

More pork by and for the poor: Catalysing emerging smallholder pig value chains in Uganda for food security and poverty reduction

Report of the Irish Aid funded project inception workshop, Mukono, Uganda, 27-28 May 2014



Compiled by Emily Ouma and Brian Kawuma

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Box 30709, Nairobi 00100, Kenya Phone: +254 20 422 3000 Fax: +254 20 422 3001 Email: ILRI-Kenya@cgiar.org

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Introduction

The International Livestock Research Institute convened an inception and planning workshop on $27^{th} - 28^{th}$ May 2014 for the new project, 'More pork by and for the poor'. With funds from Irish Aid, the project aims to catalyse emerging smallholder pig value chains in Uganda for improved food and nutritional security for poor households, improved livelihoods for people working in pork value chains and for better performance of smallholder pig value chains. The project takes a 'value chain' approach, addressing all stages from production to consumption. These aims are to be achieved through a proposed 4-year research-for-development project working with research and development partners to:

- 1. Develop, test and evaluate best-bet options on improved pig husbandry and manure management practices, swine health, breeding management and improved diets to strengthen the pig value chain through improved productivity and environmentally sustainable practices at the farm level.
- 2. Develop, test and evaluate best-bet options on sustainable organisational marketing mechanisms and waste management practices to strengthen the pig value chain through improved pork safety and better access to inputs, services and output markets.
- 3. Develop, test and evaluate best-bet options to increase utilisation of edible pig parts and increase consumer awareness about benefits of consumption of animal source foods.
- 4. Inform policy to recognize and appropriately promote the role of pro-poor pig value chains in Uganda.

Irish Aid has provided project funds for an initial period of 1 year (March 2014 – Feb 2015) in the framework of their current country strategy document 2010-2014 to start off project activities. Consideration of a further funding period will be subject to performance and fund availability in the framework of a new country strategy document.

The new project builds on the results of the Smallholder Pig Value Chain Development (SPVCD) project that was funded by the International Fund for Agricultural Development (IFAD) (2011-2014). The new Irish Aid project is part of the wider pig value chain development in Uganda program of the Consultative Group on International Agricultural Research (CGIAR) Research Program on Livestock and Fish which comprises several associated projects to improve livelihoods and strengthen food and nutritional security through transformation of pig value chains.

Objectives of the workshop and approach

In order to introduce the project to stakeholders in the Uganda pig sector, the project inception workshop was held at the Colline Hotel in Mukono from 27th to 28th

May 2014. The workshop was attended by 51 participants representing Ministry of Agriculture Animal Industry and Fisheries (MAAIF), Ministry of Finance Planning and Economic Development, local government representatives, pig producer associations, private sector, public universities, partner NGOs and ILRI researchers.

Refer to the list of participants in Annex 2. The objectives of the workshop were to:

- Update participants on smallholder pig development in Uganda (past projects, priority constraints and interventions)
- Introduce the new project (goal, objectives and outputs)
- Identify new project sites in Western and Northern regions
- Plan project activities 2014-2015

The workshop was facilitated by Peter Ballantyne, ILRI's head of Communications and Knowledge Management. The approach was participatory and involved presentations, plenary discussions, group work and exercises to ensure structure for realization of the workshop objectives. Refer to the workshop program in Annex 1.

Synthesis of proceedings

Day 1

Setting the scene

The workshop was opened by Dr. Chris Rutebarika, Assistant Commissioner, Disease Control in MAAIF. He prefaced his opening words saying "we are a pork-loving country, despite the problems associated with pigs."

He highlighted the problems caused to farmers by African Swine fever (ASF), which he said can be prevented through established good practices that cut the transmission cycle. He talked about feeds and feeding challenges and suggested that the current pig genepool needs to be improved: "Without proper genetics we will

remain with stunted pigs" as well as pigs unable to resist prevalent diseases. He also touched on issues around food and environmental safety and pig waste management.



Dr. Rutebarika giving his speech, as Danilo Pezo ILRI's country representative listens keenly

Finally, he reflected on the

project design itself. "It is timely," he said, "it builds on the past few years work, and it will build capacities". He called on partners present to make sure that results of research in the five focus districts need to be 'augmented' so they reach all of Uganda's 111 districts. He also called on participants not to forget women's roles in pig production – "men need to grow their own pigs and not just sell the pigs produced by women," he added.

Background of ILRI in Uganda and current Livestock and Fish smallholder pig research for development project activities

After this rousing call to action by Dr. Rutebarika, the ILRI country representative Dr. Danilo Pezo presented the ILRI projects in Uganda and the initial set of results and identified interventions to be piloted and tested in the Uganda pig value chain¹. The workshop participants spent time reviewing these initial set of results and interventions (mainly derived from the SPVCD project), through a world café system to validate the results and interventions that address feed, genetics, health, market, and food safety constraints. Some of the issues raised are as follows:

 $^{^1}$ Ochola (2013), Workshop Report - Value Chain Assessment & Best Bet Interventions Identification, Review of the In-depth Value Chain Assessment and Preliminary Definition of Best-bet Interventions, SPVCD $9^{th} - 10^{th}$ April 2013.

Pig health and husbandry (led by Michel Dione)

- Lack of knowledge by farmers on husbandry practices and management.
- ➤ <u>Intervention</u>: Capacity building/training of farmers on pig husbandry practices
- Poor biosecurity measures for pig diseases along the value chain.
- ➤ <u>Intervention</u>: Review the biosecurity protocols and update them taking into account the local context/awareness campaigns. Test some of these protocols with actors along the pig value chain and monitor for effectiveness.
- Poor disease surveillance systems
- ➤ <u>Intervention</u>: Develop rapid diagnostic tests; mobile phone-based community surveillance system.
- Poor confinement practices
- Intervention: improved tethering methods and design housing models using cheap and locally available material.

Apart from the identified constraints by the ILRI Uganda smallholder pig project team, the following recommendations, gaps and constraints were raised by the partners regarding pig health and husbandry practices:

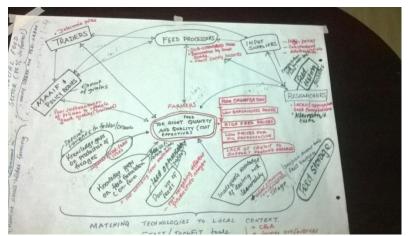
- Strong consideration of housing and feed storage as key for disease control and better feeding.
- Problem with poor policy enforcement especially in relation to quarantine applied during outbreaks.
- Interaction between wild life and domestics pigs and disease implication should be investigated (Queen Elizabeth, Rwenzori, Virunga parks).
- Lack of knowledge on disease control for all value chain actors to be a priority.
- Other diseases except ASF and worms which were the main diseases identified by farmers should be investigated.
- Biosecurity training should include animal health workers, extensions staff and other service providers who are moving from one farm to another.
- Problems related to drug ineffectiveness should be explored. Studies should be designed to look at the quality of drugs in the market as well as the level of resistance of pathogens to antibiotics and acaricides.

<u>Pig Nutrition (led by Ben Lukuyu)</u>

These constraints were divided by the group members into two: constraints associated with the farm-grown feed base and those associated with the commercial feed sector as follows:

Farm-grown feed base constraints

- Knowledge gaps on production of forages (especially on special varieties for fodder).
- Knowledge gaps on on-farm feed formulations.
- Poor use of feeds not



Systemic diagram showing actors and associated feeding related constraints

- targeting different pig production stages.
- Inadequate knowledge on feed conservation to deal with seasonality.

Commercial feed sector constraints

- Poor implementation of policy to regulate feed quality
- Sub-standard feeds due to adulteration of raw materials
- Lack of appropriate feed formulations
- High prices
- Feed safety hazards

The associated interventions were identified and indicated as follows:

Farm level interventions

- Develop and test home-made rations (including swill) based on locally available materials, coupled with a training program.
- Integrate suitable legumes for pigs in existing systems
- Develop and test strategies to overcome seasonal feed availability
- Training on adequate use of feeds.
- Consider interaction between pig breeds and feeds.

