KIT Royal Tropical Institute

Value Chain Platforms (VCPs) in the EaTSANE project

Launching the VCPs in Kenya & Uganda: report

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Content

1 Introduction

1.1 Background on Value Chain Platforms

Promoting food and nutrition security in Kenya and Uganda requires collaboration between relevant actors to create momentum for innovation among smallholder farmers and other actors in the value chain. The EaTSANE research project[1] helps to facilitate this through creating so-called Value Chain Platforms (VCP).

VCPs are multi-stakeholder forums where input suppliers, farmers, traders, sellers and actors of the enabling environment of the value chain can meet and interact, discuss and analyse problems that affect different stages of the value chain, and look for collective solutions to solve these problems. The VCPs also act as channels for information exchange, knowledge needs and research findings between value chain actors and researchers involved in EaTSANE.

VCPs are based on the notion that individual actors cannot by themselves address problems that affect or are affected by different stages of the value chain. External 'solutions' also will not be able to bring about the required change to make value chains function more effectively for those involved. Research projects such as EaTSANE can, however, create and facilitate spaces for local actors to discuss problems and deliberate on feasible joint action, following the motto of 'local solutions for local problems'.

The roles and functions of VCPs are as follows:

- Connect stakeholders and facilitate interaction and discussion.
- Provide opportunities to jointly assess and prioritize challenges affecting local value chains.
- Identify and experiment with solutions (including post-harvest handling, processing, value chain coordination, marketing) in a systematic way.
- Mobilise resources and effective support services around promising options, including financial services and linkages to companies.
- Promote promising practices, create demand and markets to allow their upscaling.
- Allow sharing and accessing information, knowledge experiences related to (promotion of) solutions.

EaTSANE chooses to work with VCPs at the ward level in Kenya (Teso South) and Uganda (Kapchorwa), addressing nutrient-rich crops that otherwise receive little attention. In Kenya, the VCPs focus on finger millet, cowpeas and black nightshade. In Uganda, the VCPs look at bush beans, climbing beans, field peas and black nightshade.

The VCPs are facilitated by researchers from KIT and a local consultant who speaks the language and knows the local farming community and different (input and output) market actors.

[1] Education and Training for Sustainable Agriculture and Nutrition in East Africa

1.2 VCP launch in Kenya and Uganda

This report documents the launch of VCPs in two locations in Teso South (21 and 22 October 2019) and two locations in Kapchorwa (25 and 26 September 2019). All VCPs were facilitated jointly by Mona Dhamankar and Verena Bitzer (both KIT), together with Martin Namaha (for Teso South) and Abraham Kiplimo (for Kapchorwa).

For each VCP, we had invited 30 stakeholders from the value chain (for the specific crops included in Working Package 2 of EaTSANE). We worked through the following programme:

1. Welcome
2. Introductions

[Breakfast / tea break]

3. From production to consumption: mapping the value chains (group work)
4. Challenges along the value chains (group work)

[Lunch break]

5. Prioritising challenges (voting)
6. Tentative solutions (group work)
7. Next steps

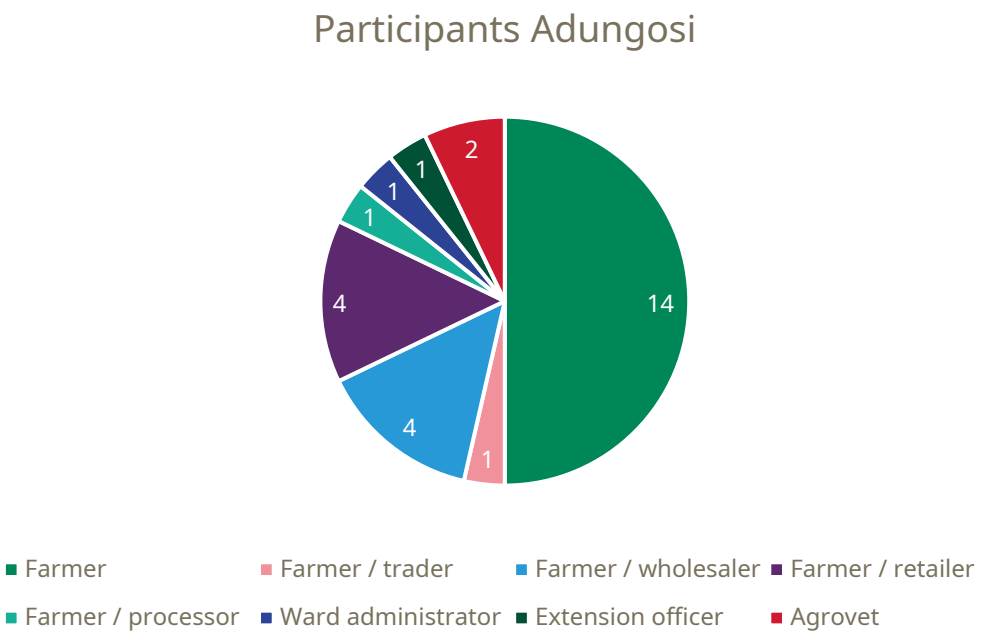
[Afternoon tea]

The launch workshops started around 10h00 and lasted until 16h30.

2 Value chain platform, Kenya I

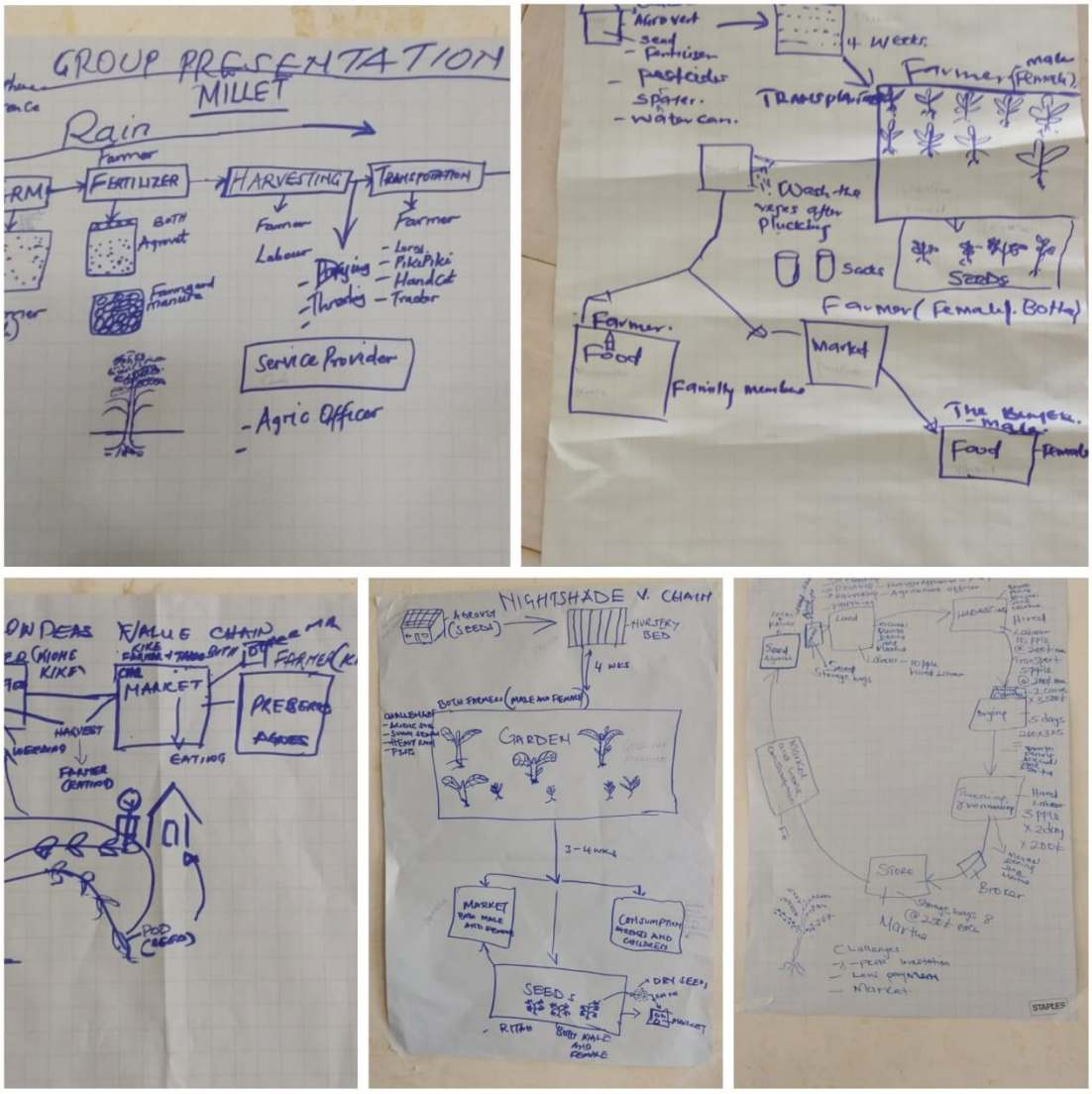
2.1 Introduction

The first VCP meeting was held on 21 October 2019 in Chakol South ward / Adungosi village with 28 participants. The following stakeholder categories were observed:



2.2 Mapping the value chains for millet, nightshade and cowpeas

The VCP participants were asked to draw a 'rich picture' of the supply chain, showing different processes/ stages the three crops – millets, night-shade, cowpea – went through from production to consumption. Two groups drew pictures of the millet value chain, two worked on night-shade while one drew the cowpea value chain (see pictures below). The groups were also asked to list all actors involved, and also indicate where they featured, and in what role.



