Workshop Report - Value Chain Assessment & Best Bet Interventions Identification

Smallholder Pig Value Chains Development in Uganda (SPVCD) Project

Review of the In-depth Value Chain Assessment and Preliminary Definition of Best-bet Interventions

Facilitation and Synthesis Report by
Washington O. Ochola

April 9th – 10th 2013
Executive Summary

The International Livestock Research Institute (ILRI), Nairobi, Kenya is coordinating and IFAD/EU funded project – Smallholder Pig Value Chain Development (SPVCD) Project in Uganda titled “Catalysing the emerging smallholder pig value chains in Uganda to increase rural incomes and assets”. The project aims to improve livelihoods, incomes and assets of smallholder pig producers, particularly women, in a sustainable manner, through increased productivity, reduced risk, and improved market access in pig value chains. A workshop was held on 9th and 10th April 2013 in Kampala to review results of in-depth small holder pig value chain assessment and to identify potential best interventions to address the constraints and opportunities identified in the value chain assessment. A series of PowerPoint presentations were used to convey results of the VCA exercise already done among smallholder pig producers in Uganda. The results covered pig production systems and seasonal calendar; livelihood analysis, gender roles and decision making, and social capital assessment through group membership; animal health and management practices; food safety, nutrition and zoonoses; gender integration; feeding and breeding; and value chain mapping. This was to help create good understanding by participants of the in-depth VCA exercise and facilitate them to identify best-bet interventions to address challenges and opportunities in the pig value chain. The workshop generated potential BBIs under the three issues of animal health and breeding; feeds and nutrition and value chains. The workshop used participatory methods to evaluate its progress and success during the sessions and a final online evaluation was conducted (see this for link to the Survey Monkey® driven platform (https://www.research.net/s/Uganda_SPVCD_VCAWorkshopEvaluation).
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### Abbreviations and Acronyms

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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ASF</td>
<td>African Swine Fever</td>
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<tr>
<td>CGIAR</td>
<td>Consultative Group on International Agricultural Research</td>
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<tr>
<td>CIAT</td>
<td>International Centre for Tropical Agriculture</td>
</tr>
<tr>
<td>CRP</td>
<td>CGIAR Research Programs</td>
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<td>GOU</td>
<td>Government of Uganda</td>
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<tr>
<td>ILRI</td>
<td>International Livestock Research Institute</td>
</tr>
<tr>
<td>LG</td>
<td>Local Government</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>MAAIF</td>
<td>Ministry of Agriculture Animal Industry and Fisheries</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>NAADS</td>
<td>National Agricultural Advisory Services</td>
</tr>
<tr>
<td>NaCCRI</td>
<td>National Crops Resources Research Institute</td>
</tr>
<tr>
<td>NaLiRRI</td>
<td>National Livestock Resources Research Institute</td>
</tr>
<tr>
<td>NARO</td>
<td>National Agricultural Research Organization</td>
</tr>
<tr>
<td>OM</td>
<td>Outcome Mapping</td>
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<tr>
<td>R4D</td>
<td>Research for Development</td>
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<tr>
<td>SFFF</td>
<td>Safe Food, Fair Food</td>
</tr>
<tr>
<td>SPVCD</td>
<td>Smallholder Pig Value Chain Development Project</td>
</tr>
<tr>
<td>VEDCO/CSRL</td>
<td>Volunteer Efforts for Development Concerns/Centre for Sustainable Rural Livelihoods</td>
</tr>
<tr>
<td>WCS</td>
<td>Wambizi Cooperative Society</td>
</tr>
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Acknowledgement

Many individuals and organizations contributed to the success of the workshop. The workshop organizers (ILRI-Uganda) owe special regard to the following for their individual and collective contribution:

- Uganda government through its agencies for agreeing to work with the research teams in addressing value chain development for pig sector in the country
- The project team at ILRI-Uganda lead by Danilo Pezo and Emily Ouma for the ground work, initial technical work to prepare the material and plans for the workshop
- The participants of the in-depth Value Chain Assessments (VCA) for conducting credible studies that formed the basis of the workshop
- ILRI technical team of experts from Nairobi and other CGIAR CRPs who directly or indirectly supported the workshop
- Participants from government agencies, local governments, research institutions, universities, private sector and civil society for taking time to plan with other partners in the workshop.
- The hotel management (African Hotel – Kampala) for availing their facility for use during the two-day workshop.
Introduction

About the Project

The International Livestock Research Institute (ILRI), Nairobi, Kenya is coordinating and IFAD/EU funded project – Smallholder Pig Value Chain Development (SPVCD) Project in Uganda titled “Catalysing the emerging smallholder pig value chains in Uganda to increase rural incomes and assets”. The project officially runs from 1st January 2011 to 31st December 2013. The project aims to improve livelihoods, incomes and assets of smallholder pig producers, particularly women, in a sustainable manner, through increased productivity, reduced risk, and improved market access in pig value chains. The specific objectives are:

1. To identify market opportunities for pork in Uganda, and the multiple factors preventing smallholder pig producers from exploiting those opportunities, with focus on constraints caused by animal disease threat, feed resources, and performance of markets and services.
2. To develop and pilot test a set of integrated packages for smallholder pig production and market access for specific production systems, resource profiles and market settings in Uganda.
3. To document, communicate and promote appropriate evidence-based models for sustainable, pro-poor pig value chains.

The project effectively started in Uganda in October 2012. It is part of the Livestock and Fish, by and for the Poor CGIAR Program (CRP 3.7) and works closely with the Safe Food – Fair Food Project, funded by GIZ (part of CRP 4.3). It is led by the International Livestock Research Institute (ILRI), with the International Center for Tropical Agriculture (CIAT) as a CGIAR partner. The partners at national level: NaLIRRI, MAAIF, NAADS, the local governments of Kamuli, Masaka, and Mukono, Makerere University, NGOs such as VEDCO and VSF, and representatives of the private sector.

The project targets resource-poor smallholder pig keepers, especially women, and other marginalized groups who participate in pig value chains, especially as small scale producers, as well as the communities in which they live. Important beneficiaries also include the public officials responsible for animal disease surveillance and control, and for livestock market development and regulation. In its design, the project hopes to transform subsistence-level pig-keeping into a viable, profitable business model- increasing incomes and thereby reducing poverty and enhancing food security, while preserving community natural resource systems. Other value chain actors, including small-scale traders, input and service providers are also targeted.

About the Workshop

Background to the Workshop

In October 2012, an outcome mapping and site selection workshop was convened to planned for implementation of the project. At that workshop, strategies for causing behavioural changes among partners in the project were defined and sites for piloting selected. The project partners have been working on many activities including conducting in-depth value chain assessments (VCA) in the three pilot districts (Kamulu, Masaka and Mukono).

The workshop was attended by 35 partners representing ILRI CRPs and projects, Uganda government representatives, local government representatives, participants in the VCA exercise,
pig producer association representatives and representatives of partner NGOs. The workshop was held on 9th and 10th April 2013 in Kampala.

**Objectives of the Workshop**

- To review the results of the In depth Value Chain Assessment (farmers and key informants) in the target districts (Kamuli, Masaka and Mukono).
- To identify potential best interventions to address the constraints and opportunities identified in the value chain assessment.

**Workshop Approach and Roadmap**

The facilitator, Washington Ochola, presented the overall workshop approach and roadmap which was designed to ensure participation, evidence base for the selection of Best-Bet Interventions (BBI) after receiving and understanding the in-depth VCA results. The approach was participatory emphasizing principles of adult learning and multi-stakeholder contribution to augment scientific findings from the project. Emphasis was made on the project being a research for development (R4D) undertaking. The workshop execution involved presentations, plenary discussion, group work and exercises design to ensure structure realization of the workshop outputs. The process of workshop included activities to:

- Present the VCA major findings by SPVCD and SF-FF researchers
- Present successes and failures in promoting/adopting technology interventions in smallholder pig VCs by three Ugandan Consultants
- Group discussions to design strategies/criteria for assessing best-bet interventions and identification of potential best-bets for value chains, animal health & food safety and feeding and breeding

The roadmap adopted is illustrated in Figure 1.