Commercial feed sector interventions

- Catalyse feed certification schemes
- Training and certification schemes
- Address feed safety hazards
- Organise farmers to access feeds cost-effectively (e.g. agreements with the feed companies)

Food Safety (led by Florence Mutua)

The following best bets were identified:

- More research to confirm zoonotic disease occurrence: meat inspectors
 currently rely on visual inspection which is not reliable. It would be
 interesting to know, for a disease like tuberculosis, which is the risk age
 group, and how long can an infected pig remain infected? TB is known to be
 chronic and pigs have short production cycles. There is need to document
 aflatoxin levels in pigs as this is an important disease in pigs and poultry.
- proper disposal of carcasses at farm and slaughter level- which would be part
 of biosecurity for reduced risk of zoonotic disease transmission.
- sensitizing communities about local myths surrounding pork consumption, women in some communities don't take pork.
- community training on food handling and preparation methods by farmers / consumers of pork in the communities
- development of better waste disposal systems for better handling of farm manure and waste at slaughterhouse(s)
- devolve slaughter slabs and involve private sector in the management, the centralized slaughtering will need to be backed by law.
- strengthen producer associations (but also consider one that includes all categories)
- There is need for research around the food safety problems arising from consumption of other foods (vegetables) served together with pork.
 Sometimes when a problem happens (diarrhea), pork is perceived to be the cause. Some of the vegetables may have been sprayed with chemicals presenting additional health risks.
- Training of pork inspectors and workers of food service establishments (on processing, packaging and transportation) in addition to butcher / slaughterhouse training by ILRI.
- Developing a quick system that would be used to certify the meat is fit for consumption before it is released for consumption. This would be backed by quality checks along the value chain at scheduled times.
- address sanitation issues at slaughterhouses, particularly provision of water
- Sensitization of pig farmers on management of the enterprise. Some of the farmers (actors) have "picked up pig farming for survival" and pay less attention to improve the enterprise.
- There is need to capture more data on practices surrounding pork and pork consumption, for risk practices that can predispose consumers to zoonotic infections; when there is lack of firewood alternative methods are used

- which may not provide the required heat to ensure proper cooking of the meat.
- Prioritization of diseases- based on production and health impacts- then focus on those diseases where the impact is high.
- Utilize current extension systems at local government levels- these have FM radio with free airtime= need to capture more details. The radios would be used to create awareness on food safety and zoonoses while engaging with other actors.
- Establishment of basic certification systems at the farm level would help address food safety, borrow from Namibia system
- More research (review more literature) to confirm presence of lead (Pb) in pig manure and provide more information on how lead enters the pig value chain? Which areas are more prone? May require sampling of environment / effluents
- Why eat pork that is heavily infested? need for sensitization, at all levels; one
 workshop participant almost stopped consuming pork after listening to a
 presentation on pig parasites reported in Wambizzi abbatoir.
- More research on antibiotic resistance- arising because farmers will want to try treatment option available, quacks normally mislead the farmers with cocktails that are thought to manage ASF and other diseases (a local belief).
- Role of inspectors- they can be engaged at the entire value chain, instead of just at postmortem; sometimes there is impartial inspection where the internal organs

The interventions were ranked by the participants, organized into 2 groups.

Ranking (1st group)

- ⇒ development of slaughter slabs
- ⇒ comprehensive food safety training for everyone in the value chain
- empower producers (and other actors) to have their own local selfregulation, they can also put incentives for themselves- for example marketing;
- ⇒ research around food safety issues, to identify critical control points for interventions; winning the support of policy makers .

Ranking (2nd group)

- ⇒ sensitization and awareness creation
- ⇒ inspectors to regulate the entire value chain, including tests for aflatoxins in feeds,
- ⇒ confirmatory tests at the districts to quantify the risks

Pig/pork marketing (led by Peter Lule)

Constraints

- producers are not organized into groups to bargain for better prices
- low producer price offers for pigs
- lack of transparency in pig trading. Price offers are based on visual estimation of pig weights by traders.
- lack of reliable profitable market outlets
- lack of market information

The following best–bet interventions were identified and a number of issues raised regarding their implementation:

- Business Hub model linking producers to reliable markets and access quality inputs and output markets.
 - Traders are a key to success of a business model. What are the incentives for the traders in this pig business hub model?
 - It is important to pilot in a few places such that the hub grows with the market forces.
 - The dairy hub model has a product that is daily (milk) that is why it has been successful. How are you going to handle the seasonality of the pig products – the focus product of the model?
 - O Who will take the lead in the business hub model?
 - o How will it be sustained?
 - O What will be the coverage of the business hub?
 - Issues of hubs being a source of disease spread. How will you handle animals that are brought to the business hub collection center and are not bought?
 - Hub model should be built around the slaughter slab.
 - o Promotion of activities of some of the innovations e.g cold chain
 - Think of the transportation of pork to the urban centers rather than live pigs.

Capacity building

- o devise and popularize techniques to estimate pig live and carcass weights
- o facilitate in establishment of trader and producer associations
- Groups should be organized into cooperatives in order to be recognized as legal entities for purposes of business operations.
- o qualities issues should not be overlooked when transporting pork
- standardization should not only consider weight issue but also quality issues

Introduction of the Irish Aid funded project – "More pork, by and for the poor"

The Irish-Aid funded project leader Emily Ouma introduced the project pointing out some of the challenges and constraints in the value chain, including:

- Poor husbandry practices and high mortality rates from diseases such as African swine fever (ASF) due to poor implementation of biosecurity measures.
- Inbreeding and poor selection of breeding stock.
- Seasonality of feed supply and lack of capacity to develop nutritionally balanced feed rations.
- High costs and poor quality of commercial feeds.
- Lack of appropriate organisational models to enhance access to quality inputs, services and pig markets.
- Pig farmers lack voice and tend to carry out individual sales.
- Poor access to extension, quality animal health services and financial services.
- High transaction costs incurred by pig traders transport and search costs.
- No structured pig meat inspection and lack of capacity by meat inspectors.
- Poor waste management e.g. abattoirs (drainage of blood into water bodies).
- Practices that could increase the risk for foodborne and occupational diseases.
- Poor household nutrition.

She also drew attention to the project's focus on gender, ensuring that women as well as men benefit along the chain.

The goals of the new four-year research-for-development project are to improve:

- food and nutritional security for poor households,
- livelihoods for value chain actors, and
- performance of smallholder pig value chain systems in selected areas in Uganda.

It will achieve these by testing and piloting best-bet options (entry points) to improve on-farm productivity, household nutrition, and efficiency and pork safety in the marketing chain based on interventions that address the identified constraints. These will produce validated options to form part of an integrated intervention strategy and an evidence base demonstrating the benefits such a strategy can achieve.

Uganda pig value chain impact pathways

Michael Kidoido from ILRI's monitoring and evaluation unit presented the value chain impact pathways that would potentially lead to the attainment of the Uganda pig value chain program vision. The Livestock and Fish CGIAR research program's vision for the Uganda Pig Value Chain is "to increase **pig productivity**, **household income** in

the smallholder pig production systems, and the **performance** of the associated value chain actors, in order to improve poor consumers' **access to high quality** pork and pork products and ultimately contribute to resilient livelihoods in an **eco-friendly manner.**" Three main impact pathways have been identified and were presented:

- innovative models for increasing farmers' access to quality and reliable inputs and services for improved pig productivity (productivity and income).
- strategies for improving supply and access to quality and safe pork products (more and safe).
- snnovations for improving farm management and disposal of pig waste (environment and waste management).

