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Improved Livelihoods through sustainable intensification and diversification of market oriented crop-livestock systems in southern Malawi – FIDP II

3rd Innovation platform meeting

Report
Chiradzulu District
Khamtiti Lodge
23 October 2019

Introduction

This IP meeting is a follow up to take the process of chicken value chain development to a next level. What interventions would support the income and nutrition outcomes further?

Objectives

1. Link the dots: Identify and address critical barriers along chicken value chains, for their better functioning, based on experience and cost-efficiency by smallholder farmers and SMEs
2. Prepare for scale: Develop agri-food business models based on sound value chain analyses across the various chain segments, from production to consumption, targeting local markets and preferential trade with local government organizations
3. Agribusiness meets nutrition: Make nutrition for low income rural consumers part of value chain development
4. Setting the course: What needs to change in the wider institutional and policy context to support the value chains?

The meeting was held 23 October 2019 at Kamtiti lodge.

Participants included 12 farmers from Chiradzulu and Thyolo districts, (6 men, 6 women) from the CLIMM project as well as 4 representatives from the local care groups. Also present were private sector (7 traders), 2 representatives from NGOs and 18 government support services from crops, livestock, agri-business, trade and district nutrition committee.

Plenary: Recap CLIM project progress, implications for project implementation – Chamuka Thebulo

Steps

1. Ask everyone to write down own perceptions on the questions below, three cards for each
2. Facilitator and team collect cards and cluster them.
3. Add the key points and how they influence market and technology uptake to the diagram – at the begin of the afternoon session

Questions

- Where in this ideal scenario do you see that CLIMM has improved the situation?
  - smiley cards
- Where has the situation not yet been sufficiently improved, hindering your progress- tired face

Results

Achievements

- Production – most cards read that CLIM^2 provided crop seed and Kuroiler chickens. Others said that they were equipped with trainings that they can prepare their own feed and improve health through vaccination.
- Income: some improved income through chicken they received and sales of eggs.

- Market incentives: Those who received chicken or crops were linked to the markets.
- SME: Some received chickens as group, but to benefit more and produce big impacts, individual support is better than the group.

Where to improve

- Received seed late. This time seed should come early to benefit more.
- Farmers should be linked to credit institutions to improve production.
- Need training on value addition.
- Low prices of livestock which do not incentivizes farmers to increase production

Table 1. Achievements and areas for improvement as prioritized by IP meeting participants.

ACHIEVEMENTS	n	WHERE TO IMPROVE	n
Establishing farmer groups (crops and livestock)	3	Timely delivery of crop seed inputs to farmers	12
Assisting farmers to register as a company	1	A few people (from the farmer clubs) received chickens, asking for more support	3
Placement of livestock to farmer groups	14	Value addition in terms of promoting sale of dressed chickens	1
IP meetings	1	Diversify livestock, provide cocks, Kuroiler release, breeding stock, select breeders	3
Promoting the project to all relevant stakeholder	2	Not registering chicken farmers as a cooperative	1
Capacity building for chicken farmers	3	Capacity building in poultry feed formulation	1
Arranging review meetings in order to know the progress of the project.	1	Provide assistance in marketing	11
Assisting farmers with crop seed inputs	8	Equipment for poultry feed processing	1
Integration of crops and livestock	3	Provide poultry starter pack	
Placing hammer mills for feed processing	4	Getting feedback from farmers	1
Training on feed formulation	2	Capacity building for sustainability	2
Capacity building for self-sustenance	3	Link producers with buyers on egg production and drug suppliers	2
Improve income through egg production in Kuroiler chicken	7	Link farmers with money lending institutions	1
Improving productivity	8	Emphasize on improving income	1
Improved livelihood options, food and nutrition	3	Number of beneficiary groups scaled up	1
Consideration of SMEs	1	Involve care groups and engagement of nutrition programs	5
Feeding and health technologies	3	Coordination in implementation	1
Distribution of semen straws	1	Market platform for goats	1

Group 1. Income and nutrition outcomes – Sabine Homann-Kee Tui

Participants: Important to have farmer group (with and withour Kuroiler) and care group members

Objective: To illustrate current dietary patterns for different types of consumers (those who consume more and less eggs), what influences their dietary choices, how does the Kuroiler business model contribute to nutrition outcomes, and what would need to change for eggs to contribute more substantially to rural diets, indicators that inform about impacts of market oriented crop livestock integration on income and nutrition synergies or trade-offs.