Salient points observed in the pictures:

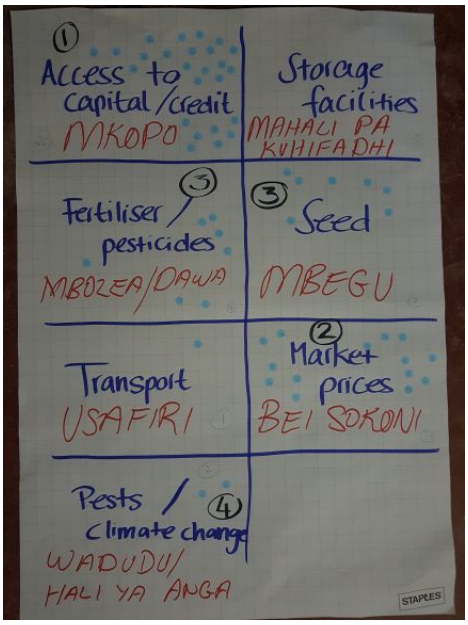
- Every picture included pre-production stages starting with land preparation, procurement of seed and fertilisers from agrovets;
- For millets, post-harvest activities included drying, threshing and winnowing- carried out by hired labour; millet processors were missing
- Several market actors were mentioned – farmer traders, retailers, wholesalers, and brokers. The participants insisted that there was a clear distinction between traders and brokers – were the latter did not have or sell their own produce;
- Extension officers featured as service providers in one drawing whereas government officials were not considered as important actors;
- Cowpea is sold as seed as well as grain (less); leaves have high demand. Some farmers are also seed traders.
- As the greens (night-shade, cowpea leaves) are perishable many women farmers process and preserve them (boil and dry) for off-season consumption.
- Most farmers depend on the traders and wholesalers to transport the produce to the markets.

2.3 Identification of key problems

Care was taken to explain that different actors faced different problems. Each group explained their top three challenges in plenary. The challenges were clustered as per emergent themes, resulting in the following list:

- **Capital** – farmers have difficulties in raising capital to run their farms. They usually borrow money from local institutions such as SACCO, table banks etc. These are short term loans with interest rates ranging from 10 to 50 percent; secondly repayment schedules start within one month of the disbursement, well before the crops are not yet ready for harvesting, and hence farmers find it difficult to repay. Agrovets mentioned lack of capital to increase their inventory as a major problem. Input costs are high and in order to raise funds, they need to add substantial margins before selling to farmers. They also found recovering payment for inputs from farmers a challenge. Many inputs require government licences, and the licence fees are quite high.
- **Storage** is a problem especially for all three crops: oversupply of produce after harvest leads to lower prices. Hence farmers prefer to store the produce till the market settles down, and prices go up. However inadequate and unsuitable storage facilities is a challenge – weevils attack the millet stored in bags, and it is also likely to be eaten by rats; many farmers place the bags directly on the floor (do not use tarpaulin) and the grain rots due to the dampness in the floor.
- **Inputs: Seeds –** the agrovets complained that it was difficult for them to ascertain the quality of the seed they sold – they have to depend on the varieties supplied by the distributors; secondly, farmers demand for seed is unpredictable and the agrovets do not have adequate storage facilities to store/ stock the unsold seed. They also felt that germination rate of 'old' seed is low, and hence farmers are further unwilling to buy old seed. The farmers felt that sometimes the agrovets sold them the wrong varieties (millet) and/or old/ expired seed.
- **Market:** Immediately after harvest, the market is flooded with produce hence prices drop. Therefore, farmers have to look for markets beyond their regular local and town markets. Some of the produce such as cowpea leaves, night-shade have low shelf life and if not sold on time face the danger of getting spoilt (which further lowers the price). Inadequate storage facilities also comes in the way of farmers taking the time needed to look for new markets. **Traders** face challenges of inadequate capital to buy when prices are low, store and sell once markets have settled down and/or when the availability is low. This is applicable to all three crops.
- **Transport** is a challenge for farmers as well as traders –traders are willing to collect the produce only when large quantities are available. However, as the produce matures at different times, it becomes difficult (and unviable) for them to collect the produce from individual farmers. If the traders are not able to sell all produce in one market, they need to spend more on transporting the produce to other/ faraway markets in search of better prices. For individual farmers, transport hire is expensive and as their crop matures at different times, sharing transport is not possible.
- **Extension-related: the staff** mentioned lack of adequate manpower (numbers), transport, training material and resources to organise demonstrations as major constraints. They also felt that farmers did not comply with new practices (?)

2.4 Prioritising problems



Each participant was given to vote for their top 2 challenges from the challenges listed above. **Lack of capital and/or credit** obtained the highest number of votes (27), followed by **market-related challenges** (14) and difficulties in **accessing inputs** – pesticides and fertilisers (7 votes) and seed (7 votes). Inadequate storage, although mentioned as a challenge by some, did not attract a single vote.

2.5 Tentative solutions

The VCP participants were split into four groups to identify tentative solutions to the four main problems, as selected through the exercise of section 2.4. All groups were asked to proceed along three main questions:

1. What can we do by ourselves?
2. For what do we require a little assistance?
3. For what do we require a lot of assistance?

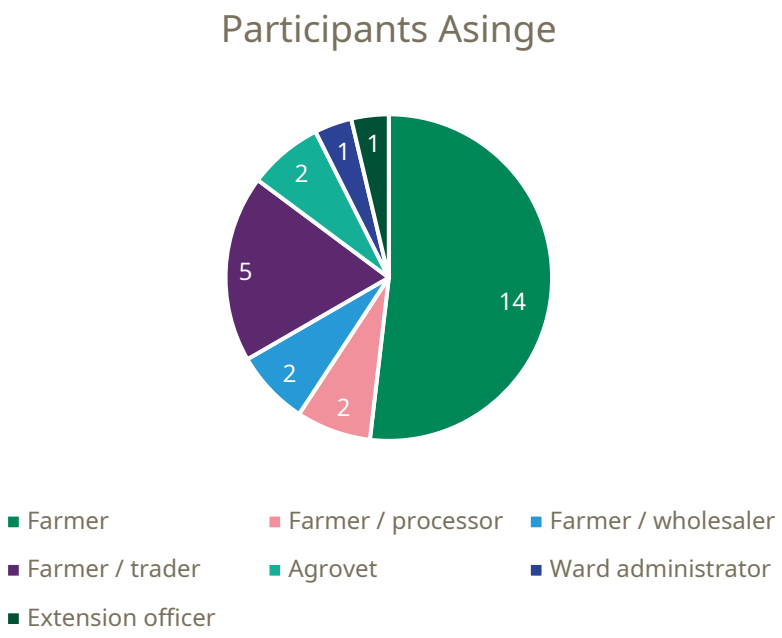
	By ourselves	By ourselves & little assistance	By ourselves & external resources
Addressing the difficult access to inputs (fertiliser and pesticides)	• Collect cow dung to use as fertiliser, both as farmyard and compost manure • Mobilise funds and buy fertiliser • Use Tithonia plant to make pesticides and then spray (for all plants; fights caterpillars) • Crop rotation for reduced stress on soil: plant nightshade, rotate with beans. Currently there is crop rotation, but not according to a particular programme • Sharing ideas in the platform. There are knowledgeable people in this group who have managed pests	• From extension officers: more information on pest management and fertiliser for improved yields • Demonstrations: members can come and see what we are supposed to do • Buy more pesticides and fertiliser through subsidy	• Financial assistance to buy better fertiliser (by NGOs or government) • More assistance to get new technologies • More assistance to get new products in the market (e.g. pesticides)
Access to capital & credit	• We can have merry-go-rounds. Maybe this week, somebody is assisted	• Get someone who is knowledgeable to train us on fund management	• Get training on financial management to manage

