitchen leftovers, and other fodder are not being used.

Water is another constraint not only to farmers and their animals but to the district as a whole. The commonest water sources are ponds and wells. Farmers have to walk long distances in search of water for their animals and domestic use. The farmers therefore tend to limit the quantities of water given to the animals because fetching it from the wells is cumbersome.

Breeding services: The pig farmers borrow or share boars within the villages and payment is in terms of the smallest male piglet when the sow farrows. This is because some farmers find it difficult and expensive to feed and rear their own boars.

3.2.3 Mortality/ Losses

Piglet Mortality: Starvation (that could lead to hypoglycaemia) and diarrhoea at the age of 10 -21 days were the major cause for piglet mortality.

Grown pigs mortality : Most of the pig deaths registered in the last six months were suspected to be as a result of African Swine Fever(ASF).

Due to its fatality, very many pigs were lost within the same time. This is because farmers hardly observe any biosecurity measures under the extensive systems commonly practised. Worms were also a big challenge to the farmers. Other diseases are unknown as most of them go undiagnosed and farmers referred to every illness as “fever”.



Motor cycle pig transport

3.2.4 Decision making in the piggery enterprise, by gender

Majority of the women participated in pig production because in most households, piggery was a joint/ family venture. Only 10% of the women owned pigs of their own; one or two pigs at most. The men constructed shelters, dewormed, bred, and looked for market for the animals whereas the women looked for feed, fetched water, cleaned the pig shelters and accessed veterinary services when the need arose. The women were sometimes assisted by the children.

In most sites, income accountability and decision making was said to be a shared responsibility since the piggery enterprise was a joint venture. One farmer in Kyaamajaaka said that accountability and decision making was his wife's responsibility because he did not want to spend the money carelessly.

3.2.5 Market outlets

Grown pigs: Generally, all farmers sold off more grown pigs for slaughter compared to piglets. A 6-8 month old pig could attract at least Sh 100, 000. The main marketing outlets for grown pigs are local traders and other traders coming from Bundibugyo district, Kampala, and the DRC. Most farmers in Muhooro sub-county (closer to Lake Albert) reported bulk sales to the DRC traders once in a while. Demand for pigs by traders from Bundibugyo district is highest during the cocoa harvest. Buyers from outside the district usually advertise on the local radios before going to the villages for purchase at collection centres. Prices offered by the external traders were said to be higher than the prices offered by the local traders and the Congolese traders offered the best prices. Price negotiations are largely based on the size of the pig (visual weight estimations). Prices shot up during the festive seasons of Easter and Christmas (April and December respectively) and went down during the go back to school period. In case of a disease outbreak or suspicion, farmers had a tendency to sell off their animals immediately at a very low price. There is neither an abattoir nor slaughter house in the whole district.

Piglets: Farmers sold their piglets to other neighbouring farmers or farmers in the nearby villages. In Buyaga West, the price of piglets was UGX 50,000 per head, possibly because some of the farmers reared exotic or improved breeds. In Bugangaizi and Buyaga East, the average price of a piglet ranged between UGX 35,000 and 40,000.

3.2.6 Access to enabling services

Animal health service: The health service providers are mainly para-veterinarians at the sub-county level. Basically, they diagnose, treat and vaccinate livestock at a fee. Most of them have diploma level training in animal husbandry. A big challenge cited by the district production office is the lack of coordination between NAADS and the district veterinary office in terms of reporting information from the smallholder farmers to the production office.

Credit schemes: There was hardly any credit scheme tailored for smallholder farmers. The bank and microfinance institution which offer credit are expensive and farmers can barely afford. In addition, the process of obtaining a loan is very long and discouraging. The Hoima Fort Portal Kasese Microfinance (HOFOKAM), is an

available MFI in the district but it charges a loan interest rate of 3% per month, loan insurance fee of 2%, and a loan evaluation fee of 1%. In case of late payment, an additional fee of 0.5% of the amount per day is charged as a fine.

3.2.7 Innovations

Pig feed preparation: Farmers lacked training on pig feed preparation; let alone the nutritional requirement of their pigs. Only one farmer in Kyamajaaka village knew how to make home mixed feed. He got the feed guideline books from the Jinja Agricultural Trade Fair. On a daily basis, he made a mixture of rice husks, maize bran, ash, red soil, silver fish, calliandra, yams and cassava leaves.