**Figure 1:** Simplified roadmap of the workshop procedure
Synthesis of Proceedings

Day 1
Setting the Scene
The workshop was launched after welcome remarks from Danilo Pezo who invited Dr Loyce Okedi, Director General of The National Livestock Resources Research Institute (NaLIRRi). In her brief remarks, she reminded the participants of the commitments made by partners during the OM and site selection workshop. She reiterated the value of pig sector to the country and how international research institutes like ILRI, national research systems and other actors in the value chain can mount co-investment in research and development to improve smallholder producer benefits in Uganda. She noted the role the sector is playing with a huge potential for job creation and income generation for all value chain actors. She acknowledged the good work already done in the project with respect to VCA but added more comprehensive work still remains on analysis of post-production elements of the value chain especially marketing. She reaffirmed NaLIRRi’s commitment to the project and promised to engage other institutions in the country as pig production gains priority status in the national agenda.

To further create a common understanding of the project design and on-going implementation status, Danilo Pezo of ILRI-Uganda briefed participants on the background of the project and workshop objectives. He reminded participants of the outputs from the Outcome Mapping working including the collective vision and mission, namely:

VISION: “Empowered and efficient smallholder pig producers with increased productivity, having equitable access to markets, information, knowledge, improved technologies, and inputs for sustainable and resilient livelihoods”
MISSION:

- Organize interest groups of farmers and other VC actors.
- Improve access to information and markets.
- Create linkages among stakeholders for service provision and sustainability.
- Increase knowledge of smallholder pig farmers on feeding, breeding, animal health and disease control, and food safety.

He then linked these to the present workshop and outlined the workshop objectives. The methodology adopted in the VCA process was presented by Danilo as:

- Selection of target sites (districts/sub-counties/villages)
- Development and testing of the VCA tool-kit
- Selection and training of facilitators
- The VCA tool-kit components
- The application of the VCA tool-kit
  - Contacting partners at district level
  - Selection of farmers
  - Launching workshops
  - FGDs (Farmers and key-informants)
- Data input and analysis

He made a summary of the key steps of the VCA noting the important actors and stages that yielded the results to be presented in the workshop.

- **Step 1:** Geographical targeting using GIS characterization (pig density, poverty level & market access).
- **Step 2:** Stakeholder consultation of step 1 and definition of “soft” criteria.
- **Step 3:** Participatory selection of districts by stakeholders (Outcome Mapping & Site Selection Workshop, Oct. 2012)
- **Step 4:** Minimum checklist to gather data for more specific site selection (counties and sub-counties).
- **Step 5:** Analysis of steps 1-4 and final site selection.

The PowerPoint presentation on the entire process followed in the VCA is reproduced in Annex D1. All in all a total of 35 villages were selected representing the three value chain domains: 18 Rural – Rural, 7 Rural – Urban and 10 Urban – Urban.

**Reports from Value Chain Assessment**

In order to provide basis for workshop deliberations, a series of presentations were made by field teams on preliminary findings of VCA. These were followed by plenary discussions to identify opportunities and challenges along the value chain and possible areas of redress by the emerging best-bet interventions. Three specialized presentations were made by consultants covering successes and failures of past technology and institutional interventions in the pig value chain in Uganda. The presentations covered Pig production systems; livelihood analysis, gender roles and decision making, and social capital assessment through group membership; animal health and management practices; food safety, nutrition and zoonosis; feeding and breeding; and value chain mapping. A brief synthesis of the sessions is covered in the sub-sections below.
Pig Production Systems and Seasonal Calendar
The presentation by Emily Ouma covered a description of livestock production systems in Uganda, land tenure systems; objectives of pig keeping; pig production types; production system types and breeds; and production scale definitions. The presentation (Annex D2) set the stage for other VCA results by giving perspectives of pig production in Uganda noting that:

- Pig production occurs within the overall mixed crop and livestock systems.
- Main objective of pig keeping – income
  - School fees payment
  - Meet other expenditures and investments on farm
- Most of the pig keepers are smallholders;
  - Breeders: 60-65%
  - Growers: 50-65%
- Smallholder definition
  - Breeders: 1-2 sows (including replacement females)
  - Growers: 2-3 grown pigs
- Production system types
  - Varies by value chain domain.
- Institutions promoting breed change.

Livelihood analysis, gender roles and decision making, and social capital assessment through group membership
The presentation (Annex D3) focused on results of descriptive analysis and was presented by Emily Ouma. The session covered:

- Sources of livelihood.
- Crops grown and control by gender.
- Pattern of agricultural and pig income.
- Pig income control and decision-making.
- Decision-making: pig enterprise activities.
- Social capital.
- Institutions on livestock (including pigs and agricultural VC)

The presentation and discussions emphasized the important role of pigs as a source of livelihood – especially for women in Uganda under all three domains (R-R, RU, U-U). It also indicated that crops contribute significantly to livelihoods as do other livestock (cattle and poultry). There are significant gender differences in pig enterprise decision-making and labor burden while strong social capital is not developed in some locations along the pig value chain. The report also shows that there exist limited pig farmer groups compared to crops although a strong willingness to participate in such initiatives is evident. The study also presented evidence of existence of institutions working on pig value chains indicating potential for collaboration to improve the VC.

Animal Health and Management Practices
The results of a participatory rapid assessment of animal health and management practices was presented by Michel Dione. The presentation covered:
The premise of the study was that animal diseases are known to be one of the major limiting factors to pig production in Uganda and that persistence and spread of disease in the farm are strongly associated with their management practices. The overall objective of the study was to identify constraints and opportunities for intervention in the pig value chain. In terms of presenting a summary of possible interventions, the presentation noted what is already being done and what could be done to improve the value chain.

### What is already being done?

<table>
<thead>
<tr>
<th>What is already being done?</th>
<th>What more can be done?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own treatment with commercial drugs or traditional drugs</td>
<td>Get qualified vets and increase their accessibility</td>
</tr>
<tr>
<td>Use local material to construct houses</td>
<td>Get breeds that are more resistant to diseases</td>
</tr>
<tr>
<td>Stock few pigs and make good use of the limited space</td>
<td>Access to affordable drugs</td>
</tr>
<tr>
<td>Inform authorities about quality of drugs</td>
<td>Access to good quality feeds</td>
</tr>
<tr>
<td>Deal with qualified and recognized health workers</td>
<td>Training in management practices and records keeping</td>
</tr>
<tr>
<td>Sell other assets (crops, other animal) to buy drugs and construct houses</td>
<td>Training on fed formulation and promote local feeds</td>
</tr>
<tr>
<td>Use local available feeds (forage, peelings) or allow them to scavenge</td>
<td>Access to funds</td>
</tr>
<tr>
<td>Stock maize bran for use in time of scarcity</td>
<td>Exchange farmer’s experience and knowledge</td>
</tr>
<tr>
<td>Get loan and invest in the farm</td>
<td></td>
</tr>
<tr>
<td>Visit more advanced farmers and seek for advice</td>
<td></td>
</tr>
</tbody>
</table>

### Food Safety, Nutrition and Zoonosis

Kristina Roesel presented preliminary findings from the sister project Safe Food Fair Food (SFFF) which focused on risk-based approaches to improving food safety and market access in informal markets in sub Saharan Africa. The presentation covered:

- Who eats pigs? Reasons for eating more or less pigs?
- Seasonality of pig consumption?
- Accessibility of pork?
- Pork quality attributes for consumers
Risk increasing practices
Risk mitigating practices
Findings from the on-going: urban consumer survey

The full presentation is included in Annex D4.