	with 50 shilling, then the next week, another farmer is assisted • Table banking within group • Group farming: help each other so that farmers need to hire fewer labourers	• Extension officers to link farmers to agricultural development loans • Go to agricultural AFC (Agriculture Finance Corporation)	merry-go-rounds and table banking • Training on business and resource mobilization
Low prices and difficulty to access markets	• Do a market survey in our county before going to the market; understand how much money will markets pay • Group selling (buyer comes and picks up produce at one place) (collective marketing) • Seek contracts with authorities, e.g., Kenya Breweries • Staggered planting and harvesting, especially in horticulture	• Extension officers to train farmers on post-harvest practices and provide market information • Form traders group • County government to link farmers to buying companies, e.g. Kenya Breweries	• Government to construct processing plants in villages
Access to and demand for high quality certified seeds	• Farms must be prepared for easy germination of seeds • Proper planting of seeds, e.g. overloading of soils on seedlings must be avoided • Visit seed companies that produce seeds • Seed research • Sample and demonstrate benefits of seed	• Linkages between extension and agro-vets to build trust • New skills on how to preserve seeds	• Linkages to research institutes for access to improved seeds, e.g. KARI, KALRO, KEPHIS, etc.

3 Value chain platform, Kenya II

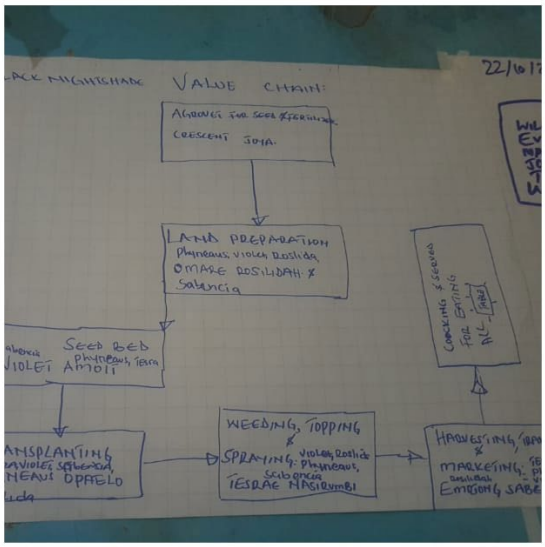
3.1 Introduction

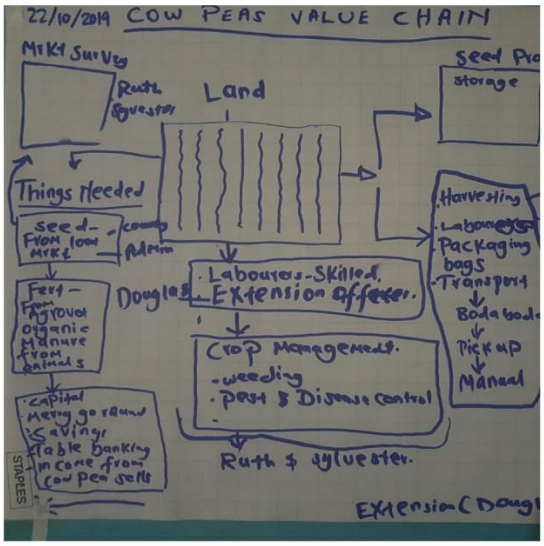
The second VCP meeting was held on 22 October 2019 in Chakol North ward / Asinge village with 28 participants. The following stakeholder categories were observed:

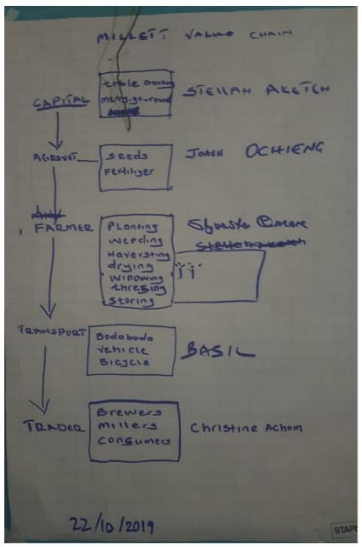


3.2 Mapping the value chains for millet, nightshade and cowpeas

The VCP participants were asked to draw a 'rich picture' of the supply chain, showing different processes/ stages the three crops – millets, night-shade, cowpea – went through from production to consumption. Two groups drew pictures of the millet value chain, two worked on night-shade while one drew the cowpea value chain (see pictures below). The groups were also asked to list all actors involved, and also indicate where they featured, and in what role.







Salient points observed in the pictures:

- Farmers tend to include different farming activities such as land preparation, weeding etc. in the mapping of value chains
- Markets are not differentiated into the various levels. Once farmers sell, the value chain 'ends' in their perception.
- Nightshade: some farmers plant for subsistence, others for subsistence and selling
- Access to credit, if at all, through table banking or merry go rounds. Farmers generally don't like loans, because there is always uncertainty whether they can repay the loan (depends on harvest). Nonetheless, many farmers (about half of the participants) take loans
- Although most farmers use own saved seed and/or local seed bought from neighbours or local markets, the participants showed agrovets as the only supplier/ source of seed.
- For millet, farmers can obtain certified seed (high yielding varieties) from agro-vets or sometimes from the ministry. However, mostly they use their own seed or buy seeds from friends, neighbours or the local market.
- Seed traders also featured as important 'buyers' of cowpea grain
- Fertiliser: manure and DAP are used for cowpeas and nightshade. No/little manure for millet.

- Millet: farmers hire labourers or use community labour (other farmers) for planting, harvesting and post-harvest handling.
- Nightshade: farmers prefer transport by foot to save money on motorbikes.
- Price: When traders come to the village to buy directly from farmers, they buy at a lower price, but it is easier to bargain at your own farm than at the market and you save time because you don't have to transport the produce anymore. Even at the market, the risk is that there is a lot of the same produce, so also here the price can be low. It depends on the quality and quantity.
- Common order of selling: first to neighbours; if they don't need, they sell at local markets. Then further away markets, e.g. Busia, Malaba, Bungoma.
- Packaging was mentioned as an important step in the VC, esp. For nightshade
- Transporters feature as actors only when far away markets are accessed
- 'other' farmers were included as suppliers of farm manure (as an input)
- Two VC maps included home-scale preservation and value-added processing for consumption
- Only one picture showed extension officers as actors contributing to the value chain.
- Difference between market actors:
    - A broker makes linkages between farmers and buyer. They will negotiate prices to take a commission but they do not handle the produce itself and they do not pay taxes.
    - A trader physically buys the produce and then sells at a margin.
    - A wholesaler buys the produce in bulk, keeps stock and then sells to a retailer or consumer (or even other wholesaler) in bulk.

3.3 Identification of key problems

Labour

- Farmers. High labour needs in agriculture, e.g. transplanting needs a lot of labour and must be done within a short amount of time; the same with harvesting. As all farmers need labour during the same time, it is very expensive.