The participants had a chance to reflect on the identified pig impact pathways and discuss each outcome and the specific activities and interventions leading to the outcomes. For instance the group reflections on impact pathway 2 (more and safe pork) reported the following outcomes and associated activities which are in line with on-going or planned activities:

Outcome 1: Reduced exposure to zoonotic diseases

- Training and capacity building of all actors along the value chain— to create awareness about disease, better pig husbandry practices
- training on proper biosecurity for all actors
- Linking farmers to existing extension partnerships- government and NGOsthis would save time, cost, and avoids duplication. The IFAD / Irish Aid project would provide training resources
- improve disease diagnostics through research (new tests, improve on the existing ones)
- improve certification system MAAIF has to take a lead

Outcome 2: Increased consumption of pork

- Assessment of consumer demands / needs, what does the consumer require?
- social marketing on the nutritional and health benefits of pork
- advertise the different products through farmers groups
- diversity product development from pork and pork products
- provide nutrition education to population through general media, medical staff, producer and women groups, extension
- increase access to pork and pork products by establishment of hygienic standards while marking pork
- gender sensitization to increase pork consumption at home- for women and children

 School programs to popularize pig farming and market pork, the schools would keep pigs, slaughter to provide pork for feeding programs and sell extra pigs to earn income. It is sustainable but schools will need to be carefully selected- not to include muslim students.

Outcome 3: Increased supply of pork

- use women groups to promote pork- where the women are already organized
- Provide cold chain facilities to preserve pork that is not ready to eat; but
 what about pork that is already prepared, how can you preserve it so that it
 can be carried elsewhere and consumed? It would be important to invite
 government to meet some of the costs.

What would be the priority activities?

- ⇒ Training and organizing farmers
- ⇒ Provision of cold chain facilities

Update on the Uganda pig platform

The first day ended with updates on some cross cutting issues. Michel Dione provided an update on the Uganda pig platform. The platform was initiated after the Uganda pig value chains impact pathway workshop for the Livestock and Fish CRP held in Kampala on "27th – 28th June 2013². A major need for such a platform was expressed by the stakeholders in order to raise the visibility of the pig sector in Uganda. A steering committee comprising volunteers from several organizations was created including the following organisations; Kampala Capital City Authority (KCCA), Volunteers Efforts for Development Concerns (VEDCO), The Netherlands Development Organisation (SNV), Agro Empowerment Centre (AEC), Uganda Pig Organization (UPO) Masaka District Veterinary Office, Mukono District Veterinary Office and the International Livestock Research Institute (ILRI). The main objectives of the Platform are to:

- create a forum where all actors of the value chain can meet and address their constraints and issues related to the pig value chain in Uganda
- help different players to come together and coordinate efforts
- enhance synergies among actors to facilitate learning and use of knowledge disseminate information and support organizations
- bring together various organizations and allow them to share knowledge/experience through interaction
- enhance communication and innovation capacity

² Stuart W. (2013). Report on the Uganda pig value chains impact pathways workshop.

• foster linkage between stakeholders and raise the visibility of the pig value chain

Several meetings have been held by members of the steering committee to chart the way forward for the platform. Due to its comparative advantage and experiences in leading multi stakeholder platforms, SNV has signed an agreement with ILRI to lead the Uganda MSPs.

Day 2

Part of the second day was spent in detailed activity planning for the coming 12 months. The work plans are presented in Annex 4.



Activity planning by participants

Site Selection

The site selection identification process was presented by Emily Ouma. The on-going pig value chain project (IFAD-EC funded smallholder pig value chain project) used the same process to identify 3 districts (Masaka, Kamuli and Mukono) where the pig value chain work has been taking place. The Irish Aid funded project will continue to work in the same districts but will expand to two additional districts in the Northern and Western region. The following steps were followed in the site selection process:

Step 1: Geographical targeting using Geographical Information Systems (GIS) characterization.

Step 2: Stakeholder consultation of step 1 and definition of "soft" criteria.

Step 3: Minimum checklist



Participants discussing "soft criteria" for site selection

to gather data for more specific site selection (counties and sub-counties).

Step 4: Analysis of steps 1-3 and final site selection

The GIS process is based on 2 basic criteria (pig population density and poverty levels). It targeted 3 types of pig value chain domains: Peri-urban to urban; Rural – to-urban; Rural –to- rural. These domains are classified based on travel time from a sub-county to the nearest city with more than 50,000 persons. A total of 3 districts in the Northern region and 4 in the Western region fitted the GIS criteria. The participants identified 5 other soft criteria to be considered besides the spatial analysis for the final district selection:

- access to complementary inputs and services
- poor nutrition status
- pork production and consumption in tandem with cultural beliefs
- high pig disease burden
- presence of partnerships for complementarities (not duplication)

A participatory voting exercise was then conducted using 5 small cards by each participant scoring the relation suitability of each priority districts in the Northern and Western regions against the five soft criteria: The voting process which excluded staff/participants from ILRI was well received and the results are presented in Table



Voting for the potential districts in the Northern and Western regions

Table 1: Results of participatory voting for additional 2 districts in the Western and Northern regions for pig value chain activities

District	Access to complementar y inputs	Poor nutrition status	Value chain in tandem with cultural beliefs	High pig disease burden	Partnerships	Votes	Rank based on region
Gulu (N)	19	5	10	5	8	47	2
Lira (N)	42	20	17	7	19	105	1
Pader (N)	0	1	0	1	0	2	3
Kasese (W)	8	12	8	11	4	43	3
Hoima (W)	30	6	12	5	7	60	2
Kibaale (W)	24	12	7	13	7	63	1
Kabarole (W)	0	0	0	0	0	0	4

Way forward

- site scoping visits by end of June 2014.
- adaptation and implementation of toolkit for Rapid Value Chain Assessment (VCA) ready by end June 2014.
- conclusions on project sites mid July

• baseline and diagnostic surveys at selected project sites: Aug – Sept 2014.

Project Name

Isabelle Baltenweck led the participants through a session to identify preferred project names for the Irish Aid funded Uganda pig project. A number of project name propositions and variants were made by the participants as follows:

- Pig Industry Growth (PIG)
- Uganda Pig Industry Growth (UgandaPIG)
- Project on Pig Industry Growth (ProPIG)
- POrk through Research and Knowledge (PORK)
- More POrk through Research and Knowledge (MorePORK)
- Uganda POrk through Research and Knowledge (UgandaPORK)
- Nutrition and Pigs (NutriPigs)
- Uganda Pig Project (UPP)
- Uganda Pork Project (UPP)
- o More Pork for income
- PIg for Nutrition and Growth (PING)

The proposed names were then subjected to a secret voting process. Each participant was provided with the full list of the proposed names through SurveyMonkey - a tool for online surveys – to identify the most preferred project name for the Irish-Aid project. The survey was sent to 24 participants, and 21 sent in their responses. Figure 1 shows the results summary.

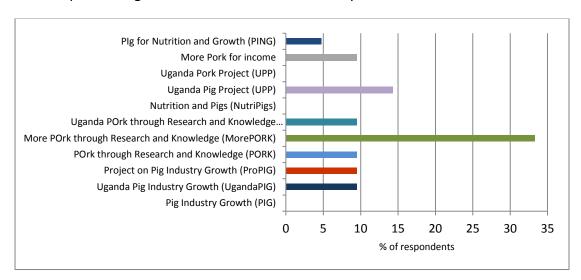


Figure 1: Preferred project name

The most preferred project name by a majority of participants was More Pork through Research and Knowledge, with the acronym "MorePORK".