3.2.8 Farmer groups

The smallholder pig farmers are not involved in any farmer group or association. Majority of them disbanded because of lack of honesty and trustworthiness.

3.2.9 Constraints

- Feed is a major constraint in pig production in the district. Animals depend mostly on grasses and some crop residues. Supplementary feeds are scarce, seasonal and expensive and their preparation is very unpopular among farmers.
- Lack of breeding programs in the district and the surrounding areas has slowed down breed improvement in the area.
- Absence of credit schemes for smallholder farmers has limited the expansion of the piggery industry in the district. The credit charges are too high for them and so they utilize the little income they get in order to sustain their pig projects.
- The smallholder farmers have no access to information and this has been worsened by the lack of farmer groups / associations.
- Poor farmer organizations due to trust issues.
- Diseases such as African swine fever and endo parasites have led to the loss of many pigs in the area. Other diseases go undiagnosed.
- The Para-veterinarians who offer treatment and vaccination services are very few, are poorly equipped and possess only basic knowledge about animal husbandry.
- Infrastructure is very poor in the district. The roads for example are murrum and ungraded. This hinders the transportation of farmers' products and market accessibility.
- Water is very difficult to access. Farmers fetch water from distant wells and ponds, which are usually contaminated. Only 1% of the population has access to safe water.

3.3 Organisations visited

3.3.1 Kibaale Local Government District Production and Marketing Dept.

We were unable to meet the District Veterinary Officer as he was away on leave but we met Dr. Sylveter Kumalira, the Veterinary Officer of Kibaale TC who made all arrangements for the field scoping visits. The District Production and Marketing Officer, Dr. Peter Sentai gave us a background of the district and welcomed the team on behalf of the DVO. The department has only 2 veterinary officers: (the DVO) and the Kibaale TC Veterinary Officer. There are 35 para-veterinarians under the NAADS program.

3.3.2 Uganda Rural Development and Training Programme (URDT)

- URDT is a development NGO located in Kagadi.
- They have a radio broadcasting station (Kagadi Kibaale community radio) where information is relayed to an estimated audience of more than 2 million people in about 12 districts through several local languages. It is part of the East African Community Media Programme.
- They also host the African Rural University, an all women's university that focuses on developing visionary women leaders.
- They have a training institute for girls and provide several hands-on training courses.
- They have a piggery unit – part of a model farm. The management of the unit however, needs improvement.

4. Hoima District

4.1 Background

The district has a total geographical area of 5,735 square kilometres with a land area of 3612.17 square kilometres. The western borders are completely covered by Lake Albert up to 2123.13 square kilometres of beach⁸. The Lake Albert region has magnificent features such as the rift valley, hot springs, crude oil wells, salt gardens, different species of flora and fauna, birds, which are a potential to the development of the tourism sector. Hoima district lies in the mid-western region of Uganda and shares borders with Masindi and Buliisa Districts to the north, Kyankwanzi District to the east, and Kibaale District to the south. Hoima district stretches to the national boundary of the Democratic Republic of Congo (DRC) to the west. The district is made up of 10 sub-counties and 1 Town Council (with 4 divisions).

Agriculture is the main livelihood activity of the inhabitants of the district, with 75% of the households engaged in agriculture. The main crops grown are maize, rice, sweet potatoes, cassava, Irish potatoes, beans, groundnuts and millet and common livestock kept are pigs, poultry, cattle and goats. Between 2005 and 2008, there was a big change/transformation in the piggery sector in the district as many farmers started shifting from poultry to piggery because of feed resource challenges; piggery ranked 2nd in population growth rate after poultry at the time. Since 2008, there has been increased enthusiasm by farmers to venture into piggery and traders from Kampala and the DRC target the district as a reliable source for purchasing pigs for resale in the towns along the shores of L. Albert (e.g. Bunia and Mayegi in the DRC). The pig population in the district according to the District Production Office (DPO) is estimated to be between 150,000 to 160,000 heads. During the local government's annual review meetings with farmers, the latter indicated the need for the government to address challenges they face in the piggery enterprise especially in relation to feeds and disease (especially ASF) challenges. There seem to be a competition for cassava tubers as food for humans and fodders for pigs and farmers lack capacity on alternatives for pig feeding, as many rely on Napier grass as forage.