Pest and disease management

- Farmers. Spraying: some drugs are harmful and dangerous to people's health
- Farmers. Striger is destroying our crops
- Farmers. Lack of knowledge on production techniques

Nutrition

- Consumers. Poor knowledge of how to cook → nutrition of food is lost

Access to seeds

- Farmers. No way to know quality of seeds because one is not able to tests the seeds upfront, even with certified seeds from agrovets
- Farmers, agrovets. Seeds are unreliable, even certified seeds
- Farmers, agrovets. Cost of seeds at local agrovet is higher than agrovets in Busia
- Agrovets. Sometimes availability of seeds is a problem, even if there is demand for seeds
- Farmers. Local (uncertified) seeds have low productivity and are prone to diseases
- Farmers. Lack of seeds that produce high yields

Lack of markets

- Farmers, traders, wholesalers, retailers. Low prices when produce is abundant
- Farmers, traders, wholesalers, retailers. Many farmers plant at the same time → oversupply
- Farmers, traders, wholesalers, retailers. During rainy season, prices are low
- Farmers. All farmers grow the same crops → competition
- Farmers. Brokers buy at farms at low prices

Climate

- Farmers. Too much rain, too much sunshine, hailstorm
- Farmers. New pests may invade the farm
- Farmers. Too much rain causes flooding of water in farms also prolonged droughts cause drying of soil
- Farmers. Planting depends on rain → unpredictable

Storage

- Farmers, traders, retailers. Perishability of nightshade and cowpea leaves
- Farmers, wholesalers. Pest problems during storage, e.g. rats
- Farmers, consumers. Lack of knowledge on how to preserve cowpea leaves (leaves can be stored for 3 months for home consumption, but farmers don't know about it)

Poor soils

- Farmers. Sandy soils reduce the production of cowpeas
- Farmers. Soil acidity reduces the fertility of soils

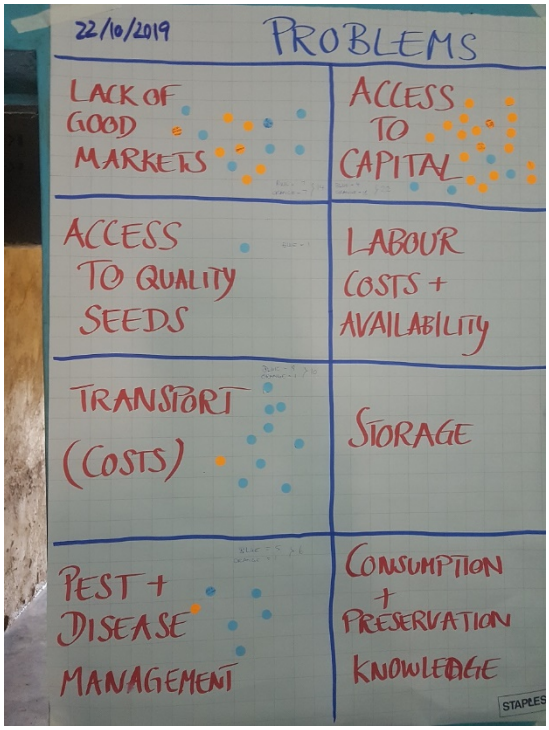
Lack of capital

- All. Delay of money if they borrow from table banking or merry go rounds
- All. Lack of enough capital
- Farmers. Low capital to farm large land

Transport

- Farmers, buyers. Buyers should come to farmers to buy produce at farm gate, but mostly farmers need to go to the market
- Farmers, buyers. Especially when supply of produce is high, traders don't come to the farms
- All. High costs of transport
- All. Transport is especially costly during rainy season because of poor roads

3.4 Prioritising problems



Each participant was given to vote for their top 2 challenges from the challenges listed above. **Lack of capital** and/or credit obtained the highest number of votes (total 22; 1st priority: 18, 2nd priority: 4), followed by **lack of good markets** (total 14; 1st priority: 7, 2nd priority: 7). Accessibility and affordability of **transport** came in third place (total 10; 1st: 1; 2nd: 9) and **pest/disease management** in fourth place (total 6; 1st: 1; 2nd: 5). **Access to quality seeds** received only 1 vote, and problems of labour costs, storage, and consumption/preservation knowledge did not attract any votes.

3.5 Tentative solutions

The VCP participants were split into five groups to identify tentative solutions to the five main problems, as selected through the exercise of section 3.4. All groups were asked to proceed along three main questions:

4. What can we do by ourselves?
5. For what do we require a little assistance?
6. For what do we require a lot of assistance?

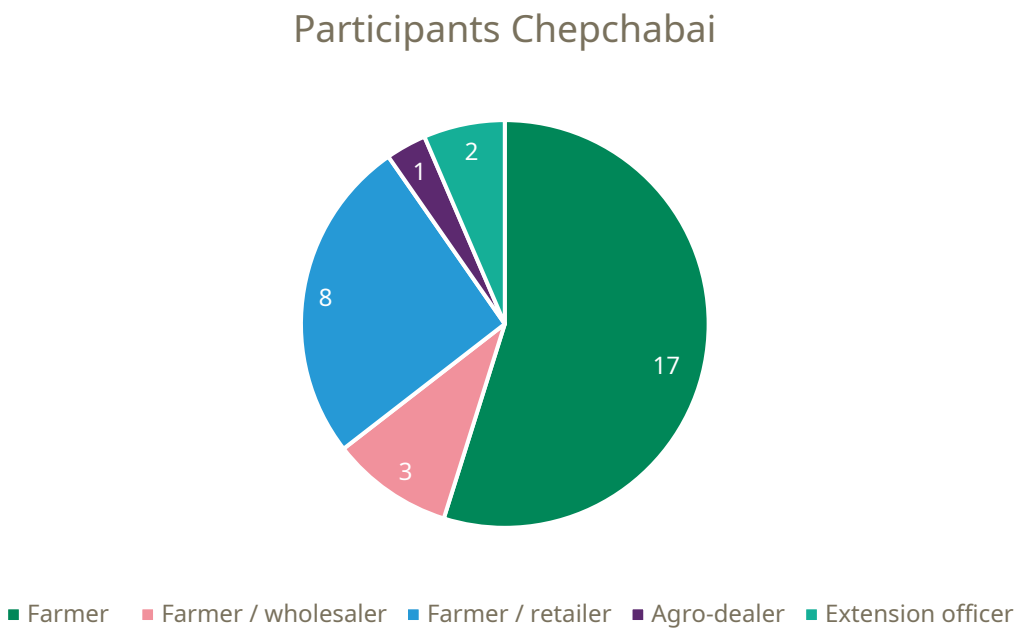
	By ourselves	By ourselves & little help	By ourselves & external resources
Pest & disease management	• Use locally available resources like ash, pepper, neem tree, tithonia. Their extracts control most pests, e.g. army worm • Use sand to reduce army worm population • Early land preparation and planting. Planting needs to be early because pests come later • Disease resistant varieties. Look for varieties not affected by pests and diseases	• Call extension officer to report problem. Extension officer needs to visit and offer solutions • Extension agents should ask for right pesticides at local agro-vets	• Ask help from researchers • Collaborate with NGOs with the knowledge of a given pest and disease
Lack of capital	• Table banking • Form groups and do small projects collectively	• For those (women) who work with NGOs, e.g. AFC, to get access to financial assistance	• Find agricultural extension officers to help us financially • Contact agricultural office to access public schemes

	• Savings: when you get a profit, save it and use it next season • Share labour burden to reduce costs for all involved • Hire out land to obtain funds and to reduce costs	• Contract farming (sign contracts with buyers) • Access SACCOs	• Harambee: fund raising. You call people to see your situation and convince them to invest, e.g. governor, president • Seek for financial support by writing a proposal for a project
Transport	• Carry your goods by yourself to the market or at least to the motorbike • Join other farmers and hire transport together to take produce to the market	• Borrow money from table banking to cover costs of transport	• Borrow money from bank or table banking or other source to purchase own lorry or motorbike • If roads are not accessible, seek assistance from county government or national government
Markets	• Do staggered planting, e.g. with irrigation, so that you reach the market at different times • Good quality produce to attract better buyers • Producers also need to consume • Diversify planting, so that farmers have different crops	• Form marketing associations • Go to extension officers and other business people to look for a market and market information • Do market survey to determine what to plant based on what is needed	• Use advertisement for our produce, e.g. radio, to increase demand • Ask government support in marketing • Form/join cooperatives • Take produce to Uganda
Storage	• Construct traditional granatories (edula) based on local materials • For millet: after harvesting, tie the bunches and put them in the kitchen for smoking (to preserve seeds) • Construct storage sheds with old iron sheets or timber • Sundry millet and put them in gunny bags to ensure that they don't get wet • Cowpeas: dry the seeds and put insight the pot mixed with ashes • Boil and sundry cowpeas	• Construction of silos by groups or cooperatives owned by farmers • Use available government silos	• Hire or construct satellite stores for storage, owned by farmers