Annexes

Annex 1: Workshop Program

PROJECT INCEPTION AND PLANNING WORKSHOP Colline Hotel, Mukono, Uganda 27 – 28 May 2014

PROGRAM

Time	Activity	Responsible
Tuesday	27 May	
8.00	Registration of participants	R. Miwanda
9.00	Opening prayer (Grace)	G. Babirye
	Introduction of participants	P. Ballantyne
9.30	Workshop objectives, agenda and process	P. Ballantyne/E. Ouma
9.45	Opening of the workshop - Assistant Commissioner, Disease Control, MAAIF	C. Rutebarika
10.00	Background of ILRI in Uganda Current Livestock and Fish and smallholder pig research for development project activities in Uganda Vision and IPs	D. Pezo
10:30	Coffee and photo	
	World Café: Smallholder pig value chain constraints and proposed entry points/best bets related to:	
11.00	Animal health and management	M. Dione
	Breeds and feeds	B. Lukuyu
	Marketing and value chains	P. Lule
	Food safety	F. Mutua
12.30	Introduction of the Irish Aid funded smallholder pig project	E. Ouma
13:00	Lunch	
14.00	Q&A on the project	
14.15	Impact pathway and IDOs presentation (30 min) - he presents the 3 Impact pathways (narrative report) Emily 1 slide	M. Kidoido
14:45	Reflection on the identified smallholder pig impact pathways (Groups) Nutrition (M. Kabahenda/F. Mutua); productivity income (L. Mayega/I. Baltenweck); waste/NRM (D. Kugonza/B. Lukuyu). For each pathway, look at the outcome; revisit the specific activities and interventions – are these the right ones. Any missing? Each group appoints a rapporteur.	P. Ballantyne
15:30	Tea/Coffee break (15 min)	
16:00	Brief report back (implications for this project)	P. Ballantyne
16.30	Critical cross-cutting interventions (10 mins each)	
	Uganda pig platform	M. Dione
	Capacity Development	D. Brandes
	Gender	Emily/Monica?
17.15	Wrap-up of 1 st day – reflections, preview day 2	Participants G. Babirye

Time	Activity	Responsible
Wednesday 2	28 May	
8.30	Prayer	C. Mulindwa
	Day 1 feedback; day 2 process/objectives	F. Mutua
9.00	The site identification process	E. Ouma
9.20	Group discussions and agreement on the "other soft	I. Baltenweck
	criteria' for 2 additional district level sites.	
10:30	Tea/Coffee break	
11.00	Project activity planning 2014-15 – group work (production level)	M. Kidoido
	 Pig health, biosecurity and farm management H. Kiara/Z. Nsadha 	Activities, milestones, deliverables of THIS
	Feeds and feeding – B. Lukuyu/N. SSekabunga	project
	 Capacity building for farmers and farmer 	
	groups – D. Brandes/E. Mulumba	
	 Waste management (IMOs) - E. Zziwa/ D. Kiryabwire 	
	Alliance building, policy advocacy, platform –	
	J. Semujju/M. Kidoido	
12.30	Group highlights (5 mins each)	Zoom in major deliverables
13.00	Lunch	
14.00	Project activity planning 2014-15 – group work (post-production level)	M. Kidoido
	 Breeding management – H. Mulindwa/K. 	Activities, milestones,
	Marshall	deliverables of THIS
	 Business hubs – I. Baltenweck/M. Kabagabu 	project
	 Consumers awareness and nutrition – M. 	
	Kabahenda/H. Acham/E. Ouma	
	Food safety and waste management slaughter The state of the s	
	node – F. Mutua/ I. Opio	
	Capacity building for service providers and business groups	
16.00	business groups – D. Ongeng/D. Pezo Group highlights (5 mins each)	Zoom in major
10.00	Group Highlights (3 Hills Edth)	deliverables
16:30	5 districts – pitching	E. Ouma/I. Baltenweck
	Quick scoring/prioritizing/selecting the district sites	2. Camaj ii Balcelli Coll
17:00	Closure and next steps	D.Pezo/E.Ouma

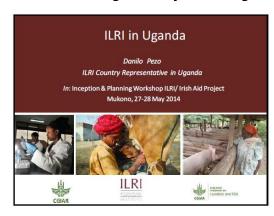
Annex 2: List of participants

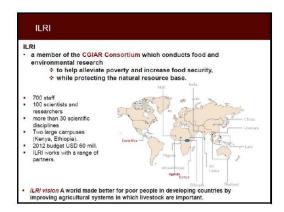
Nos	Names	Organisation	Contact - email
1	Christopher Mulindwa	Pig Production & Marketing Ltd.	chrismulindwa@pigfarmers.co.ug
	Cinistophici Wainawa	SNV Netherlands Development	emismamawa@pigrarmersico.ag
2	Joseph Semujju	Organisation	jsemujju@snvworld.org
3	Babirye Grace	VEDCO	babiryegrace@yahoo.com
4	Acham Hedwig	Makerere University	hacham@caes.mak.ac.ug
5	Kwizera Herbert	Kyambogo University	hkwizera@kyu.ac.ug
6	Micheal Kidoido	ILRI NBO	M.Kidoido@cgiar.org
7	Henry Kiara	ILRI NBO	H.Kiara@cgiar.org
8	Peter Lule Mulindwa	Makerere University/ILRI	
9	Henry Mulindwa	NALIRRI	mulindwaha@yahoo.com
10	Esau Galukande	KCCA	esaugalu@yahoo.com
11	Moniruzzaman A.F.M.	BRAC - Uganda	moniruzzaman.afm@brac.net
12	Lawrence Mayega	Masaka DVO	mayeganyombi@yahoo.com
13	Noah Mayanja	Kamuli	kasibuled@yahoo.com
14	Michael Apamaku	Veterinarians Without Borders - VSF	mabamaku@ucdavis.edu
15	Vicky Adongo	Fresh Cuts	vadongo@freshcuts.biz
16	Richard Bakadde	Agro Empowerment Centre	richardbakadde@yahoo.com
17	Margaret Kabahenda	Makerere University	
18	David Kiryabwire	Mukono DVO	kagovet@gmail.com
19	Florence Mutua	ILRI NBO	F.Mutua@cgiar.org
20	Michel Dione	ILRI Uganda	M.Dione@cgiar.org
21	Joseph Sserugga	MAAIF	jsserugga@yahoo.com
22	Ben Lukuyu	ILRI - NBO	B.Lukuyu@cgiar.org
23	Simon Lubega Mateega	Wambizzi Abattoir	lubegasimon@yahoo.com
24	Barnabas Ntume	Hoima Local District	bntume@yahoo.com
25	Kenneth Okanga	Makerere University	078-2-964068
26	Peter Ballantyne	ILRI - Addis	P.Ballantyne@cgiar.org
27	Emily Ouma	ILRI Uganda	E.A. Ouma@cgiar.org
28	Rachel Miwanda	ILRI Uganda	R.Miwanda@cgiar.org
29	Paul Basaija	ILRI Uganda	P.Basaija@cgiar.org
30	Danilo Pezo	ILRI Uganda	D.Pezo@cgiar.org
31	Godfrey Kalule	Kasese District Local Government	dvokasese@gmail.com
32	Robert Natumanya	Makerere University	rnatumanya@agric.mak.ac.ug
33	Mable Kabagabu	Technoserve	mkabagabu@gmail.com
34	Elizabeth Alyano	Adina Foundation	elizabeth.alyano@adinafu.org
35	Wilson Okwir	Lira District Local Government	wilsonokwir@yahoo.com
36	Zachary Nsadha	COVAB - Makerere University	znsadhansadha@gmail.com
37	Innocent Opio	Green Heat (U) Ltd.	
38	Tony Aliro	Gulu District Local Government	alirotony@gmail.com
39	Eric L. Kagezi	Chain Uganda	kagericlerner@gmail.com
40	Moses Amanya	Kibaale District Local Government	dvokibaale@gmail.com
41	Robinson Kabanda	KCCA	
42	Patrick Okello	Uganda Bureau of Statistics - UBOS	
43	John Jagwe	FARMGAIN Africa	johnjagwe@gmail.com
44	Isabelle Baltenweck	ILRI - NBO	I.Baltenweck@cgiar.org
45	Diana Brandes	ILRI - NBO	D.Brandes@cgiar.org
46	Evarist Mulumba	NAADS	Emulumba@naads.or.ug