**Gender Integration**

Kathleen Earl Colverson, Program Leader, Livelihoods, Gender, Impact and Innovations, made an engaging presentation of gender integration in pig value chains. She specifically noted that “The failure to recognize the roles, differences and inequities between men and women poses a serious threat to the effectiveness of the agricultural development agenda.” Quoting from USAID, presentation was premised on the fact that, women face many gender constraints as they participate in agricultural value chains:

- Less access to land, less money to buy land, using more borrowed or illegal land
- Fewer head of livestock than male-headed households
- Higher number of orphans living in female-headed households than male headed
- Fewer agricultural inputs, such as improved seed and fertilizer, used by female-headed households
- Less access to extension services and improved technologies

Before breaking into four groups, the session noted that bridging the gender gap could:

- Increase yields on farms by 20 – 30 percent which…
- Raise total agricultural output in developing countries 2.5 – 4 percent which…
- Reduce the number of hungry people in the world by 12 – 17 percent

**Group Work**

- Create a pig value chain using the cards provided.
- Add additional cards if necessary.
- Where along the chain are there opportunities and constraints for women farmers to be involved?
Benchmarking I: Successes and Failures of Past Interventions

A presentation by Dr. Zachary Nsadha on “Successes and Failures in Uganda Technology Interventions on Animal Health and Zoonoses promoted in Uganda” provided a set of lessons from past and current initiatives addressing disease management and risks. The presentation proposed a design for pig enclosure for controlling ASF (Figure 2).

Figure 2: Proposed pig enclosure for control of ASF
Day 2

More Reports from Value Chain Assessment

Feeding and Breeding

The two-in-one presentation was made by Natalie Carter and Danilo Pezo featuring feeding regimes including production systems, water sources, available feeds, forages, constraints and solutions to acquisition of adequate feeds for pigs in Uganda. The VCA revealed existence of extensive, semi-extensive and intensive systems of feeding.

The breeding component covered the current trends in breed-types, sources of pigs, mating management and constraints to breeding.
The presentation made the following summaries:

- The use of crossbred and exotic animals has increased in the last 10 years, but locals are still important in the rural settings.
- Exotic breeds are the most preferred in U-U. whereas in the R-U and R-R exotic and crossbreds are equally preferred.
- The attributes most valued by farmers are: number of teats, body length, floppy ears and fast growth. All three have higher positive scores in the exotic and crossbred animals.
- The main limiting factors for not using the preferred breeds (exotic and crossbreds) are: costs of animals, susceptibility to diseases and the need for feeds to match higher nutrient demands as well as investment to provide appropriate housing facilities.

**Value Chain Mapping**

The results from the VCA value chain mapping was presented by Peter Lule and Emily Ouma. It covered the key marketing outlets for pigs and piglets, prevailing producer prices (for both grown pigs and piglets), output price variation patterns, channels for inputs and services, value chain map and significant constraints. The full PowerPoint presentation is given in Annex D5.

It concluded that:

- The common output channels are the local butcheries.
- Where women are organized in groups they have access to inputs and price-lucrative market opportunities.
- Limited access to inputs but women are more constrained.
- Piglet prices are higher in the urban-urban value chain.
- Maize mills are the most common outlets for purchasing feeds (maize bran).
**Benchmarking II: Successes and Failures of Past Interventions**

On the second day, two main presentations were given to offer opportunity to compare interventions on on-going and past technologies/practices in order to guide the process of identification of best-bet technologies. The presentations were on:

- Successes and Failures with Technology Interventions on Pig Feeding promoted in Uganda by Dr David Mutetikka
- Successes and failures in Uganda with Technology Interventions on Value Chains promoted in Uganda by Dr Alex Tatwangire

The objective of both presentations was to Feasible and relevant best bet interventions that can be tested in the on-going smallholder pig value project.

**Consideration (Criteria) for selecting Best Bet Innovations**

The participants generated key considerations for identification of Best-Bet Innovations (BBI). The exercise was carried out in four groups answering the question:

> “Based on the presentations made, discussion and exercises this morning, define the key considerations/criteria for the selection and monitoring of best-bet interventions for addressing challenges and opportunities in the smallholder pig value chains in Uganda”

In summary the key considerations generated were categorized into major themes including:

- Socio cultural
- Economic
- Environmental
- Technology attributes
- Institutions
- Other criteria (contribution to project Vision and Mission)
- Time frame

**Identification of Potential Best-Bet Interventions**

**Approach to Selection of BBIs**

The selection of potential BBIs was done through extensive group work in response to the following assignment. The groups were assigned to generate the potential BBIs for Animal Health, Value Chains and Feeding and Breeding. The guiding questions were:

1. Identify broad themes around which the Best-Bet Technologies are to be identified and discussed. Consider the value chain constraints and opportunities e.g. Husbandry practices

2. For each broad theme identify best-best technologies, interventions or practices for considerations as potential solutions to challenges in the pig value chain. Use the table to structure your discussions and documentation
### Potential BBIs

The results of the group work are presented below:

**GROUP 1: Animal Health**

Broad areas:
1. Husbandry
2. Pig disease control
3. Zoonotic disease control

#### Husbandry:

- **Short-term**
  
  a. **Confinement:**
     - as it tackles several issues: risk for diseases, worm control, ectoparasites
     - Western Kenya: housing houses ticks
     - Minimize piglet crushing; feeds; increase quality;
     - Objective: to restrict movement which can also be done by improved tethering or an enclosure (discussion)
     - Tethering should not be promoted
     - 3-stage enclosure (kraal) and foot bath at entrance

  b. **Other biosecurity measures:**
     - foot bath, acaricides in middle circle/ keep free from weeds, separate units for sick animals or external boars
     - Boil the swill, boil water etc.

  c. **Education packages**
     - Educating farmers on the basic diseases and its spread; sow calendar; selenium/ iron/ PICA; castration, teeth trimming; minimum space requirements (e.g. heat stress through low roofs); health and management records; training on common zoonotic diseases

  d. **Piglet management**
     - Access to clean water

  e. **Feed management:**
     - Feed storage: mould, rodents,

  f. **Indigenous Micro Organism Technology (IMO)**
Disease control (production constraints)

ASF:
- testing rapid detection of asymptomatic ASF pigs through pen-side test
  \(\Rightarrow\) short-term

- Biosecurity/ community policy (traders, butchers, farmers in one boat – if there are no pigs, no business): visitors; children; livestock movement in the villages (pigs, middlemen)
  \(\Rightarrow\) Medium-term

- Field lab for quick differential diagnosis (48-hours): sudden death and quick confirmatory tests for (African) swine fever, trypanosomes, erysipelothrix
  \(\Rightarrow\) Long-term

- Early warning system: CAHNET (Community Animal Health Network) to quickly distribute messages \(\Rightarrow\) consider the response
  \(\Rightarrow\) Short-term

- Central slaughter place/ pig market day/ bulking center (disease surveillance): test at village level
  \(\Rightarrow\) Long-term

Endo-/ ectoparasites:
- Test Indigenous traditional knowledge (i.e. paw paw seeds) as natural dewormers or homestead wallow against ectoparasites
  \(\Rightarrow\) Medium-term

- Promote the use of ivermectine for its broad-spectrum traits
  \(\Rightarrow\) Short-time

GROUP 2: Feeds and Breeds

1. Feed hazards: Leftovers (e.g., dangerous objects, polythene bags, bottles, bones)
   ♦ Develop training guidelines for different VC actors on how to best use leftovers

2. Feed hazards: Potential contamination (possible source of ASF, Salmonella, Botulism)
   ♦ Monitoring the importance of contaminants

3. Seasonality: Scarcity of forages in dry season. Availability of crop residues, banana peels, sweet potato peels, yam leaves; Abundance of maize bran (only short time)
   ♦ Developing feed-budgets for smallholder pig farmers tailored to agro-ecological conditions

4. Seasonality: Improve simple storage for bulk conservation to avoid spoilage; scarcity of water in dry season.
   ♦ Promotion of rain water harvesting technology

5. Seasonality: More feed will go to waste in wet season; surplus feed in wet season:
   ♦ Possible conservation for dry season

6. Feed quality:
Using cassava peels, sweet potato vines, sweet potato rejected tubers, banana peels
More fully exploit locally available feed resources
Strategic supplementation
Supplementation by using of leguminous leaf meals
Explore possibility of developing high-nutrient balancers

7. Collective action:
- Organize farmers into producer groups (for many other purposes)
- Collective action for influencing policy change