4 Value chain platform, Uganda I

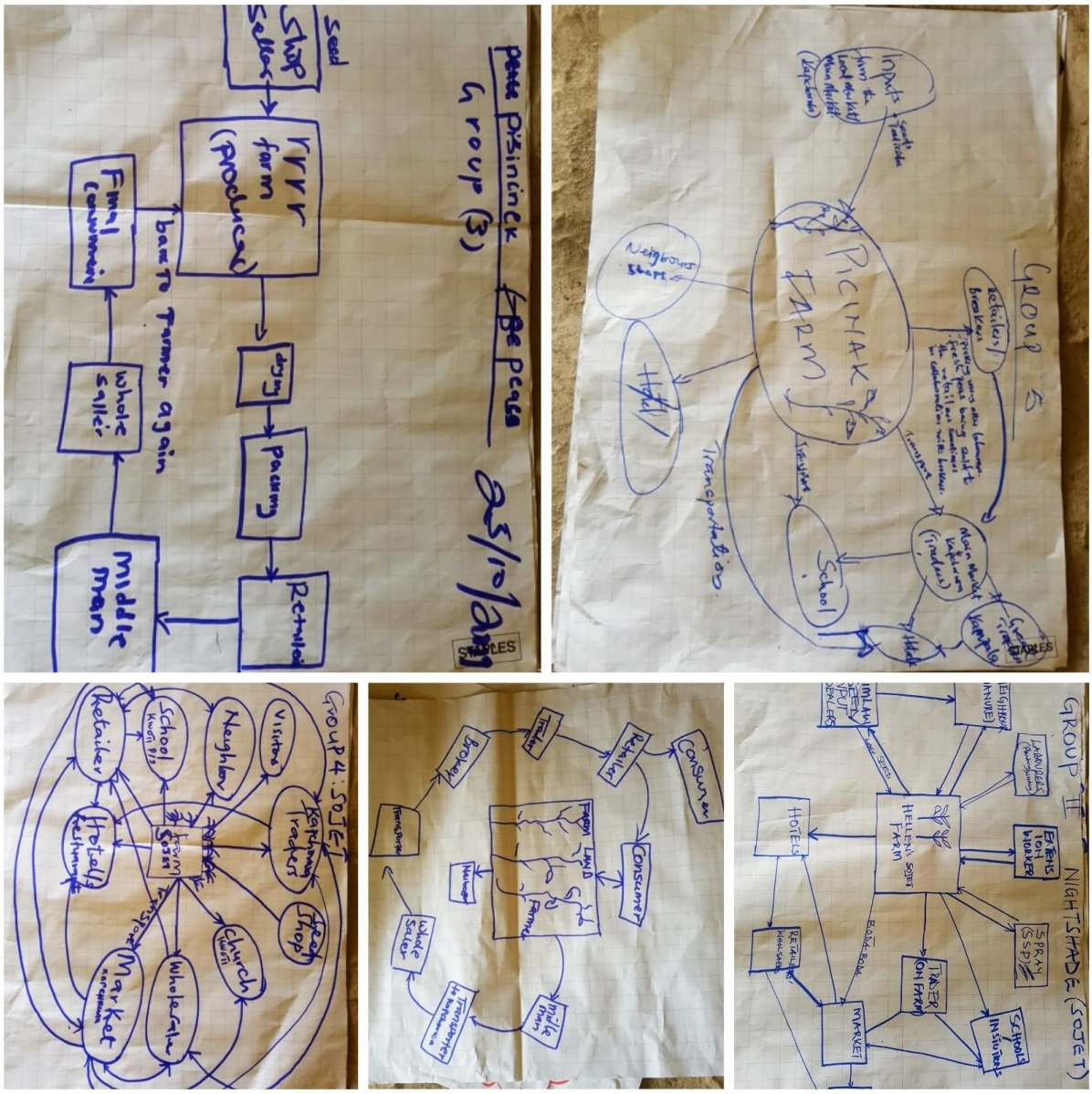
4.1 Introduction

The first VCP meeting in Uganda was held on 25 October 2019 in Chepchabai village with 31 participants. The following stakeholder categories were observed:



4.2 Mapping the value chains of field peas and nightshade

The VCP participants were asked to draw a 'rich picture' of the supply chain, showing different processes/stages from production until consumption for nightshade and field peas. Two groups drew pictures of the nightshade value chain ('sojet') and three groups worked on field peas ('pincinak') (see pictures below).



Salient points observed in the pictures:

- Most VC maps showed well differentiated markets starting with neighbours, to local traders, wholesalers selling to 'great' traders from Kampala, retailers and also institutional buyers such as schools, hotels and churches. They also showed transactions taking place between different market actors.
- Seed sources primarily covered seed shops, while one mentioned self-saved seed as the only source of seed.
- For field peas, one map showed different value chains for fresh and dried peas. Fresh peas are sold to retailers or brokers (and not to wholesalers)
- With reference to transport, as a rule farmers take their produce to the market. The mode of transport varies according to the quantity. Beyond local markets transport is borne by the traders. Only if farmers have more to sell, they take it to the main market themselves.
- One map also showed barter between farmers where farmers exchanged produce for manure.

- Service providers (sprayers) and extension agents also featured in two maps as important actors.
- Hired, skilled farm labour (including farmer neighbours) needed for planting and weeding were also included as important actors.

4.3 Identification of key problems

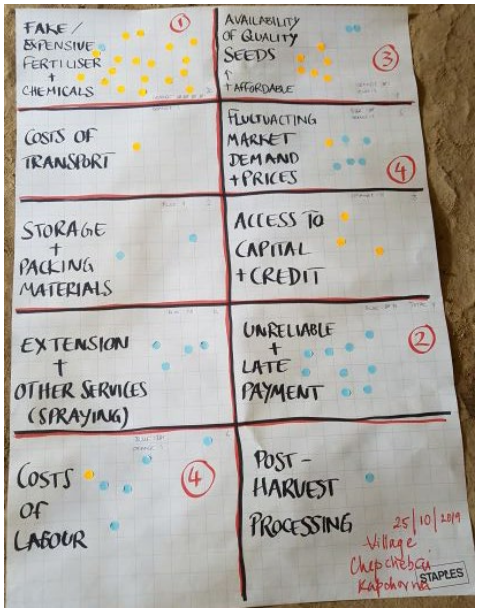
- **Access to agricultural services**. Extension officers are few. The government policy says that every sub-county should have one extension worker, but in reality this is not the case. There are maybe three workers per district, but they cannot reach all the farmers. The area is big, farms are scattered… Therefore farmers are not being trained and keep on using traditional farming methods. There are also few spraying service providers.
- **Labour**. There is a lack of skilled agricultural labourers. Farmers need help in their farms but many labourers don't really know what to do. All farmers need labourers for field peas (planting, weeding, spraying, harvesting), as this is a labour-intensive crop. For instance, the staking is laborious and requires skilled people. Otherwise the peas may not grow well (e.g. when distances between plants are too low). For nightshade, only two of the participating women use labourers. When planting you can call old ladies with the skills to plant nightshade
- **Pests and diseases**, especially aphids and early and late blight (for both nightshade and field peas)
- **Poor post-harvesting handling** leads to risk of product spoilage. However, some materials needed for post-harvest processing are also very expensive, e.g. tarpaulins for drying, sacks for packing… **Storage** can also be a problem, particularly for nightshade, as it spoils very quickly.
- Climate change and weather, erratic rainfall: too much or too little
- High costs of **fertiliser and inputs**. There is also a problem of fake inputs which have the same cost as real inputs. It is a big problem for all crops. Fake fertiliser is more common than fake seeds.
- **Seeds**. There is low uptake of improved seeds because they are expensive, not only the seeds themselves but also getting to the store (transport). Some agrodealers also don't have much knowledge about seeds, including how it is to be handled and how long it can be stocked (spoiled seeds). There is also wrong labelling of seeds and counterfeit seeds. At the same time, farm-saved seeds can be rotten and eaten up by weevils. Some farmers can sell back their seeds to the seed company, but this only happens with advanced farmers who have a partnership with the seed company to become a seed farmer
- **Transport**. High costs of transport due to poor roads. Transport from villages is a big problem, especially when roads are muddy. Farmers often need to transport their produce to the market. But transport is expensive and because of the poor shape of roads, transport gets even more expensive. The poor road conditions also reduce the quality of the produce
- Markets. **Low prices** due to **high supply**. Many farmers bring competition because they sell the same crop, so they willingly accept any price when there is oversupply. **Poor quality** reduces price. There are different reasons as to why produce might be of poor quality: poor seeds, weather, pests and diseases, post-harvest handling (e.g. drying), storage and transport. Different buyers offer different prices, so it is difficult to

know which prices are good. When wanting to sell at Kampala market, the language barrier makes it difficult to get a good price.