Annex 3: Powerpoint presentations

All presentations can be found online: http://livestock-fish.wikispaces.com/uganda_pigs_inception

Annex 3.1 Background of ILRI in Uganda





Opportunities in the African livestock sector

- The global livestock sector is growing rapidly and will continue to do so for the foreseeable future
- Major opportunities exist for Africa's livestock sector
- Africa recognizes the central importance of agriculture for development – but livestock are still often under-represented We all need to work changing it
- Research solutions are needed to transform Africa's livestock sector
- New investments and institutional reforms are also needed to take R4D successes to scale

ILRI 🕌



Challenges in the livestock sector in Africa

Provides food and nutritional security

Empowers economic development BUT equitable development can be a challenge

Improves human health

BUT animal-human/emerging diseases and unsafe foods need to be addressed

Enhances the environment

BUT pollution, land/water degradation, GHG emissions and biodiversity losses must be greatly reduced

ILRI



ILRI projects in Uganda

- Catalyzing the emerging smallholder pig value chains in Uganda to increase rural incomes and assets (IFAD-EU)
- Risk-based approaches to improving food safety and market access in informal markets in sub Saharan Africa (RMZ-GiZ)
- More pork by and for the poor: Catalyzing emerging smallholder pig value chains in Uganda for food security and poverty reduction (Irish Aid)

ILRI GAL



ILRI projects in Uganda

- East African Dairy Development (B&MG)
- Dairy Genetics East Africa (SIDA)
- Peste des petits ruminants (PPR): developing a pan African strategy for disease control (CSIRO)
- Developing livestock traceability systems for domestic and export markets (AU-IBAR).

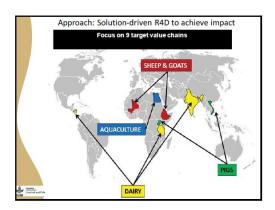
ILRI 🖐

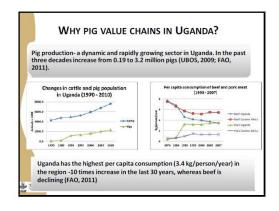


Annex 3.2 The IFAD-EC funded Smallholder pig value chain project – current activities

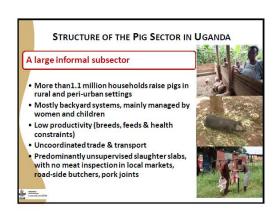


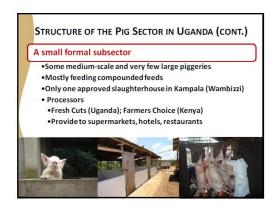


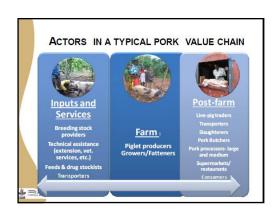








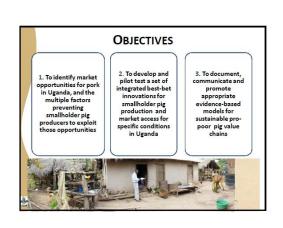














- SPVCD project funded by IFAD/EU
 - Period: 1st Jan 2011/31 Dec 2013
 - NCE: 1st Jan -31st Dec 2014
- Opening of ILRI office in Kampala (March 2012)
- ILRI-Uganda team recruitment completed (September 2012)
- Works closely with the Safe Food Fair Food Project, funded by BMZ - GiZ (CRP 4.3)



Progress done (1)

- Stakeholders Consultation Workshop (June 2011)
- Scoping of potential areas for the SPVCD operation and contacts with partners (May - July 2012)
- Situational Analysis: "The conditions within which the smallholder pig value chains operate in Uganda: An overview of past trends, current status, and likely future directions" (July - December 2012)
- Outcome Mapping and Site Selection Workshop (October, 2012)



Progress done (2)

- Development and testing of a tool-kit for VCA adapted to smallholder pig value chains (in collaboration with other CRP 3.7 projects).
- Application of VCA tool-kit in Kamuli, Masaka and Mukono (i.e., rural & peri-urban farms in 35 villages).
- Preliminary identification of best-bet interventions to tackle relevant constraints and opportunities (workshop April 2013).
- Impact pathways in smallholder pig value chains in Uganda (workshop June 2013).
- Disease prevalence surveys in the three districts (June 2013 some analysis on going).



Progress done (3)

- Benchmarking surveys at different nodes of the VC (farm, input & service providers, live pig traders, retailers, etc.).
- Feedback on VCA results in Masaka and Mukono (workshops November 2013). Kamuli is pending.
- Analysis of feeds used in Ugandan pig systems (on going). Assessment of body measurements as predictors of live weight in Ugandan pigs (field work Oct. – Nov. 2013). Feeding trials assessing local feed resources in Masaka (on
- Developing of training modules on key topics of the smallholder pig VCs (on going).
- Training of extension staff on facilitation of participatory learning (March 2014).
- Research results presented in several international meetings and articles published.

Some strategic partners

- MAAIF (Department of Livestock Health and Entomology).
- NARO / NaLIRRI.
- Local governments of Masaka, Mukono and Kamuli (through the District Veterinary Officers).
- VEDCO (particularly in Kamuli district). Makerere University
- NAADS (in the three districts where the project operates).
- SNV Uganda SLU Sweden
- BRAC
- Pig Production & Marketing Ltd.

- Wambizzi Coop. The Agro-Empowerment Center Uganda Piggery Organization (UPO)



Related projects Safe Food Fair Food (ILRI; donor BMZ-GiZ) (same sites than SPVCD) Epidemiology of ASF: a pre-requisite to control (ILRI/BeCA; donor AusAID) (Eastern Uganda/ Western Kenya) Assessing the impact of African Swine Fever in smallholder pig systems and the feasibility of potential interventions (SLU/ILRI; donor SIDA) (Northern Uganda) Livestock Data Innovation Project (ILRI; donor BM&G) (mainly Central Region) Factors influencing successful inclusion of small farmers in modern value chains around the Lake Victoria Basin area in Uganda (ILR/Shoreline Services Ltd.; donor CTA) (Central & South Western Uganda)

Team members Danilo Pezo – Project Leader/Animal Nutritionist (ILRI) Emily Ouma – Agricultural Economist (ILRI) Michel Dione – Animal Health/ Epidemiology (ILRI) Natalie Carter – Visiting Scientist, PhD student (ILRI) Ben Lukuyu – Animal Nutritionist (ILRI) Brigitte Maass – Forage Scientist (CIAT) Richard Bishop – Molecular Biologist (ILRI) Karen Marshall – Geneticist (ILRI)

From SFFF (under CRP 4.3) Kristina Rösel – Project Coordinator

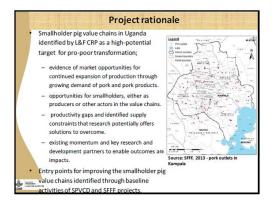


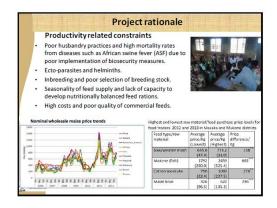


Annex 3.3 Introducing the Irish-Aid Uganda pig project – "More pork by and for the poor"