8. Knowledge: Inadequate knowledge for feed formulation
- Developing simple feed formulas for home mixing by feed groups

9. Knowledge: Lack of knowledge on production of food/feed crops, forages,
- Weather climate, planting time, pests & diseases
- Planning for feed in a farm for a 6-mo period
- Assessing anti-nutritional factors in used rations
- Screen existing and new forages for use in pig diets, considering different pig breeds
- Introduce and test new forages in farming system
- Assessing water needs of pigs according to production stage and breed
- Train farmers on water needs

GROUP 3: Value Chains

<table>
<thead>
<tr>
<th>Constraint/Opportunity</th>
<th>Intervention/Practice/Technology</th>
<th>Description</th>
<th>Comment of suitability (use the criteria developed on day 1)</th>
<th>Short/Medium/Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of linkage among value chain actors (including financial services).</td>
<td>• Facilitate the emergence of organizational models to enhance value chain coordination ○ Variants of collective action ○ Check-off system ○ Contractual arrangement • Strengthening existing farmer/women groups to act as coordination units • Facilitate linkages between organizational models and financing institutions</td>
<td>Establishment of collective action/coordination units along the value chain that are context specific</td>
<td>• Socio-cultural • Sustainability - commonality of interest; meet priority needs of the local areas • Economic viability</td>
<td>Short/medium</td>
</tr>
<tr>
<td>Lack of market information, value addition</td>
<td>Capacity building for farmers and organizational model actors on:</td>
<td>Developing the capacity of various players along the value</td>
<td>Contributes to project vision of an efficient and self-</td>
<td>Short/medium</td>
</tr>
</tbody>
</table>
| Strategies, business skills, input and service providers. | - Governance  
  - Business skills (e.g., to enhance women participation in VC)  
  - Husbandry practices, record keeping  
  - Quality assurance  
  - Standardization (weight estimation) etc.  
  - Value addition for pork by-products  
  - Credit access | Chain in order to improve the performance of the value chain, e.g., equipping farmers with business skill to be able to operate pig enterprises profitably; improving governance capacity of groups | Sustaining value chain | Long term |
|---|---|---|---|---|
| Low priority of smallholder pig production in Uganda’s national agenda hence lack of targeted policy for the sub-sector. | Facilitate emergence of policy advocacy forum to influence policies favorable for smallholder pig value chain at district and national levels in Uganda. | Influencing government to play a more proactive role in promoting performance of pig industry, e.g., stimulate debate of handling and quality assurance, regulation of feed quality etc. | • Improvement in institutional performance  
  • Minimize environmental externalities | Long term |

Potential partners: VEDCO – has experience with PMCA and capacity building; FARMGAIN (market linkages and market information), pig traders association, feed millers associations, farmers forum for producers, UNADA (Uganda National Agro-Input Dealers Association), Wambizzi cooperative society, research institutions (local universities, NALIRRI, ILRI, CIAT), local authorities.

**Concluding Remarks**

The workshop was closed with remarks from Danilo Pezo, who thanked the participants for their dedication to the course of the project before awarding certificates of participation. He reminded partners of their roles and gave a preview of the up-coming activities including the need to synthesize the potential BBIs, streamlining the project communication and knowledge management components.
Workshop Evaluation

Evaluation Methods
The workshop employed diverse evaluation methods during sessions, during group work, at the end of the day and at the end of the workshop. The participatory evaluations methods constantly gauged extent of achievement of session and workshop objectives with respect to participation, time management, adherence to workshop rules and value of the reports to promoting clearer understanding of the VC opportunities and challenges as well as use in identifying BBIs. The feedback was used to address areas that needed improvement in subsequent sessions and day. On day 1, for instance, it was noted that the presentations were lengthy and limited time was given for in-depth discussions. This was rectified in day 2 with more time allocated for discussions and teasing of lessons for BBI identification.

Summative (Final) Evaluation
A final online evaluation was conducted with the link to the Survey Monkey® driven platform (https://www.research.net/s/Uganda_SPVCD_VCAWorkshopEvaluation) communicated to the participants after the workshop. The full evaluation questionnaire is presented in Annex C.

A total of 16 responses were gathered at the end of the on evaluation with participants representing different partners. Of these 2 (12.5%) rated the workshop as excellent while the remaining 14 (87.5%) rated it as good. All participants who responded the evaluation questionnaire indicated that they considered the workshop objectives to be either fully or partially met.
Figure 4: Proportion of responses from different partner organizations

2. To select potential best-bet interventions that would address the opportunities and challenges of smallholder pig producers identified during the Value Chain Assessment of smallholder pig producers in Uganda

![Bar Chart]

- 9 Fully Achieved
- 11 Partially Achieved
- 0 Not Achieved at All

Figure 5: Proportion of respondents rating level of achievement of workshop objectives
Figure 6: Participants’ rating of different presentations

Figure 7: Rating of workshop adherence to rules set at the beginning of the workshop
Figure 8: Rating of general workshop performance

Key weaknesses of the workshop

- The time that was given to cover the entire content was not very sufficient.
- went over time; some speakers did not provide best bets in their presentations - rambled a bit; needed more focus on arriving at best bets as a way forward.
- 1: Time management; 2; Participation by stakeholders; 3: Logistic support from the workshop coordinator - she was laid back
- time management time allocated to group discussion was not enough did not finalize on the best bet selection due to shortage of time
- Limited time allocated for presentations and discussions
- too little time for discussing the results from the in-depth assessment
- lack of representation of MAAIF officials
- Keeping within the fixed time lines for every presentation was rather difficult.
- None
- The time frame for that kind of work was short it needed to be a 4-day workshop
- Limited time for discussions. -No representations from the farmers as a key stakeholder.
- Time, Audio, Focus
- Repetitions of some issues, discreteness of issues presented, dominance of qualitative data
**Key strengths of the workshop**

- There was plenty of participant’s participation especially in group work that helped dig out hidden best bets.
- good diversity of participants, some good presentations on value chain information and analysis, good networking
- Achieving objectives of the workshop
- Stakeholder representation
- Reasonable clear way forward
- adequate time allocation for every activity
- Multi stakeholders involved  Good presenters  good presentations
- motivated and engaged participants, very good logical flow of discussions on best-best intervention: from general (results and group discussions during workshop on 9th/10th) to very specific (April 11th)
- information from the study is so far good
- The multi stakeholder approach the brought on board various actors was very healthy.
- Participation by all  Ample time for discussion  Respect on one another's opinion
- the organizers were well prepared
- -The workshop was focused on its objectives and it achieved them. -Facilitation skills were good. -Time keeping was observed.
- Gender, Zoonoses,
- Multi-stakeholder involvement, conciseness, duration

How the potential best-bet interventions/practices/technologies identified in the workshop be further refined/packaged for integration in the project activities aimed at improving productivity in the pig value chains in the selected sites in Uganda:

- Continuous advocacy with the relevant stakeholders.
- Synthesize and finalize "best bets" from what is realistic and what can be accomplished in the remaining time, focus on the target audience and practical solutions not just research
- They should be validated with stakeholders and feedback from them in cooperated
- They should be matched to context and a quick initial assessment of cost and benefits plus implication to farmers assessed
- Need for clear protocols for the 'best bets' to be developed and peer reviewed
- Best bets should be targeting the root causes of the selected interventions, and should avoid focusing on symptoms
- Sending workshop results to relevant stakeholders and requesting for feedback
- Need to keep discussions going within the multidisciplinary teams as many of the interventions are cross-cutting (i.e. general husbandry management practices need to be urgently promoted and concern feeds/breeds/animal health/zoonoses)
- We need to have the government (MAAIF) need to be integrated for better implementation of activities
- Through consultative / feedback meetings at specific project sites (Districts) to further refine the best - bet interventions.
- By putting them to test in a small locality first
- Inviting the other stakeholders like the traders
- Through the involvement of the key stakeholders/organizations who have the capacities where ILRI does not, so that experiences are shared, tasks/roles shared and the different activities are implemented at the same time by different stakeholders/organizations so as to achieve the project goal within the project life span.
- Adopting a market driven approach