- **Access to capital**. Loans from commercial banks (e.g. post bank), savings groups and merry-go-round can be possible, but it depends on the amount of money (for larger sums you cannot go to savings groups or a merry-go-round), it depends on how much time you have (if you need money right away, you cannot wait until it is your turn at the merry-go-round) and how much security you have (if you have no land title, you cannot go to the bank).
- **Payment delays**, e.g. with neighbours, traders and schools (lack of seriousness by school buyers).

4.4 Prioritising problems

Each participant was given to vote for their top 2 challenges from the challenges listed above. The problem of **expensive and counterfeit inputs** (fertiliser and agrochemicals) was voted as the main challenge by the participants (total: 20; 1st: 19; 2nd: 1). This was followed by **unreliable and late payment** by different buyers, including schools and neighbours (total: 9; 1st: 0; 2nd: 9), and **availability/affordability of quality seeds** (total: 8; 1st: 6; 2nd: 2). The challenges of **costs of labour** and **fluctuating market demand and prices** came in fourth place (total: 6; 1st: 1; 2nd: 5).



4.5 Tentative solutions

	By ourselves	With outside help
High costs and availability of skilled labour	• You can talk to people and offer them food in addition to payment • They can do joint work, especially in a family • They can also work jointly in the community. This is what used to happen in the old days. • They can make merry-go-rounds to do garden work together in a joint effort • Reduce the costs of hiring by buying selective herbicides [We are already using most of it]	• Seek help from the government to support them in hiring labour for farms • Government should recruit more extension workers so that every village can get access to one extension worker for training

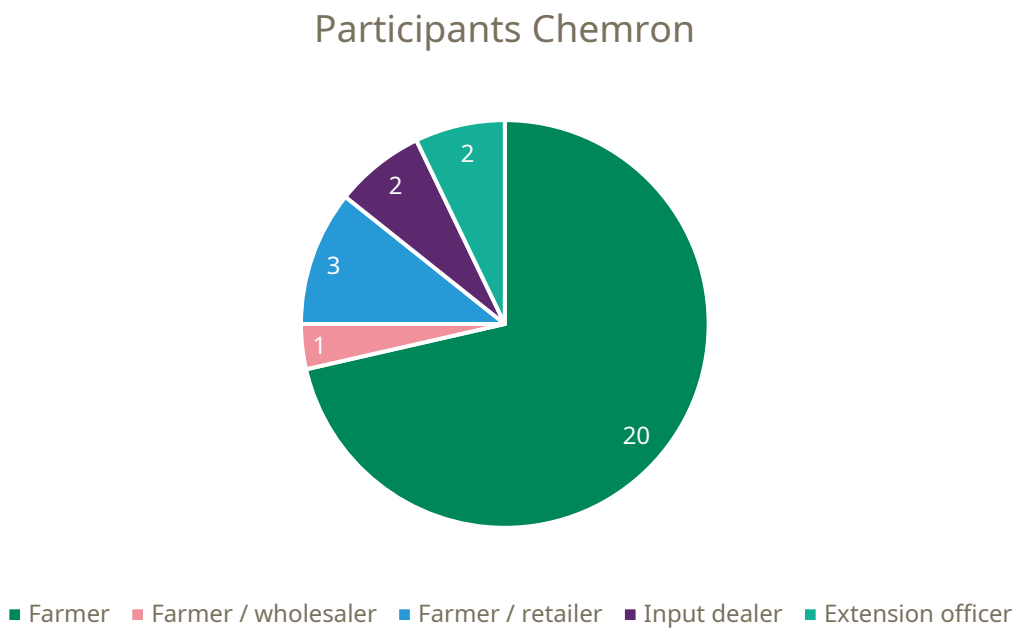
Fertiliser	• Apply organic manure • Make use of crop rotation, especially with beans as it can add nitrogen to the soil • Erosion control by planting in terraces • Use of land fallow	• Government should regulate fertiliser better to control quality • Banks should avail agricultural loans at low interest rates to the farmers • Researchers should come with fertiliser that does not destroy the soil • Traders selling fertiliser should be licensed by the government to operate legally • Government should establish a fertiliser factory to reduce the costs of fertiliser (fertiliser comes from Kenya and Tanzania)
Seeds	• Locally you can sort your seeds better to have quality seeds • Purchase certified seeds by looking for the ®. Seeds also have different colours: the green one is the best seed	• When seed is not of good quality, report to legal authorities, e.g. extension officers (report counterfeit seeds) • Use of quality home saved seeds • Buy from neighbour if you see that he has good seeds • Buy in bulk through groups to reduce price for individual farmers • More training from extension workers and other organisations so that farmers are better informed of the quality of seeds
Payment	• They can form savings groups, so if there is late payment, you can get a loan from the savings group • Need to get different buyers (faithful buyers) to reduce the gap of late payment • Look for outside markets (Mbale, Kampala)	• government should help with warehouses so that farmers can get quicker payment • seek for micro-finance organisation •
Markets	• To get good market, you need to do early planting so that you produce yields well or harvests early • Produce quality products	• Find markets outside of Uganda to export field peas • Build storage facilities to maintain quality of produce

- Good post-harvest handling practices
- Diversification of the economy: farmers should plant different things so that price differ

5 Value chain platform, Uganda II

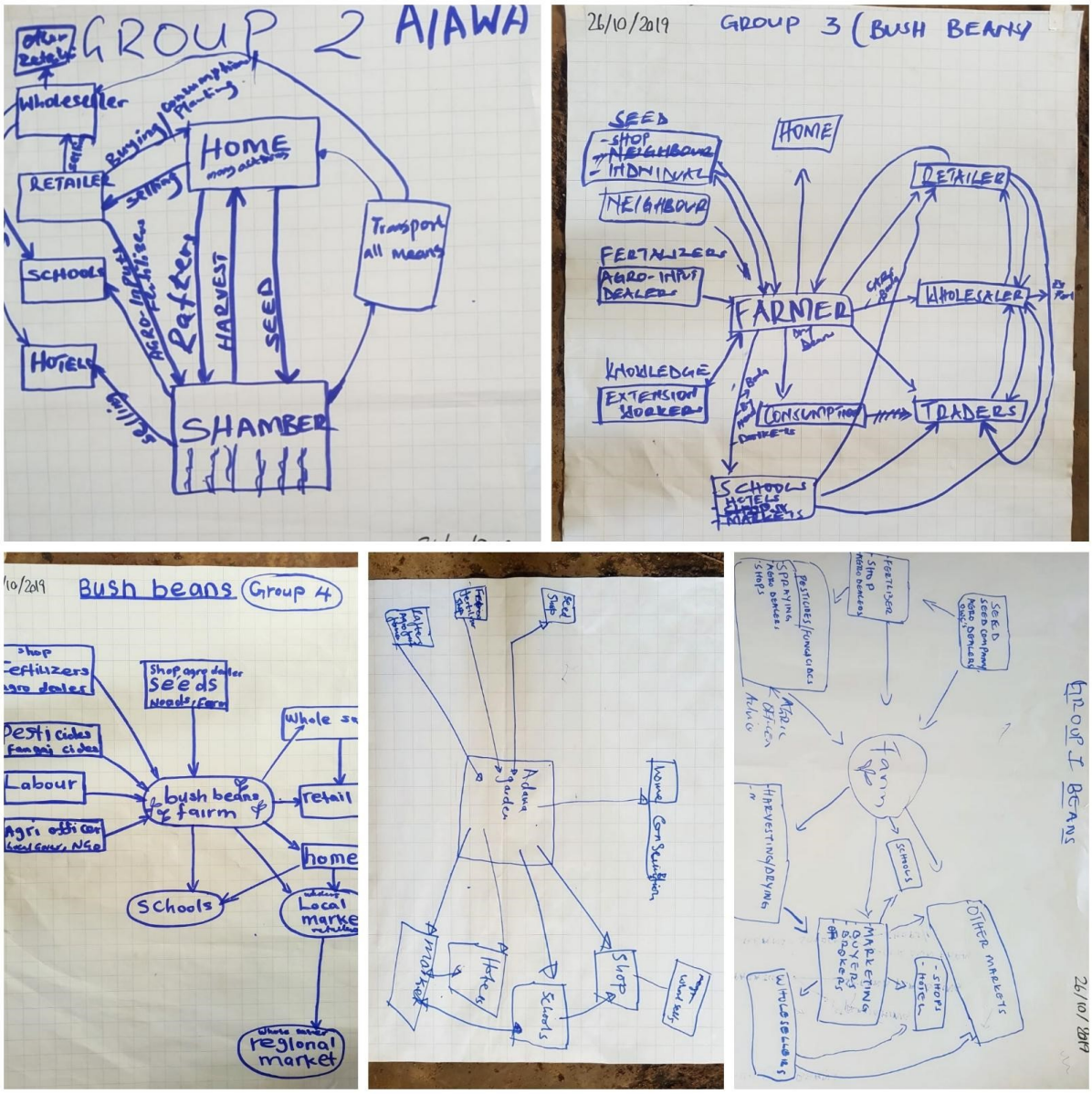
5.1 Introduction

The second VCP meeting in Uganda was held on 26 October 2019 in Chemron village with 28 participants. The following stakeholder categories were observed:



5.2 Mapping the value chains for bush beans and climbing beans

The VCP participants were asked to draw a 'rich picture' of the supply chain, showing different processes/stages climbing beans ('atawa') and bush beans went through from production to consumption. Two groups drew pictures of the climbing bean value chain and three groups worked on bush beans (see pictures below).