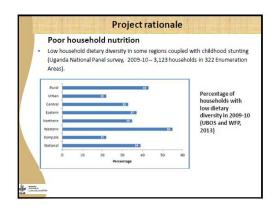








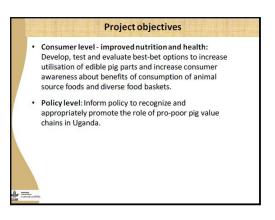


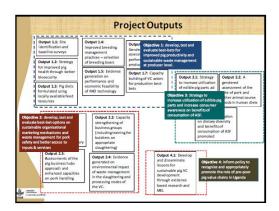


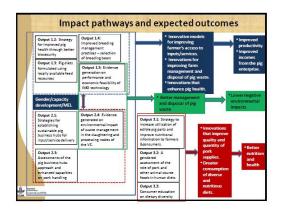






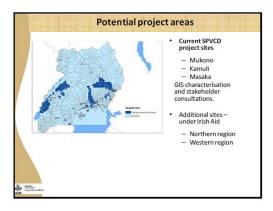














Annex 3.4 Uganda pig value chain impact pathways



Uganda Pig Value Chain Problem Context

- The overarching problem is the low prioritization of the pig sector in the National Agricultural Sector Policy Framework-the Development Strategy and Investment Plan:
 - i. Most probably because grass root information is not available for wider policy planning
 - ii. Lack of adequate information about pig potential and profitability
- 2. Low productivity due to the:
 - i. dominance of the low input-low output production system
 - poor pig health management for common diseases and parasites including African Swine Fever (ASF), cysticercosis, helminthiasis, and many external parasites;

- 3. poor feeding practices and poor quality of feeds:
 - iii. Cost of feeds is unaffordable to many
 - iv. Farmers are not well organized in groups to influence
 - v. Substandard feed and the feed industry is not adequately regulated
- 4. poor husbandry practices
- 5. absence of appropriate breeding strategies.
 - iii. High rates of inbreeding and negative selection
 - iv. Few pig breeding centers

- 6. Inadequate access to services such as veterinary services, extension, financial and market services
 - Dealers often supply sub-standard products
 - ii. Poor biosafety practices
- 7. Marketing is mostly localized and internal due to weak linkages between value chain actors because of not being organized to exploit market potentials

COMMON AND FOR

Value chain program vision statement

"The Livestock and Fish CGIAR research program's vision for the Uganda Pig Value Chain is to increase pig productivity, household income in the smallholder pig production systems, and the performance of the associated value chain actors, in order to improve poor consumers' access to high quality pork and pork products and ultimately contribute to resilient livelihoods in an eco-friendly manner."



What would value chain actors want to see in a successful value chain?

- 1. Poor pig value chain actors would want to:
 - i. earn sustainable and reliable income,
 - ii. be heard and be able to influence,
 - iii. be capable of producing, organizing, and marketing their pig products,
 - iv. access technical, marketing, and financial support, and
 - v. be connected to wider value chains.

Combine and Fide

- Wider pig value chain system actors would want to have:
 - i. access to safe and high quality pork products,
 - ii. consistent and reliable supply and demand for pork products,
 - iii. legal policy arrangements that support contracts,
 - iv. reduced negative environmental impacts of pig production, and
 - lower transaction costs and increased coherence between chain segments.

3. Wider stakeholders including (development agents and researchers) would want to see:

- high potential to consume pork products,
- ii. high return on investment/value for money in pig production, evidence of potential for the pig industry

Value chain program goals

- 1. Improved livelihoods, incomes, and assets of smallholder pig producers, especially the vulnerable, in a sustainable manner through increased productivity, reduced exposure to risk, improved market access, and lower associated negative environmental impacts.
- 2. Poor consumers have sustainable access to affordable, high quality, and safe pork and pork products.

Impact Pathways

- 1. Innovative models for increasing farmers' access to quality and reliable inputs and services for improved pig productivity (productivity and income).
- 2. Strategies for improving supply and access to quality and safe pork products (more and safe).
- 3. Innovations for improving farm management and disposal of pig waste (environment and waste management).



Impact pathway 1: Innovative models for increasing farmers' access to quality and reliable inputs and services for improved pig productivity.

Anticipated impacts and outcomes:

- increased household income from improved productivity and $farmers\ managing\ pig\ production\ in\ a\ profitable\ way$
- √ farmers use better production practices
- √ Farmers commercialize pig production, acquire good business practices, and consider pig production as non-risky
- Mainly through access to information and knowledge on pig husbandry through collective action, credit and financial institutions provide credit facilities for the various stages of the value chain, establish more collection centers

oimproved productivity from

- \checkmark increase stocks of high quality, healthy and better fed pigs, farmers access quality and affordable inputs and services
- √ value chain actors accessing information on improved management and biosecurity
- √ farmers access quality inputs and drug shops/dealers provide quality products, pig feed processors/dealers produce feeds according to recommended ingredients and feed rations

- as regulatory bodies fully implement policies and regulations
- √ farmers use affordable diets based on locally available feed resources
- √ farmers access genotypes tailored to the local conditions/environment and implementation of appropriate breeding strategies e.g proper selection and use of local boars
- √ farmers organize in groups for improved efficient and reliable access to inputs and services could be achieved through development of sustainable pig marketing hubs

Key program outputs

- o Improved biosecurity measures along the value chain
- o A genetic selection plan and national breeding strategies
- Improved management strategies and rapid diagnostic tests for priority diseases
- o Feed rations formulated from local materials
- o Strategy for building extension capacity
- Innovative models of sustainable and well organized pig business hubs
- o Integrated strategy for pig health, zoonosis, and biosecurity
- Credit and financial products that are appropriate to smallholder farmers



Impact pathways 2: Strategies for improving supply and access to quality and safe pork products.

Anticipated impacts and outputs

- o Improved household nutrition and health status arising from:
 ✓ Increased supply of pork and pork products
 - Overall increased prioritization and investment in the pig sector
 - policy makers adequately access and use information to plan for the sector
 - Other stakeholder use the information to advocate increased prioritization of the pig sector

✓ Increased consumption of pork and pork products

- Increased demand for pork products as consumers access better information on quality and nutrition of pork and pork products
- Dissemination of more positive information about pork and its products
- Innovative pork and pork products marketing strategies for instance establishment of cool chain facilities

Constant and Fals



- ✓ Reduced exposure to zoonotic risks
 - •Fewer disease infested pigs and pork products reaching the market
 - Farmers selling disease free animal and pork products
 - Value chain actors adhering to biosecurity measures
 - Processors inspectors accessing training health and safe pork handling

Key program outputs

- Integrated strategy for pig health, zoonosis, and biosecurity measures
- Strategy for communicating and disseminating information on role of pig industry and its products
- Strategies for strengthening piggery farmers' institutions





Impact Pathway 3: Innovations for improving farm management and disposal of pig waste

Impacts and outcomes

- Same or better status of the environment via better management and disposal of pig waste
 - ✓ Butchers and abattoir managers use proper slaughter management practices
 - \checkmark Appropriate authorities regularize and centralize pig slaughtering
 - $\checkmark \ {\bf Authorities \ fully \ implement \ regulations \ on \ pig \ waste \ management}$ and disposal
 - ✓ Increased efforts by government, research institutions and nongovernment organizations to provide extension information on pig waste management e.g use of manure to produce biogas



Potential program outputs and interventions

Outputs: strategies for regulating pig waste management and disposal through:

- An innovative integrated model for regulating and managing pig waste
- $Enhancing \ the \ capacity \ of \ extension \ staff \ to \ promote \ better \ pig \ was te$ management Building the capacity of regulatory bodies to implement pig waste
- management and disposal regulation Promote and build capacity of partners for increased use of pig waste
- for biogas production
- Generate and disseminate information about pig waste management

Initial steps to implementing the program Impact Pathway

I) Implementation of the Smallholder Pig Value Chain Development (SPVCD)
 Reaction of the pig value chain platform/or a national pig forum
 With the objective of facilitating collective action and learning towards addressing the Uganda pig value chain challenges

- That the platform in driven by shared vision
- That the platform in driven by shared vision
 Need to develop capacity for designing such as platform
 Gave the examples of UPO although this platform would be more national
 Members of the taskforce:
 Sarah Matovu (SNV)
 Nancy Rapondo (VEDCO)
 Michel Dione (ILRI)
 Richard Bakkade (UPO)
 Patrick Sekimpi (UPO)
 Robinson Kabanda (KCCA)



Annex 3.5 Site selection for Uganda pig value chains







Site selection for Uganda Pig Value Chain

Emily Ouma

Irish Aid Project Inception/Planning workshop, held on 27th – 28th May 2014 at Colline hotel, Mukono

Site selection

- Process

Step 1: Geographical targeting using GIS characterization.
Step 2: Stakeholder consultation of step 1 and definition of "soft" criteria.