How the emerging results of value chain assessment and strategies for improving small holder pig productivity in Uganda be best communicated and monitored:
- Using the existing structures that are on the ground.
- E-mails, and smaller meetings in Uganda, presentations at the CRP 3.7 VC and APM meetings
- Workshops with stakeholders
- Briefs need to be prepared for use by them place them in open access areas
- should provide feedback at all levels of interaction should always be clear about the interventions to be accomplished to avoid false expectations
- Both physical workshops and on line communications.
- Pro-actively (i.e. newspapers, radio, local TV or emailing). Unfortunately, websites and wikis are not so frequently visited.
- Village level communications are needed for the delivery of information to the real implementers
- Through quarterly planning and review meetings both at National and District levels; as well as producing bi-monthly magazines / newsletters which can also be circulated to key stakeholders online.
- On line dissemination
- through publications and feed back to the farmers
- Through dissemination meetings both at the field level (farmers) and national level
- Through holding National campaign on pigs. -A lot of documentation is required
- Participatory monitoring would be ideal.
# ANNEXES

## ANNEX A: WORKSHOP PROGRAM

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuesday 9 April</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory Session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00</td>
<td>Registration of participants</td>
<td>R. Miwanda</td>
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<tr>
<td>8:45</td>
<td>Opening of the event (Dr. Loyce Okedi, Director NaLIRRI)</td>
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<tr>
<td>9:00</td>
<td>Introduction of Participants</td>
<td>To be defined</td>
</tr>
<tr>
<td>9:30</td>
<td>Introduction of Workshop objectives and procedures</td>
<td>D. Pezo</td>
</tr>
<tr>
<td>9:40</td>
<td>How the In-depth Value Chain Assessment was conducted</td>
<td>D. Pezo</td>
</tr>
<tr>
<td><strong>Reports of VCA Results</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:10</td>
<td>Report of VCA Results: Pig Production Systems and Seasonal Calendar</td>
<td>E.A. Ouma</td>
</tr>
<tr>
<td>10:50</td>
<td><strong>Group Photo (venue to be announced)</strong></td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td>Tea/Coffee break</td>
<td></td>
</tr>
<tr>
<td>11:20</td>
<td>Report of VCA Results: Livelihood analysis, gender roles and decision making, and social capital assessment through group membership</td>
<td>E.A. Ouma</td>
</tr>
<tr>
<td>11:50</td>
<td>Integrating Gender into Value Chains</td>
<td>K. Colverson</td>
</tr>
<tr>
<td><strong>Group Work</strong></td>
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<tr>
<td>12:40</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td>The setting for assessing best-bet interventions (working groups)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The setting for assessing best-bet interventions (working groups continue)</td>
<td>Moderators and Rapporteurs to be defined</td>
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<td><strong>Plenary Session</strong></td>
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<tr>
<td>15:30</td>
<td>Reports by working groups/Discussion</td>
<td>To be defined</td>
</tr>
<tr>
<td>16:00</td>
<td>Tea/Coffee break</td>
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<tr>
<td>17:00</td>
<td>Report of VCA Results: Food Safety, Nutrition and Zoonoses</td>
<td>K. Rösel and F. Ejobi</td>
</tr>
<tr>
<td>17:30</td>
<td>Successes and Failures in Uganda Technology Interventions on Animal Health and Zoonoses promoted in Uganda</td>
<td>Z. Nsadha</td>
</tr>
<tr>
<td>18:00</td>
<td>Closing of 1st day activities</td>
<td></td>
</tr>
<tr>
<td><strong>Wednesday 10 April</strong></td>
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</tr>
<tr>
<td>9:00</td>
<td>Report of VCA Results: Feeding and Breeding</td>
<td>N. Carter / D. Pezo</td>
</tr>
<tr>
<td>9:40</td>
<td>Successes and Failures with Technology Interventions on Pig Feeding promoted in Uganda</td>
<td>D. Mutetikka</td>
</tr>
<tr>
<td>10:10</td>
<td>Report of VCA Results: Value Chain Mapping</td>
<td>E.A. Ouma/P. Lule</td>
</tr>
<tr>
<td>10:40</td>
<td>Tea/Coffee break</td>
<td></td>
</tr>
<tr>
<td>11:10</td>
<td>Successes and failures in Uganda with Technology Interventions on Value Chains promoted in Uganda</td>
<td>A. Tatwangire</td>
</tr>
</tbody>
</table>
## ANNEX B: LIST OF PARTICIPANTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Institutional affiliation</th>
<th>Location</th>
<th>Telephone No.</th>
<th>Email address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosemary Bulyaba</td>
<td>VEDCO</td>
<td>Kampala</td>
<td>078-1-443831</td>
<td><a href="mailto:rapsando@yahoo.com">rapsando@yahoo.com</a></td>
</tr>
<tr>
<td>Jane Nakiranda</td>
<td>VEDCO</td>
<td>Kamuli</td>
<td>0752441944</td>
<td><a href="mailto:jane.kintu@yahoo.co.uk">jane.kintu@yahoo.co.uk</a></td>
</tr>
<tr>
<td>Gideon Nadiope</td>
<td>VEDCO</td>
<td>Kamuli</td>
<td>0712472233</td>
<td><a href="mailto:nadiopegideon@gmail.com">nadiopegideon@gmail.com</a></td>
</tr>
<tr>
<td>Richard Musenero</td>
<td>DPO - Local Government</td>
<td>Kamuli</td>
<td>0772595849</td>
<td><a href="mailto:musenero@hotmail.com">musenero@hotmail.com</a></td>
</tr>
<tr>
<td>Daniel Kasumbule</td>
<td>DVO-Local Government</td>
<td>Kamuli</td>
<td>0772587752</td>
<td><a href="mailto:kasibulecl@yahoo.com">kasibulecl@yahoo.com</a></td>
</tr>
<tr>
<td>Noah Kiwanuka</td>
<td>Mukono Municipality VO</td>
<td>Mukono</td>
<td>0772427236/0702427236</td>
<td><a href="mailto:noahkiwanuka@yahoo.com">noahkiwanuka@yahoo.com</a></td>
</tr>
<tr>
<td>Samuel Lule</td>
<td>Mukono VO</td>
<td>Mukono</td>
<td>0704645962/0775864427</td>
<td></td>
</tr>
<tr>
<td>Chris Wali</td>
<td>NAADS-Mukono</td>
<td>Mukono</td>
<td>0772-897943</td>
<td><a href="mailto:chriswali@yahoo.com">chriswali@yahoo.com</a></td>
</tr>
<tr>
<td>Lawrence Mayega</td>
<td>DVO-Local Government</td>
<td>Masaka</td>
<td>0772-601351</td>
<td><a href="mailto:mayeganyombi@yahoo.com">mayeganyombi@yahoo.com</a></td>
</tr>
<tr>
<td>Eve Luvumu</td>
<td>NAADS-Masaka</td>
<td>Masaka</td>
<td>0772663309</td>
<td><a href="mailto:luvumueve42@yahoo.co.uk">luvumueve42@yahoo.co.uk</a></td>
</tr>
<tr>
<td>Godfrey Ndyahika</td>
<td>Local Government</td>
<td>Masaka</td>
<td>From Lawrence</td>
<td></td>
</tr>
<tr>
<td>Francis Ejobi</td>
<td>Makerere University</td>
<td>Kampala</td>
<td>0701492236/0772492236</td>
<td><a href="mailto:ejobifrancis@gmail.com">ejobifrancis@gmail.com</a></td>
</tr>
<tr>
<td>Donald Kugonza</td>
<td>Makerere University</td>
<td>Kampala</td>
<td>0782874551</td>
<td><a href="mailto:donkugonza@gmail.com">donkugonza@gmail.com</a></td>
</tr>
<tr>
<td>Henry Mulindwa</td>
<td>NALLIRI</td>
<td>Tororo</td>
<td>0779253867</td>
<td><a href="mailto:mulindwaha@yahoo.com">mulindwaha@yahoo.com</a></td>
</tr>
<tr>
<td>William Nanyeeya</td>
<td>NALLIRI</td>
<td>Luwero</td>
<td><a href="mailto:will04nan@yahoo.com">will04nan@yahoo.com</a>, <a href="mailto:williannanyeeya@hotmail.com">williannanyeeya@hotmail.com</a></td>
<td></td>
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<tr>
<td>Peter Lule</td>
<td>Makerere University-SPVCD</td>
<td>Kampala</td>
<td>0775 204315</td>
<td><a href="mailto:mullule@yahoo.com">mullule@yahoo.com</a></td>
</tr>
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<td></td>
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<tr>
<td>9</td>
<td>student</td>
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<tr>
<td>2</td>
<td>John Jagwe</td>
<td>Farmgain Africa</td>
<td>Kampala</td>
<td>0772410574</td>
</tr>
<tr>
<td>2</td>
<td>Noelina Nantima</td>
<td>Principal Vet Officer-MAAIF</td>
<td>Entebbe</td>
<td>0772 515962</td>
</tr>
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<td></td>
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<tr>
<td></td>
<td><strong>ILRI Consultants</strong></td>
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<tr>
<td>2</td>
<td>David Mutetika</td>
<td>Makerere University</td>
<td>Kampala</td>
<td>0754220008</td>
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<tr>
<td>2</td>
<td>Zachary Nsadha</td>
<td>Makerere University</td>
<td>Kampala</td>
<td>0772410773</td>
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<tr>
<td>2</td>
<td>Alex Tatwangire</td>
<td>Consultant</td>
<td>Kampala</td>
<td>0772 682302</td>
</tr>
<tr>
<td></td>
<td><strong>ILRI/CIAT-NBO</strong></td>
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</tr>
<tr>
<td>2</td>
<td>Kathy Colverson</td>
<td>ILRI</td>
<td>Nairobi</td>
<td><a href="mailto:K.Colverson@cgiar.org">K.Colverson@cgiar.org</a></td>
</tr>
<tr>
<td>2</td>
<td>James Rao</td>
<td>ILRI</td>
<td>Nairobi</td>
<td><a href="mailto:j.rao@cgiar.org">j.rao@cgiar.org</a></td>
</tr>
<tr>
<td>2</td>
<td>Ben Lukuyu</td>
<td>ILRI</td>
<td>Nairobi</td>
<td><a href="mailto:B.Lukuyu@cgiar.org">B.Lukuyu@cgiar.org</a></td>
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<tr>
<td>2</td>
<td>Brigitte Maass</td>
<td>CIAT</td>
<td>Nairobi</td>
<td><a href="mailto:B.Maass@cgiar.org">B.Maass@cgiar.org</a></td>
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<td>2</td>
<td>Edward Okoth</td>
<td>ILRI</td>
<td>Nairobi</td>
<td><a href="mailto:E.Okoth@cgiar.org">E.Okoth@cgiar.org</a></td>
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<td></td>
<td><strong>ILRI-Uganda</strong></td>
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<tr>
<td>3</td>
<td>Emily Ouma</td>
<td>ILRI</td>
<td>Kampala</td>
<td><a href="mailto:E.A.Ouma@cgiar.org">E.A.Ouma@cgiar.org</a></td>
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<td>4</td>
<td>Michel Dione</td>
<td>ILRI</td>
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<td><a href="mailto:M.Dione@cgiar.org">M.Dione@cgiar.org</a></td>
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<td>5</td>
<td>Kristina Rösel</td>
<td>ILRI</td>
<td>Kampala</td>
<td><a href="mailto:K.Rosel@cgiar.org">K.Rosel@cgiar.org</a></td>
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<td>7</td>
<td>Natalie Carter</td>
<td>ILRI</td>
<td>Kampala</td>
<td><a href="mailto:n.carter@cgiar.org">n.carter@cgiar.org</a></td>
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<tr>
<td>7</td>
<td>Danilo Pezo</td>
<td>ILRI</td>
<td>Kampala</td>
<td><a href="mailto:d.pezo@cgiar.org">d.pezo@cgiar.org</a></td>
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<td>8</td>
<td>Rachel Miwanda</td>
<td>ILRI</td>
<td>Kampala</td>
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<td>9</td>
<td>Paul Basaija</td>
<td>ILRI</td>
<td>Kampala</td>
<td><a href="mailto:basaijapo@yahoo.com">basaijapo@yahoo.com</a></td>
</tr>
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</table>
ANNEX C: ONLINE EVALUATION