Salient points observed in the pictures:

- Markets are differentiated into ‘markets’ (physical places), wholesalers (those who buy and sell in bulk) and retailers (those who buy and sell small quantities).
- Seeds are accessed through own farm, neighbour, village shops and agrodealers. Sometimes farmers also receive seed from extension officers or NGOs
- Agro-inputs are included in all pictures, especially fertiliser but also pesticides.
- Labour is needed to help with staking (climbing beans) and weeding (both bean types).
- Extension officers are frequently mentioned as important sources of advice on planting, but a discussion with the group and the public extension officers present in the meeting revealed that the extension officer had not yet visited this community. He claimed that he was planning on doing so next year.
- Much of the bean harvest is consumed at home. The rest is sold.
- There is a high importance of institutional buyers, e.g. hotels (restaurants) and schools, for both bush beans and climbing beans.

- Several 'rounds' of selling and buying by different traders seem to be common, i.e. wholesalers sell to retailers, retailers sell to wholesalers, etc. It is possible that this 'inter-trading' involves different actors than wholesalers and retailers, but it appears that in Kupsabiny no other distinctions are made.

5.3 Identification of key problems

- Weather. Too much rain during planting: climbing beans will rot
- Soil: land is overcultivated, acidic and infertile; there are problems with blight
- Pests: attack crops
- Extension workers are too few (1 extension worker for 1000 farmers)
- Land: there is a shortage of land and hiring is expensive. This is aggravated by population growth. People require a lot of food for subsistence and cannot sell much anymore.
- Shortage of money
- Seed: farmers buy mixed varieties as seed from local shops. They buy the cheapest but the worst quality seed. Certified seeds from agro-dealers are expensive.
- Inputs: inputs are expensive and there is a risk of counterfeit inputs (which are as expensive as real inputs).
- Labour: this is especially needed for weeding of bean fields, but it is too expensive, especially when children are in school and farmers need to hire labourers from outside the community.
- Storage: farmers have a lack of storage space in their homes; they often rely on poor facilities. At the same time, farmers also may not follow the advice given and simply place produce on the floor; they don't keep seed in the proper manner (e.g. animals eat the seed; spoilage of own seed). Rats and weevils attack beans in storage (this also affects wholesalers and retailers who store beans). There is rotting of the produce.
- Prices: during harvest season, prices drop and especially wholesalers offer low prices. Buyers are also not honest. They try to cheat farmers because farmers have poor market information. Other buyers pay with significant delay. Different bean varieties fetch different prices.
- Poor produce quality: retailers get mixed beans or bags that are dirty with soil. Retailers then have to sell poor quality beans.
- Thieves: steal produce.
- Transport: transport costs are high (but varies during the year) due to poor roads and great distance to markets.

5.4 Prioritising problems

Each participant was given to vote for their top 2 challenges from the challenges listed above. This resulted in the identification of **access and affordability of quality seeds** as the main problem (total: 18; 1st: 13; 2nd: 5). This was followed closely by

low soil fertility (total: 17; 1st: 9; 2nd: 8) and **low market prices** (total: 10; 1st: 4; 2nd: 6). The remaining problems hardly received any votes.

5.5 Tentative solutions

	Locally	By ourselves & external help
Low soil fertility	• Digging trenches to stop runoff water • Put buffer crops in the garden to stop runoff water and add nutrients to the soil • Use mulching and organic manure • Crop rotation: plant different crops after each season • You can put ash to where the stems of your crops are to neutralize the soil pH (reduce acidity) • Terracing land during farming • Don't plough your garden down the slope, only across tranches • You can plant helper grass (napier grass) which also feeds your cows • Early planting: the plants will germinate better	• Soil testing (e.g. extension workers): farmers do not use which fertilizer to plant on their land because fertilisers differ • Lime from agro-dealers: our soils are very poor and we need lime to add fertility, but cannot provide for it ourselves • Better fertiliser from agro-dealers • Training from extension workers on how to make manure
Low market prices	• Taking product to the market directly instead of selling to middlemen (but farmers often sell to middlemen because of urgent problems requiring money)[2] • Selling collectively to get better prices • Sorting to sell quality beans to increase price • Store in dry place to avoid damage during rain	• Get information from other traders (friends) to be informed on prices, e.g. on regional markets (South Sudan) • Taking to big stores/ warehouses constructed by the government and other organisations and keep until prices are attractive
Access to affordable & quality seeds	• Do seed selection: sorting, drying and good storage	• Local government (with advice from seed specialists of Ministry of Agriculture) should

[2] According to participants, if farmers want to sell directly to the market instead of to the middlemen, the middlemen quickly run to the market to say, they are not selling to us anymore, please offer them the same low price.

	• Buy seeds from genuine dealers based on past experience (track the record) • Buy a sample and test for germination: when you plant 10 seeds in 1 hole, give conditions, then check germination: if 8 grow, so you have 80%. This is okay, 80% and above. (but it can be that when you go back for more seeds, all seeds are gone) • Cooking test: if you buy seed and cook, if it cooks quickly and well, then it is good seed • Do not (buy) over-dry seed – it will also not germinate. You can tell because the seeds crack • Farmers should produce their own seed of Nabe 16 (from University of Makerere). This is already happening in Mbale.	license all traders selling seeds to operate legally • Verify seeds with help of extension workers to avoid buying fake seeds (e.g. with tests) • Train seed dealers in seed preservation • Seek advice from agricultural officers like extension workers, NGOs or EaTSANE
Access to quality fertiliser and pesticides	• Farmers should produce locally made fertiliser (compost) • Formation of SACCOs to help save money so that when farmers need to plant, can buy the expensive, quality version rather than the cheap fertiliser which is not effective. • Better identification of fake fertiliser: if you hold it in your hand and there is some moisture, it is good fertiliser. If it is dry, it means it is fake.	• Government should restrict dealers on which inputs to sell • Government should inspect input dealers • Government should take action on input dealers who sell fake fertiliser and pesticides • Train agro input dealers on how to store fertiliser and pesticides • Network with other international organisations who deal with inputs for knowledge on quality fertiliser and pesticides (e.g. FAO, WFP, KIT) • Farmers should get loans from financial institutions to help buying quality inputs
Costs of transport	• Build storage to transport crops when it has stopped raining • Buy a donkey for transport, especially in hilly places	• Ask government to construct feeder roads to villages for improved accessibility • Ask government to buy 4 wheel drive vehicles

- Transport in groups (by foot) to share the burden

6 Reflections and way forward

6.1 Reflections on VCP processes

- **Participants**. The majority of participants were **farmers**. It was difficult to get a good representation of other value chain actors, especially processors, transporters and retailers.
- Many farmers play **dual roles**, e.g. farmer/trader, farmer/wholesaler. Yet, they seemed to identify only as farmers and shared problems from a farmer's perspective. Only when probed did they acknowledge their 'second' role and share some problems.
- Especially in Kenya, there seems to be **mistrust** between actors, e.g. between farmers and agro-vets. Part of the mistrust can also be rooted in social relations (e.g. lack of trust between neighbours, family feuds, etc.) which are unrelated to the VCP agenda but influence the process.
- **Value chain mapping**. There was strong tendency to group all market actors as 'market'. There was very little differentiation of different market actors, such as traders, brokers, wholesalers and retailers. This was especially the case in Kenya.
- In Kenya, intermediaries who connect sellers and buyers (based on receiving a commission by both actors) are referred to as *brokers*. In Uganda, they are called *middlemen*.
- In Uganda, there was a lot of confusion between wholesalers, traders and retailers. It appears that the term for trader and retailer is the same in Kupsabiny. The distinction in the local language is not made based on function in the value chain, but rather based on amount traded. 'Bulk' buying and selling is categorised as wholesaling, and 'small' buying and selling is categorised as trading/retailing.
- When asked about sources of seed, participants usually pointed to agro-vets/agro-dealers as the seller of seed. In reality, however, these are the smallest source of seed, as most farmers use farm-saved seed, complemented by seeds bought from neighbours and local markets (in case of shortfall, e.g. because of spoilage or home consumption).
- High costs of certified seed and mistrust in the quality of seeds supplied by agro-vets emerged as important reasons why farmers do not resort to agro-vets.
- **Problem analysis**. Participants tend to concentrate on immediate problems and prioritise those. Larger problems, e.g. storage, cannot be solved immediately and hence were not voted as priorities.
- **Solutions**. It is difficult for participants to propose solutions that are beyond their immediate environment.