Other health problems are related to zoonosis and include Brucella, Tryps, Cystercercosis (in Kitoba village), Ebola, TB and CCHF.

The cost of living is rising and there is a growing demand for high quality animal source foods in the district due to the influx of people in the town (urbanisation) as a result of the emergent oil mining business and improved road infrastructure. There are also plans for further investment in water transport by the private sector to improve the link between Uganda and the DRC. There is an agreement between the government and companies engaged in oil exploration such as Tullow on utilisation of local produce (for instance 30% of food for people working on roads and the oil refinery must be sourced locally). Despite this, there is still a high level of food importation from South Africa, and Kenya (especially vegetables such as coriander and spinach), due to inadequacy of local production in terms of quality and lack of a cold chain, especially for meat products. Market for pork is mainly local (within

⁸ Hoima District Development Plan 2011 – 2015.

Hoima, Kampala and Kasese) but also from the neighbouring countries especially the DRC and South Sudan. For the DRC, there is high preference for small-sized pigs that are raised under extensive systems (they are assumed to be more hardy) since they have to be herded from the pier to mountainous areas before their final destination.

NAADS has been working in the district to organise farmers in multipurpose groups. A major initiative for responding to the high demand for pork products has been initiated between Devenish Nutrition (Irish private sector) and Traidlinks who want to establish a model farm in Hoima in addition to setting up a feed mill. The target is the medium-to-large holder farmers who are more commercial oriented. Smallholder farmers may or may not benefit from this initiative depending on the supporting institutions. Other opportunities in the district include road improvement and a plan for construction of slaughter slabs at the sub-county level.

4.2 Results from farmer field visits

4.2.1 Key livelihood activities

Piggery is a key source of income for households in the villages. In most sites more than 60% of the households keep pigs. Most of the pig farmers are smallholders, though the production

department of the Local Government defines a pig unit as comprising at least 6 sows and 1 boar (personal communication by Hoima District Veterinary Officer).

Other key livelihood activities revolve around crop farming and include growing of maize, beans, groundnuts and bananas.

In some villages, horticulture, rice, mushrooms, poultry, coffee

and dairy are also important enterprises. In Hoima TC, off farm income activities such as petty business and artisanry are also common.

In some villages such as Kyamongi and Bujugu, there is poor road infrastructure and children seem malnourished.



Pig farmer in Hoima district

4.2.2 Pig feeding systems and husbandry practices

Pigs are mainly confined (intensive systems) in pig pens in most of the villages though the investment in housing structures varies. Non-government organisations such as CARITAS have been promoting piggery. The pigs are fed on crop residues such as cassava leaves, sweet potato vines, cocoyam, banana fruit and fodder such as Napier grass. Feed supplements include rice bran, maize bran and silverfish (*mukene*). Breeds kept are mainly crossbreeds of European with locals and European with European breeds.

Breeding services – in some sites such as Kyabigambire sub-county (Mparangasi village) farmers source the breeding boar from the Catholic parish for free. In most sites, large sharing of village boars is limited; farmers exchange boars with neighbours. Initiatives such as those by the Jane Goodall Institute provide pigs to farmers through Heifer International.



4.2.3 Market outlets

Market outlets for grown pigs are mainly local traders from within the district, Kampala traders and other traders coming from the DRC, especially in Kitoba sub-county. The latter prefer pigs that are a bit hardy as they have to cross Lake Albert and herd until final destination in the DRC. The price offered by Congolese traders is higher than the local traders. E.g. a pig with approximately 45 Kg carcass weight will be purchased by local or Kampala traders at UGX. 180,000 while the Congolese traders are willing to offer between UGX. 250,000 and 260,000 for the same pig.

Piglets are mainly purchased by neighbouring local farmers and their prices range between UGX 50,000 and 100,000 for improved breeds and between UGX 30,000 and 40,000 for local breeds.



A pork joint in Hoima district

4.2.4 Access to enabling services

NAADS offers advisory services on pig management and feeding (in Kyabigambire). In some of the sites, the Hoima Catholic Development Organisation (HOCADDO) which is a CARITAS initiative, offer advisory services and encourage farmers to confine pigs in pens constructed with locally available materials and having raised floors. The farmers are in groups and also carry out collective action activities such as pooling labour for crop cultivation.