SPVCD VCA Workshop Evaluation

Final Evaluation of the SPVCD Project Workshop on Value Chain Assessment Result

INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE (ILRI)
Smallholder Pig Value Chains Development in Uganda (SPVCD) Project - Uganda

A workshop was organized by ILRI and its partners in the SPVCD project to “Review of the In-depth Value Chain Assessment and Preliminary Definition of Best-bet Interventions” in Kampala on 9th and 10th April 2013 at Hotel Africana. As a participant in the workshop, you are humbly requested to give your feedback on the success of the course.

This questionnaire evaluates the planning, processes and outputs of the workshop. Your cooperation in completing this questionnaire will be greatly appreciated. Completing the survey will take about 10-15 minutes of your time.

The information you provide will be useful in evaluating the output of the workshop and making plans for remaining phases of the project as well as improving future workshops/meetings. Your feedback will be treated with utmost confidentiality.

Livelihood assessment, decision-making and institutions
Results from descriptive analyses
Emily Ouma

1. Gender
   □ Female
   □ Male
SPVCD VCA Workshop Evaluation

2. Please Select the category of the organization you represented in the workshop
   - Government Agency/Ministry
   - ILRI Nairobi
   - ILRI Uganda
   - Local Government
   - NGO
   - Pig Producer
   - University
   - Other (please specify)

3. In general, I would rate the workshop activities as being ...
   - Excellent
   - Good
   - Average
   - Fair
   - Poor

4. On balance, would you consider the workshop objectives to have been achieved?
   - Yes, Fully
   - Yes, Partially
   - No, Not at all

5. The following were the two main workshop objectives, please rate their level of achievement in your opinion

   1. To gain deeper understanding of the results of the in-depth Value Chain Assessment of smallholder pig producers in Uganda
   - Not Achieved at All
   - Partially Achieved
   - Fully Achieved

   2. To select potential best-bet interventions that would address the opportunities and challenges of smallholder pig producers identified during the Value Chain Assessment process
   - Not Achieved at All
   - Partially Achieved
   - Fully Achieved
SPVCD VCA Workshop Evaluation

6. How would you rate level of presentation and content during the following sessions/topics at the workshop:

<table>
<thead>
<tr>
<th>1. Introduction of Workshop objectives and procedures</th>
<th>Poor</th>
<th>Fair</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
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</thead>
<tbody>
<tr>
<td>2. Methodology: How the In-depth Value Chain Assessment was conducted</td>
<td></td>
<td></td>
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<tr>
<td>3. Report of VCA Results: Pig Production Systems and Seasonal Calendar</td>
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<tr>
<td>4. Report of VCA Results: Livelihood analysis, gender roles and decision making, and social capital assessment through group membership</td>
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<td></td>
</tr>
<tr>
<td>5. Integrating Gender into Value Chains</td>
<td></td>
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<td></td>
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<tr>
<td>6. Group work to identify considerations (criteria) for selecting the best-bet interventions</td>
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</tr>
<tr>
<td>8. Report of VCA Results: Food Safety, Nutrition and Zoonoses</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>9. Successes and Failures in Uganda Technology Interventions on Animal Health and Zoonoses promoted in Uganda</td>
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<td></td>
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<tr>
<td>10. Report of VCA Results: Feeding and Breeding</td>
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<tr>
<td>11. Successes and Failures with Technology Interventions on Pig Feeding promoted in Uganda</td>
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<tr>
<td>12. Report of VCA Results: Value Chain Mapping</td>
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<tr>
<td>13. Successes and failures in Uganda with Technology Interventions on Value Chains promoted in Uganda</td>
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<tr>
<td>14. Group work to identify potential best-bet interventions</td>
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</table>

7. At the start of the workshop the following ground rules were set by participants. How do you rate the level of adherence to these rules during the entire workshop?