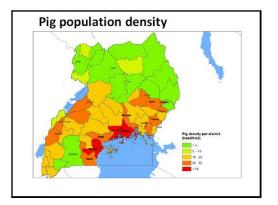
Step 3: Minimum checklist to gather data for more specific site selection (counties and sub-counties).

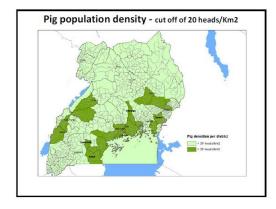
Step 4: Analysis of steps 1-3 and final site selection.

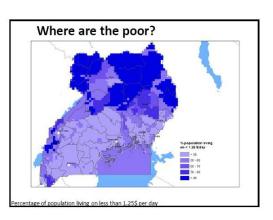
- What is your contribution to this process?
- Help us identify other non-GIS criteria for site selection (local knowledge).
 Confirm whether the potential sites (GIS-characterisation and soft criteria) are appropriate.

GIS Characterization

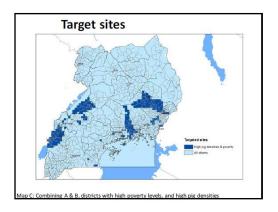
- Based on 2 basic criteria:
 - Pig population density
 - Poverty levels
- Targets 3 types of pig value chains:
 - ➤ Rural urban
 - ➤ Peri-urban urban
 - ➤ Rural rural
 - > Largely determined by market accessibility.

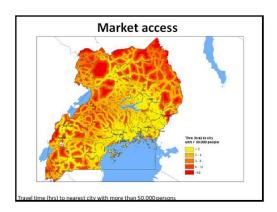












Potential districts for selection			
District	Region		
Kayunga	Central		
Mukono	Central		
Masaka	Central		
Wakiso	Central		
Rakai	Central		
Bukedea	Eastern		
Kumi	Eastern		
Soroti	Eastern		
Tororo	Eastern		
Kamuli	Eastern		

District	Region	
Kasese	Western	
Hoima	Western	
Kibaale	Western	
Kabarole	Western	
Gulu	Northern	
Lira/Pader	Northern	

	Potential partnership	Disease burden in pigs	Presence/ access of input and service providers	Geographical access all year round	Total votes	RANK
Kumi	2	2	2	6	12	7
Tororo	4	2	1	2	9	9
Lira	7	10	8	7	32	6
Mayuge	2	2	1	2	7	10
Gulu	10	10	10	8	38	5
Soroti	3	2	2	3	10	8
Bukedea						
Wakiso	15	14	14	13	56	2
Mukono	15	9	14	9	47	3
Kayunga	0	4	1	1	6	11
Masaka	18	21	16	20	75	1
Kamuli	15	7	10	9	41	4

Examples of other "soft criteria" for selection-not covered by spatial analysis District Region Comment Potential Masaka Central Highest pig density in partnerships during RRA. Uganda (>50 • Others? heads/km²) Kamuli Eastern Pig density (10-20 heads/km²) Northern - ASF project - High pork Gulu consumption - Poverty Lira or Northern - Source of

pork for Gulu

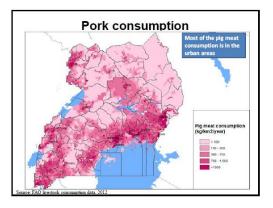
Activity

- Define the "soft criteria" for site selection.
- Propose list of eligible sites in the Northern and Western regions based on agreed criteria (soft criteria and spatial analysis).

Next steps

Pader

- Site scoping visits by end of June 2014.
- Adaptation and implementation of toolkit for Rapid Value Chain Assessment (VCA) ready by end June 2014.
- Conclusions on project sites mid July
- Baseline and diagnostic surveys at selected project sites: Aug – Sept 2014.



Annex 4 Activity planning for 2014 with partners

Activity/Milestones						
·	Deliverables	Who does it?	With which partner	Linked to which activity	Where (site)	When (month/year
Dejective 1: Develop and test best-bet options for building the pig value chain Dutput 1.2 Integrated strategy for improved pig health through better biosecurity						
2.1 Participatory testing and validation of biosecurity measures and testing of rapid diagnostic tests in the framework of community surveillance systems.	Develop SOPs for ASF biosecurity at different levels of the value chain (farmers/traders/butchers/consumers)	ILRI (Michel), NADDEC (Joseph), COVAB (Zachary), DVO (Tony), NARO (Michael), DVO Kibaale (Moses), MAAIF	Farmers, extensionists, traders, feed processors, butchers, local government stakeholders	1.2.1	Kampala (agreed location)	June - Aug - Design; Sept - Oct: Validation and refinement)
	Testing of SOPs for biosecurity (develop indicators for monitoring, adoption, KAP, etc)	ILRI, DVOs (5 districts), MAAIF (Noelina), COVAB (Zachary, VSF-Michael)	Farmers, Traders, butchers, NGOs) NAADS, Extension	1.2.1	All 5 districts	Nov 2014 - Feb 2015
	Diagnostic testing (Cystercercosis, ASF, etc)	ILRI, VSF (Michael), COVAB, NADDEC	Farmers, MUK, DVOs	1.2.1	All 5 districts	Nov 2014 - Feb 2016
Output 1.3 Pig diets formulated using locally available feed resources and technologies that address gender constraints						
	Assess available feed resources, seasonality, quality of feed flows, prices, storager of feed, etc using the FEAST tool (Feed sampling and feed analysis)	Makerere University, Kyambogo university, DPO, DVO	ILRI (Ben)	1.3.1	New sites	June - Aug 2014
	Formulate diets based on available materials (commercial and forage)	Makerere University, ILRI	Makerere University, Kyambogo university, DPO, DVO	1.3.2	Desk study	Aug - Sept 2014
1.3.1 Participatory testing of pig feeding practices including balanced diets, water and labor saving technologies	3) Farmer feedback on formulated diest/cost benefit analyses	Makerere University, ILRI	Makerere University, Kyambogo university, DPO, DVO/VEDCO	1.3.3	All sites	Oct-14
	4) Testing formulated diets with farmers (actio research)	Makerere University, ILRI	Makerere University, Kyambogo university, DPO, DVO/VEDCO	1.3.4	All sites	Nov 2014 - Feb 2015
	5) Identify strategies to improve water (ensure pigs have access to water)	New prartners with comparative advantage on water issues	VEDCO/water partner	1.3.5	All sites	
Output 1.4: Improved breeding management practices associated with the selection and use of village boars						
	Mapping of the village boar	DVO's &ILRI	NGOs,NAGRIC,COVAB,NALI RI	1.4	all sites	June/July2014
1.4.1 Strategies for village boar selection	Training manual, incorporating best practices for village boar selection and use, in widespread use	DVO's &ILRI	NGOs,NAGRIC,COVAB,NALI RI	1.4		Dec-14
	Cost:benefit anlaysis of artificial insemination in small- holder pig systems, for both local fresh and frozen imported semen	ILRI,NAGRIC,NALRI,NGO's and private sector	ILRI,NAGRIC,NALRI,NGO's and private sector	1.4		Jun-15