Saving and Credit Cooperatives (SACCOs) exist; for example, in Bujugu village (Bugambe sub-county), members have a savings scheme with loanable funds of up to UGX. 2 Million, which they can borrow and pay back.

Commercial banks do not provide credit to smallholders but DFCU, a local bank is planning to have some credit programs for agriculture.

4.2.5 Farmer groups

There are a number of NAADS pig farmer groups, e.g. Kihangire Women Group which obtains financial credit from FINCA, BRAC, HOKOFAM (this exists in Hoima, Fort Portal and Kasese); collateral is in the form of group savings.

4.2.6 Constraints

- Feed is a major constraint. Most farmers have improved breeds but do not have sufficient feed resources and commercial feeds are expensive.
- African swine fever (ASF) – Farmers sell off their pigs out of panic once they hear of an outbreak or suspect symptoms of the disease amongst their herd.
- Lack of credit

4.3 Organisations visited

4.3.1 Hoima District Agricultural Production and Marketing Department

The District Veterinary Officer, Dr. Barnabas Ntume was our host and made all arrangements for the field scoping visits. He arranged a meeting with the District Production and Marketing Officer, Dr. Charles Kajura who gave us a background on agricultural production in the district and accompanied us to the Traidlinks Uganda office to introduce us to the project managers.

The production department has the following staff involved in livestock:

- 4 Veterinary officers
- 11 NAADS officers (Diploma holders)
- Village veterinarians – more than 20

4.3.2 TraidLinks Uganda

TraidLinks is a Not-for-profit Irish NGO operating in Rwanda, Burundi, Kenya and Uganda. In Uganda, specifically in Hoima district, they have two projects supporting farmers to access viable markets and orienting them towards commercialisation. The focus is on horticulture, piggery and poultry. They carry out capacity building and mentoring of farmers.

The Traidlinks Uganda office in Hoima is willing to host our national staff in the region. Follow up on the hosting agreement is planned.

4.3.3 Bulindi Zonal Agricultural Research and Development Institute

The pig feed challenge has been a great concern for the National Agricultural Research Organisation (NARO). The institute has been promoting the growth of cassava (tubers and leaves) for pig feeds and are promoting improved pig breeds

while also offering capacity strengthening to farmers especially on pig management. Currently, they have a pig multiplication nucleus unit.

One major concern is that piggery does not feature on the list of priority research enterprises for NARO. The Director of research indicated that pig research has been knocked out because of limited resources – they are not a priority in the government policies. However, NARO expressed their interest in working on a pig research programme.

5. Rationale for final site selection

- Lira district – for the Northern region. The district was unanimously selected by stakeholders during the inception workshop, and the observations during the scoping visit confirm the choice.
- Hoima district versus Kibaale: The poor road infrastructure in Kibaale district, necessitates proper investment in a hardy four-wheel drive project vehicle which we currently don't have a budget for. In addition, the sporadic insecurity situation in Kibaale district needs to be considered before investing project resources in the district in the medium term. On the other hand, since this is an Irish Aid funded project, several Irish initiatives exist in Hoima district and it would be worthwhile to create synergies. Therefore, the project will begin its pig value chain activities in Lira and Hoima districts.

Annex

Contacts

1. Dr. Wilson Okwir – Lira District Veterinary Officer/Acting DPO
2. Mr. Kizito – VEDCO Lira Project Coordinator
3. Mr. Bonny – ADINA Foundation Finance and Administrative Manager
4. Dr Peter Sentai – Kibaale District Production and Marketing Officer
5. Dr Sylveste Kumalira - Veterinary Officer, Kibaale
6. Mr. Anthony Lwanga Claret – Station Manager, Uganda Rural Development and Training Programme (URDT):
7. Ms Jacqueline Akello – University Secretary, African Rural University (Kibaale campus)
8. Dr. Barnabas Ntume – Hoima District Veterinary Officer.
9. Dr. Charles Kajura – Hoima District Production and Marketing Officer.
10. Mr. Roy Magoba – Enterprise Development project Manager, Traidlinks.
11. Mr. John Bosco – Agri-supply Chain Project Manager, Traidlinks.
12. Dr. David Hafashimana – Director of Research, BUZARDI.
13. Dr. Gilbert Byenkya - Programme Leader Livestock and Fisheries, BUZARDI.