<table>
<thead>
<tr>
<th></th>
<th>Very Low</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Very High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being timely and keeping to agreed times of activities</td>
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<tr>
<td>Full participation by all</td>
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<td>Putting mobile phones on silent mode or switching off</td>
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<td>Limiting the use of Laptops except for workshop activities</td>
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<tr>
<td>Respecting each other’s opinion</td>
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<tr>
<td>Keeping the Workshop Discussions and Issues to the meeting room</td>
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<tr>
<td>Being audible (using “natural microphone”) at all times</td>
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<tr>
<td>Keeping focus on the topics/issues at hand</td>
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</table>
SPVCD VCA Workshop Evaluation

8. How do you rate the general performance of the workshop based on the following selected aspects?

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Poor</th>
<th>Fair</th>
<th>Average</th>
<th>Good</th>
<th>Excellent</th>
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<tbody>
<tr>
<td>Time Management</td>
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<tr>
<td>Workshop logistics &amp; Organization</td>
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<tr>
<td>Hotel and general accommodation</td>
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<td>Facilitation</td>
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<td>Workshop Flow and Program Logic</td>
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<td>Group work and exercises</td>
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<td>Use of audio-visuals</td>
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<td>Plenary discussions</td>
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<tr>
<td>Stakeholder representation</td>
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<td>Workshop materials &amp; PowerPoint Presentations</td>
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<tr>
<td>Clarity of way-forward</td>
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</table>

9. List three main aspects you consider as key weaknesses of the workshop

10. List three main aspects you consider as the strengths of the workshop

11. How can the potential best-bet interventions/practices/technologies identified in the workshop be further refined/packaged for integration in the project activities aimed at improving productivity in the pig value chains in the selected sites in Uganda

12. How can the emerging results of value chain assessment and strategies for improving small holder pig productivity in Uganda be best communicated and monitored?

******* END OF QUESTIONNAIRE *******
ANNEX D: SELECTED POWERPOINT PRESENTATIONS

Annex D1: VCA Process

Outline of the Presentation
- Selection of target sites (districts/sub-counties/villages)
- Development and testing of the VCA tool-kit
- Selection and training of facilitators
- The VCA tool-kit components
- The application of the VCA tool-kit
  - Contacting partners at district level
  - Selection of farmers
  - Launching workshops
  - FGDs (Farmers and key-informants)
- Data input and analysis

Selection of Target Sites (1)
- Step 1: Geographical targeting using GIS characterization (pig density, poverty level & market access).
- Step 2: Stakeholder consultation of step 1 and definition of “soft” criteria.
- Step 4: Minimum checklist to gather data for more specific site selection (counties and sub-counties).
- Step 5: Analysis of steps 1–4 and final site selection.

Selection of Target Sites (2)
- For each district, 4–6 sub-counties with high pig population (MAAIF/UBOS Livestock Census 2008) were selected.
- Consultations with partners (VDCs, NAAU, staff and local NGOs) in each of the selected districts to identify the value chain domains within the sub-counties was done.
- Site scoping with a minimum checklist administered to few farmers and actors to validate the value chain domains in each sub-county and also identify villages to be targeted for the value chain activities.

Selection of Target Sites (3)

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<td>Bungoma</td>
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</table>

35 villages selected: 18 Rural - Rural, 7 Rural - Urban and 10 Urban - Urban

Development & Testing of the VCA tool-kit
- Review and adaptation of tools used in other CRP 3.7 projects, as well as in the Livestock Data Innovation in Africa project (CRP 2.3).
- Tool-kit harmonized with the Safe Food Fair Food project (CRP 4.3).
- Tool-kit engendered where appropriate.
- Tool-kit tested in Matinya (Wakiso).
- Tool-kit shared with the Smallholder Pig VCs project in Vietnam.
April 9, 2010

WORKSHOP REPORT - VALUE CHAIN ASSESSMENT & BEST BET INTERVENTIONS IDENTIFICATION

The VCA tool-kit components
- Seasonal calendar
- Institutional interactions tool
- Production systems tool
- Social capital - involvement in collective action and benefits
- Activity clock - gender roles in production and marketing
- Decision-making tool - decision making and control of resources
- Livelihood analysis - income sources
- Value chain mapping
- Animal health
- Breeding
- Feeding
- Food safety and nutrition

Selection & Training of Facilitators
- Partners were contacted to propose candidates for the facilitators' short-term positions.
- Eight facilitators were selected from a list of 10 candidates. Two were maintained as back-up options.
- Facilitators are graduate students of Makerere University sponsored by ILRI. They will use some VCA data for their thesis.
- All facilitators were trained and participated in using the VCA tool-kit.

The application of the VCA tool-kit at district / village level (1)
- Farmers for VCA sessions selected at random from lists provided by local partners
- Launching workshops with district authorities and technical staff
- Review of VCA tool-kit with district technical staff, and coordination of field work.

The application of the VCA tool-kit at district / village level (2)
- Plenary session to introduce all participants to the VCA tool-kit.
- Farmers’ focus group discussions.
- Farmers distributed at random in groups, with two facilitators per group, to work on specific tools.
- Mixed or gender disaggregated groups according to the nature of the tools applied.

The application of the VCA tool-kit at district / village level (3)
- Separate focus group discussion with key-informants (information at village level).
- Plenary session to review/discuss constraints and opportunities identified in small groups working with specific technology components.

The application of the VCA tool-kit at district / village level (4)
- Key informant session
- Mixed group
- After a focus group discussion gathering in a park
- Baby session

ILRI SPVCD - Project
Data Input and Analysis

A summary of results obtained will be presented by the ILRI-Uganda team in this workshop.

VCA - Other Actors (1)

Inputs/Services:
- Feed input stockists and millers.
- Vet drugs stockists.
- Service providers:
  - Veterinarians/AMA/paravets
  - Owners of village breeding boars
  - Extension staff (public and private)
  - Credit

VCA - Other Actors (2)

Outputs:
- Traders of live pigs (including collectors and transporters)
- Slaughterhouses/abattoirs
- Processors (formal - Fresh Cuts/Quality Cuts)
- Retailers (meat/processed products) - butcheries, supermarkets, pork-joints
- Consumers - preferences for different pig/pork product attributes - potentials for a choice experiment study.
ANNEX D2: Pig Production Systems in Uganda

Smallholder Pig Production Systems in Uganda

Results from VCA descriptive analyses

Emily Ouma

Outline
- Description of livestock production systems in Uganda.
- Land tenure systems.
- Pig keeping objectives.
- Pig production types.
- Production system types and breeds.
- Production scale definitions - small, medium, large.

Livestock production systems in Uganda

Features:
- Tuber-based: usually cassava and sweet potatoes
- Maize and beans

Characteristics of the production systems
- Small farms - limited land resource typically:
  - Masaka (50ft x 100ft plots), Mukono (0.5 acres), Kamuli (0.5 - 4 acres).,
  - Mixed cropping systems (banana x coffee, maize x beans x cassava), though mono-cropping also practiced - e.g., sweet potatoes.
- Livestock types kept: cattle, goats, pigs, poultry.

Land tenure systems
- Customary.
- Freehold (titled).
- “Mallo” tenure.
- “Bibanja” holders.
- Leasehold.
- Trust land.

Rainfall calendar

Graphical representation of rainfall patterns.
Livestock keepers – excluding pigs

- Cattle: Keeping common in R-U and R-U: 40% of 5h compared to only 24% in U-U.
- Goats: 18N–48N compared to 9% in U-U.
- Poultry: Common in all VC.

Objectives of pig keeping

- Main objective: Income and soil fertility management.
- No significant difference between men and women.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Average rank (1=highest)</th>
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<tbody>
<tr>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>Income from piglets/pig sales</td>
<td>1.3</td>
</tr>
<tr>
<td>Income from pig meat sales</td>
<td>2.0</td>
</tr>
<tr>
<td>Source of wealth</td>
<td>2.3</td>
</tr>
<tr>
<td>Manure production</td>
<td>2.3</td>
</tr>
<tr>
<td>Disposal of waste</td>
<td>5.0</td>
</tr>
<tr>
<td>Nutrition/food security</td>
<td>2.5</td>
</tr>
<tr>
<td>Occupation</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Indicators of success in achieving objectives

- Income from piglets/pig sales:
  - Ability to pay school fees.
  - Purchase of land and farm expansion.
  - Ability to pay off debts.
  - Ability to meet medication costs, buy good clothing for family.