Output 1.5 Generation of evidence on the performance and economic feasibility of IMO technology to minimize negative environmental efficassociated with smallholder pig production.	ects					
	Generation of data to confirm the benefits of IMO	ILRI	KCCA, IMO farmers, VEDCO	1.5.1, 1.5.2	Old sites	Aug - Dec 2014
	Validate data from previous deliverable	ILRI/MSc students	Farmers, local govet, KCCA, UNDP?	1.5.1	Old sies	Nov 2014 - March 2015
.5.1.Participatory testing and validation of IMO technology, including assessment of feed efficiency of pigs under the technology.	Capacity building of farmers, extesnion services	NARO research, KCCA, VEDCO, World Vision	Farmers, Agro-farm Ltd. NGOs	1.5.2	All sites	Dec 2014 - April 2015
	Training models/publication of manuals	ILRI/MSc students	Farmers, Local government, KCCA	1.5.1	All	From Jan 2015
	Waste handling modules	ILRI	Private sector/university	1.5.2	All	From Jan 2015
	Scaling out	ILRI, DVOs	NGOs, private sector	1.5.1	All	
Output 1.6 A gendered-assessment of performance of the improved pig production best bet options that incorporate the best-bet options for animal health, feeding, breeding and waste management.						
Output 1.7 Capacity development of national and local value chain actors for effective operationalization and larger scale pilots of the productio best bets	n					
	Develop 8 training modules	ILRI		Training - ,Business strategy development-chain uganda	old and new sites	Aug-14
L.7.1 Capacity building of extension staff and service providers for training smallholder farmers on improved pig production systems.	Field testing of the modules (review of tested modules and incorporate new findings consistent with areas of operation); Stakeholder validation plus development of delivery strategy	ILRI/partners and stakeholders	PPM,BRAC,DVO's office,NAADS,VEDCO,MUK	Training - service and input		
	Delivery of training. Identification of service providers (Capacity assessment framework)	ILRI/partners	(VEDCO,/Kyambogo University/Gulu University,MAAIF,VEDCO,U NADA,BRAC,PPM	Supply of quality inpus and servises	all sites listed but not limited	Oct onwards
	Study visits to developed countries	Trainers(vietnam)	Enterprise uganda			
1.7.2 Participatory training of smallholder farmer groups on best management practices in pig production using the experiences developed under Outputs 1.1 to 1.7 through developing stronger local service providers.	s					
1.7.3 Capacity building of input and service providers to supply quality inputs and services.						
Objective 2 Develop, test and evaluate best-bet options on sustainable organisational marketing mechanisms and waste management practices						
Output 2.1 Strategies for establishing sustainable pig business hubs for input and service delivery						
2.1.1 Stakeholder assessment						
2.1.2 Design and piloting of business hub models (A hub is a one-stop centre where farmers can access services which can be either owned by the business group/cooperatives or outsourced by service providers). The hub enables farmers have access to services that are constraining. E.g. limited access by smallholder farmers to quality extension services, farmers do not get the right price for their pigs since they have low bargaining power, high transportation costs, poor access to quality feeds in the right quantities	, Identification of the location of the hubs(agree on criteria, learning from existing hubs, etc)	ILRI,DVO's	Existing groups,NAADS,MAAIF,Distri ct commercial officers, local governments,SNV.	ALL	old districts	Jun-14
	Organise a multistakeholder's platform at subcounty level to identify hub services to focus on. Identify the needs of various actors	ILRI,DVO'S	stakeholders,those working at the subcounty level		old districts	Jul-14
	Provide technical assistance based on needs using B2B	depending on needs			old districts	
	linkages(MOU),capacity building	depending of feeds				

Output 2.2 Capacity strengthening of business groups						
2.2.1 Capacity building of women, farmer and trader groups and business hubs for effective management and business operations	2 business groups per district formed (wit gender lens. Mapping and selection, needs assesment. Develop startegy to boost production and marketing. Transformation of groys into viable business units. Strengthening input supply. Fianacial products for target groups developed.	BRAC,ILRI	CHAIN, Farm gain, Kyambogo University, SNV, BRAC	group formation&strengthening market linkages. Needs assesment/Stategydevelopment. Develop a framework.Business development, Linkage to inputs, credit	Masaka, Kamuli, Mukono	Jun-sept 2014/jun 2014- april2015
2.2.2 Participatory training of slaughter slabs, abattoirs and butchers on appropriate slaughtering and pork handling	develop modules for pork handlers, hygiene, safety and waste disposal along the pig value chain(validation or testing)	ILRI,Wambizzi, DVO's, public health inspectors, ministry of health,UNBS	farmers, butchers/slaughter men.transporters,consumer s,policy makers(MAAIF,MOH)	2.2.2	Project sites	June - Sept 2014
	training of value chain actors and pork handling and pork safety(indicators of assesment of the training(provisions like pork safetyweek)	ILRI,MAAIF,DVO'S,MOH(DHO),UNBS	farmers, butchers/slaughter men.transporters,consumer s,policy makers(UNBS)	2.2.2	Project sites	Nov 2014 - Feb 2015
Output 2.3 Assessments of the pig business hubs approach and enhanced capacities on pork handling						
Output 2.4 Evidence generated on environmental impacts associated with waste management in the slaughtering and processing nodes in the value chain.						
2.4.1 Mapping of organisations involved in sustainable waste management and drawing on lessons learnt from other countries.						
2.4.2 Exploring and promoting appropriate ways of waste handling in slaughtering and processing nodes as means to sustainably reduce negative environmental effects.	Review of available options for waste management and recommendation of guidelines	consutancy on waste management/ILRI, Wambizi	Private sector (feed manufacturing), Uganda Biogas program,NGOs	2.4.2	Kampala, Wambizi, desk review	June - Dec 2014
Objective 3: Strategy to increase utilisation of edible pig parts and and increase consumer awareness about benefits of consumption of animal source foods.						
Output 3.1 Strategy to increase utilisation of edible pig parts and to provide nutritional information to farmers and consumers.						
3.1.1 Nutritional and economic assessments of edible pig parts based on practices elsewhere	Assess nutritional va;ues of different edible parts (pigs) especially underutilised.	MUK/IL Ri	Private sector, processors, COVAB, DVOs	Market survey	All districts	Jan - Marc 2015
3.1.2 Design and piloting of training for butchers and slaughterhouse on appropriate slaughtering/dressing of edible pig parts						
Output 3.2 A gendered- assessment of the role of pork and other animal source foods in human diets and associated preferences.						
3.2.1 Gender-sensitive consumer surveys targeting different segments of the population to assess the availability, actual access to and control over	Develop survey tools (gendered) sections targeting different household member, nutrition, dietary socio-economic, etc. Select survey areas, sample households (point of pork sale)	ILRI, MUK, Agric Econ	Local government, local partners (SNV, VEDCO)	Baseline surveys in new districts (needs assessment for demand for new pork products.	All districts	June - Sept 2014
adequate food (including animal source foods) by household members.	Implement the survey (trainig of surveyors, data collection, analysis and validation.	ILRI, MUK, UBOS				
	Sharing/dissemination (wokshops, reports and publications)	ILRI				

Objective 4: Inform policy to recognize and appropriately promote the role of pro-poor pig value chains in Uganda						
Output 4.1 Develop & disseminate lessons for sustainable pig value chain development through evidence-based research, M&E						
A.1.1 Continued development of stakeholder alliances, in the form of regional and national innovation platforms F	Review progress on PMSP building, stakeolder mapping (regional/national	SNV,steering committee	organisations on the steering committee and task force memebrs	none	Kampala	Jun-14
	Regional and national stakeholder meetings (validation oand prioritisation of issues)	SNV		Those relevant to issues prioritised	Kampala (national), districts (5 regional) - 2x3 regional meetings, 2x1 national meitngs	to be decided by SNV
	Formation of task forces along prioritised issues	SNV				Aug
	Facilitation of task forces to make sure they are in operation	SNV				
	Develop communication channels	SNV				
	National stakeholder meetings	SNV				