6.2 Reflections on tentative solutions

The VCPs brought forward a variety of tentative solutions to different urgent problems affecting value chain actors. In moving forward, it will be critical to identify and focus on solutions that offer 'quick wins' to sustain actors' sense of motivation and build trust in the VCPs.

How to identify possible quick wins? Different criteria should be applied:

1) Relevance. Does the solution address a burning issue?

2) Feasibility. Is the solution technically and financially feasible?
3) Quick action. Can action be started immediately?
4) Results. Is it likely that results will be visible in a short amount of time?
5) Beneficiaries. Who / which groups are likely to benefit?
6) Scaling. Can the solution be used by others in the VCP?

A quick reflection on some of the tentative solutions identified by the VCP participants is offered.

Facilitating access to fertiliser and agrochemicals

- Quick wins for farmers may be possible with regard to using organic fertiliser (manure) and organic pesticides (e.g. with tithonia plant, see Kenya VCPs). This may require checking if it is a common practice and/or how many farmers actually use it. If they are using it, it might help to understand their experience of using it with significant pests. If not, a proper problem analysis as to why farmers are currently not (sufficiently or adequately) applying organic fertiliser and pesticides. Will be required. If possible, extension officers can also integrate the use of organic fertiliser and pesticides at demonstration plots.
- Another quick win option may lie in forming 'buying groups' and purchasing fertiliser and pesticides in bulk to lower the costs per individual. This may also offer quick wins for farmers, but also for supplying agro-vets. Since many farmers produce the same crops which require the same inputs at roughly the same time, group purchasing should be possible. Farmers should be aware that bulk buying is likely to require cash payment, as these 'buying groups' are not formalised and agro-vets will have little security that credit will be repaid, if several individuals are involved. An extension officer may need to be involved as neutral party to ensure that farmers order and receive good quality inputs at a fair price. A proper problem analysis is required to identify the barriers that current impede group purchasing.
- Organise training (as training of trainers) on the identification of fake inputs to ensure that value chain actors are more aware of which fake inputs are on the market and how to identify them.
- Establish regular meetings (e.g. bi-monthly) between extension agents, agro-vets and farmers to share information on farm issues (e.g. current pests and diseases) and identify best products to be used to address these issues. This can help to build trust between farmers and agro-vets, improve product offer by agro-vets and stimulate demand by farmers.

Facilitating access to credit

- Quick wins through merry-go-rounds and table banking. Both are micro-finance groups where members contribute a small sum of money on a regular basis, often every week (or month). With merry-go-rounds, each time money is collected the full sum is paid out to one of the members. The members take turns receiving the pay-out so that after one full cycle, every member of the group has had a turn. These groups basically act as saving groups within a set cycle. Table banking groups operate in a similar manner, with members contributing a small amount of money on a regular basis. At a set time, members are able to take a loan from the group and repay with low interest. VCPs can serve to strengthen existing merry-go-rounds or table banking groups, or they can support the development of new groups. In case of the latter,

some training will be required on basic financial literacy and group management. It might be worthwhile to find out who in the VCP are already involved in micro-finance activities, and if not, what are the reasons.

- There are also external sources for obtaining loans for agriculture which can be explored in the context of VCPs, e.g. the Agricultural Finance Corporation (AFC) in Kenya, a government owned financial institution that aims to provide loans to individuals or groups practicing agriculture. External assistance seems to be needed create linkages to the AFC, which is why this option is probably not a quick win, but rather an intermediate solution.

Access to markets

- Quick wins can potentially be achieved by establishing 'market survey or market intelligence teams' which have the task to find out about market demand and prices for specific crop varieties and share this with group members. Access to such market information can help farmers to get an understanding of market dynamics and help them in planting and selling based on what is demanded (e.g. crop variety; quality criteria). This can raise the prices offered and quantities purchased by buyers.
- An even more important decision could be to engage in collective marketing, i.e. farmers forming marketing groups to sell together, including aggregating produce and jointly negotiating with buyers. It could be the same group as in the 'buying groups' mentioned for inputs/fertiliser procurement above. Here farmers stand to benefit from higher prices and buyers can lower their transaction costs by dealing with a group of farmers instead of multiple individuals. Training may be needed for capacity building on collective marketing.
- Farmers are aware that higher quality produce fetches higher prices. Therefore, training on how to improve produce quality (without significant investments) can be helpful, e.g. good post-harvest handling practices, sorting practices, storage, etc.

Access to seeds

- Farmers can establish 'seed search teams' to help them access better quality seeds from neighbours and local markets. Such seed search teams would identify and document varieties that offer higher yields and/or are not affected by pests and diseases and share this information with group members.
- Farmers can also be trained on specific identification methods of 'good seeds'., e.g. germination tests, cooking tests, colour identification, etc.
- Quick wins may also be obtained by improving the quality of farm-saved seeds and training farmers on positive selection and seed preservation.
- Longer-term wins may be obtained by establishing linkages between seed companies and agro-vets to reduce prices for farmers and improve the produce stocked by agro-vets (more, better choice of products).

Transport

- Group marketing with arrangements to share hired transport to take produce to the market seems to offer quick wins.
- Borrow money from table banking to cover costs of transport or even leverage funds to buy a vehicle at a later stage might be possible- the latter might not be a quick win.

6.3 Way forward

- To gage the commitment from participants, there needs to be **more engagement in the earlier stages of the VCPs**. This serves to build trust and support the process.
- **It is not necessary to keep 30 members involved** per VCP. The launch of the VCPs was based on 'over-inviting' to facilitate inclusion and awareness among community members. Future meetings are likely to take place between a reduced number of participants (e.g. 15-20).
- **Older people (60+ years)** tend to be rather inactive during meetings. Therefore, they **will not be invited as active participants in the future**, as it is unlikely that they contribute to solutions or even test solutions by themselves. Young people will be more motivated to experiment. However, it is important, because of their social standing, to keep older people involved at specific moments in time, in an advisory role or as mobilisers.
- It is advisable to ensure a **mixture of farmers** based on different land holding sizes. It is also important to make sure that **farmers with dual roles** remain key participants in the VCPs, as their different roles will be critical in experimenting with solutions.
- It will be difficult to ensure that agro-dealers (agro-vets) remain active members in the VCPs unless they receive transport money (especially in Uganda). It is advisable to keep them involved in those solutions where they play an important role (access to seed and inputs).
- **Group dynamics**: gender, literacy, potentially age… all influence participation. Special efforts need to be made to have inclusive participation.
- Working on **trust**: which exercises to use? E.g.
    - Ask participants to place themselves in the position of another value chain actor and have them reflect on possible reasons for lack of trust, e.g. ask an agro-vet to think about why farmers may not trust agro-vets (in general)
- Introducing value chains: which instructions work best? The concept of 'value chains' has been difficult as farmers tend to not look beyond their farms. Possible ideas:
    - Introduce: "Who do I need as a farmer?"
    - Mapping different stages of farming (e.g. seed, transplanting, weeding, etc.) does not make a value chain.
- Need to **dive deeper into problem analysis**, e.g. by use of problem tree to dissect problems and arrive at feasible solutions.
- When selecting and testing solutions, **early successes and quick wins are important** to reinforce the value of the VCPs and motivate participants.
- Facilitator needs to have authority. Organisational affiliation strengthens this, but is not necessarily a prerequisite.
- Dealing with resource limitations in the VCPs: this should be mentioned upfront. If participants see value, they need to find resources to sustain the process. It is difficult to fund activities and meetings on a regular basis.