- Manure production:
  - Improved soil fertility - high crop yield due to manure application.
  - Harvest bigger bunches of ‘matooke’.
  - Biogas for household use.

- Source of asset/wealth:
  - Construction of better family housing (roofing/wall material).
  - Purchase of plots of land.
  - Purchase of other livestock (cattle).
  - General home development.

- Nutrition/food security:
  - Meat for home consumption.
  - Increased quantity of pork consumption.

Pig production types

- Breeder
- Grower
- Breeder-grower

Pig production types, by value chain type

<table>
<thead>
<tr>
<th>Breeders</th>
<th>Growers</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural-rural</td>
<td>26</td>
<td>38</td>
</tr>
<tr>
<td>Rural-urban</td>
<td>20</td>
<td>28</td>
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<tr>
<td>Urban-urban</td>
<td>24</td>
<td>37</td>
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</tbody>
</table>

Production system types

<table>
<thead>
<tr>
<th>Rural-rural</th>
<th>Rural-urban</th>
<th>Urban-urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensive contrast</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Semi-intensive mixed-based</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Extensive cultural, horti</td>
<td>6</td>
<td>43</td>
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</table>
Proportion of households, by production scale - growers

Summary

- Pig production – occurs within the overall mixed crop and livestock systems.
- Main objective of pig keeping – income
  - School fees payment
  - Meet other expenditures and investments on farm
- Most of the pig keepers are smallholders;
  - Breeders: 60-65%
  - Growers: 50-65%
- Smallholder definition
  - Breeders: 1-2 sows (including replacement females)
  - Growers: 2-3 grown pigs
- Production system types
  - Varies by value chain domain.
- Institutions promoting breed change.
ANNEX D3: Livelihoods Assessment, Decision Making and Institutions
Perceptions

**Men group:** “The enterprise benefits the whole family. Since the men have to go out to look for money, women are left at home to take care of the pigs. On the other hand, the men know the market opportunities better since they interact widely and have to take the responsibility of marketing.”

**Activity clock - Men**

**Activity clock - Women**

**Membership to pig producer groups**
April 9, 2010

WORKSHOP REPORT - VALUE CHAIN ASSESSMENT & BEST BET INTERVENTIONS IDENTIFICATION

**Membership to farmer groups**

![Membership to farmer groups chart]

**Institutions working with the communities on livestock and agriculture VC**

<table>
<thead>
<tr>
<th>Urban: Urban</th>
<th>Rural: Urban</th>
<th>Rural: Rural</th>
<th>Rural: Rural</th>
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<tbody>
<tr>
<td>(1) Climate Change, NAADS</td>
<td>(1) Kalango, BRAC</td>
<td>(1) Kirembo, CO-AID &amp; World Vision</td>
<td>(1) Namasembe, CO-AID &amp; World Vision</td>
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<tr>
<td>(2) Kirembo, BRAC &amp; NAADS</td>
<td>(2) Kirembo, BRAC &amp; NAADS</td>
<td>(2) Kirembo, CO-AID &amp; World Vision</td>
<td>(2) Kirembo, CO-AID &amp; World Vision</td>
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<tr>
<td>(3) NAADS, NAADS &amp; World Vision</td>
<td>(3) NAADS, NAADS &amp; World Vision</td>
<td>(3) NAADS, NAADS &amp; World Vision</td>
<td>(3) NAADS, NAADS &amp; World Vision</td>
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</table>

**Example of institutional rankings – venn diagrams**

![Example of institutional rankings – venn diagrams]

**Summary**

- Important role of pigs as a source of livelihood – especially for women in UU.
- Contribution of crops and other livestock (cattle and poultry) to household income.
- Gendered differences in pig enterprise decision-making and labor burden.
- Social capital – not developed in some locations.
- Limited existence of pig farmer groups compared to crops. Willingness to participate in such initiatives is high.
- Existence of institutions working on pig value chains – potential for collaboration to improve the VC.

**Thank you**

![Thank you image]
ANNEX D4: Food Safety and Food Security

Safe Food, Fair Food

Outline
- Who eats pigs? Reasons for eating more or less pigs?
- Seasonality of pig consumption?
- Accessibility of pork?
- Pork quality attributes for consumers
- Risk increasing practices
- Risk mitigating practices
- On-going: urban consumer survey

Materials and methods
- 24 participatory rural appraisals with pig producers
- 10 participatory rural appraisals with pig producer as consumer
- 27 focus group discussions with mothers of young children

101 men, 194 women participated

Who eats pigs?

The role of pigs in the diet quality (Mukono vs Kamuli)
Seasonality of pig consumption?

- Yes, driven by festivals:
  - Christmas
  - Easter
  - Uganda Martyr’s Day (June 3)
  - Independence Day (October 9)

- Seasonal weather changes:
  - Dry season = season of swine disease outbreaks

- Seasonal cash availability:
  - School fees (February, May, August)
  - Coffee/maize harvest (June, July, November, December)

Drivers of pig consumption

Are pig feeds competing with human food?

- Not in the assessment sites, even though feeds were identified as a major constraint for producing more pigs.
- Farmers try and sell stock after fattening them in “times of plenty” (during/shortly after the rains)
  - Kitchen scraps (peels from cassava or potatoes, matooke or potho leftovers)
  - Tuberous (taro, sweet potatoes, cassava)
  - Fruits (avocado, sweet bananas, jackfruit, mango, papaya)

Reasons for eating (more) pig?

- Money: “The rich eat more because they can eat whatever they want whenever they want”
- “Eating pork clears the skin” (Mukono)
- “Eating pork (and bone marrow) makes strong bones” (Masaka)
- “Eating pig cures measles in children caused by eating goats meat” (Kamuli)

Reasons for eating no pig?

- Religion:
  - Muslims, SDA, Borne Again (Masaka): “pigs are for demons”
- Traditional religions:
  - Abaswazi (Kamuli): don’t eat eggplant, fish and pork
  - Ababaga (Bamota): don’t eat pork
  - Bamasiya (Kamuli): don’t eat anything that produces blood (vegetarians?)
- Beliefs:
  - Pregnant women must not eat pork or “the child might have a mouth like a pig” (Masaka)
  - If children eat meat “they might delay speaking” (Masaka)
  - If children eat offals “they might become dumb” (Masaka)
Risk mitigating practices

- Better slaughter practices in rural sites than in urban slaughter house
- Awareness of diseases transmitted from pigs/pork to people – no raw meat consumption
- Thorough cooking, reheating

On-going: urban consumer survey

- Higher consumption
- Lack of slaughter hygiene
- Salmonella spp, Brucella spp already identified
- Slaughter house supplies both formal and informal market
- Pork consumption related to alcohol consumption

Acknowledgements

- [List of acknowledgments]
Annex D5: Value Chain Mapping: Results of Descriptive Analysis

MARKETING OUTLETS FOR SMALLHOLDER PIG FARMERS

- Piglets - local within the neighborhood.
- Grown pigs - 4 major outlets:
  - neighborhood butcher,
  - butcher in another town,
  - traders
  - Direct sales to consumers.

MARKETING CHANNELS FOR GROWN PIGS - MEN GROUP

MARKETING CHANNELS FOR GROWN PIGS - WOMEN GROUP

GROWN PIGS PRICES
**SUMMARY**

- The common output channels are the local butcheries.
- Where women are organized in groups they have access to inputs and price-lucrative market opportunities.
- Limited access to inputs but women are more constrained.
- Piglet prices are higher in the urban-urban value chain.
- Maize mills are the most common outlets for purchasing feeds (maize bran).

**COMMON CONSTRAINTS**

- Inputs are generally expensive, of poor quality and not easily accessible in R-R domain.
- Low output prices.
- Lack of knowledge on live weight estimation.
- Limited markets
- Lack of market information
- Poor quality pigs especially (R-R and R-U)