Steps:

1. Distinguish farmers according to with and without Kuroiler, and care group membership – all along to find out if there are differences in farmer groups on delivery of nutrition and income outcomes, how we can incorporate that in our out reach
2. Has the production of chicken and eggs improved your diet? How
3. Has the income from chicken and egg sales improved your diet? How
4. Has your access to nutrition related information changed? How
5. Synergies income - nutrition:
    a. Will you chose to increase your income from chicken/eggs sales more than consuming more eggs, or will you consider consuming more eggs rather than increasing your income from eggs?
    b. Will increasing income from other sources lead you to consume more eggs?
6. How does crop livestock integration support income and nutrition outcomes – individual assessment of farmers perceptions on crop livestock linkages, nutrition and income outcomes

Results

Across the groups, farmers seem to have similar understanding to what makes a healthy diet. We meet these nutrition requirements in the course of a day. Sometimes we miss one or two food groups. Most missing are meat products. Eggs help to substitute meat, deliver the protein. Small fishes (bonya) are usually the common source of protein where one has cash/ money to buy.

Group: With Kuroiler chicken

- 30% Starch, sweet potatoe, cassava,
- 30% Vegetables – black jack
- 15% Beans – pigeon pea, cowpea,
- 15% Difficult to find, needs money, fish, grasshopper, mice
- 15% Fruits, banana, mango, papaya, orange
- 10% oil – sometimes difficult to find, groundnuts

Group: Farmer, without Kuroiler

- 50% Starch
- 20% Beans –

- 15% meat, fish, grasshopper, chicken
- 5% Oil – sometimes difficult to find
- 5% Fruits – seasonal
- 5% Vegetables – cultivate on their own

Group: CARE group

- 50% Starch, sweet potatoe, maize, green bananas
- 15% Vegetables – black jack, all indigenous
- 10% Legumes - pigeon pea, cowpea, beans
- 10% meat, eggs, grasshopper, fish
- 10% Oil – milk, cooking oil, groundnuts, avocado
- 5% Fruits – papaya, peach mango, guava, orange,

Has the production of chicken and eggs improved your diet? How?

Across groups farmers stated that chicken production improves diets, as eggs are being used most importantly to enrich the diet, added to porridge, vegetables, preferably to children, pregnant and lactating women. Village eggs taste better than commercial eggs.

- Farmers with Kuroiler: Chicken improves household foods as Kuroiler produce eggs that we use as household. We cook the eggs. It is impossible to keep the eggs only for sale, we also eat them. When we cook porridge, you have to add an egg. For children, pregnant and breast feeding women, for women to nourish their children. This is valid for all groups.
- Women without Kuroiler: Local eggs taste better; we use them at household level. When the chicken hatch, we also slaughter the chicken for the households.
- CARE group: When cooking porridge for children we add eggs. We advise each other how to prepare eggs as food for children. We add eggs to vegetables, when we give that to children we combine different food groups.

Has the income from chicken and egg sales improved your diet? How?

Selling chicken and eggs improves diets as farmers use the money to buy foods.

- Farmers with Kuroiler: Selling chicken and eggs helps the family, if we lack salt we sell eggs and buy salt. We also buy clothes and school uniforms.
- Farmers without Kuroiler: We might have a lot of chicken and eggs, and we can sell chicken and eggs, to buy ensima.
- CARE group: We might have a lot of chicken and eggs, and we can sell chicken and eggs, to buy cooking oil.

Has your access to nutrition related information changed? How?

All farmers confirmed that access to nutrition information has improved through the groups and cluster approach.

- Farmers with Kuroiler: Home-gardens started with DAP, now continued with AFIKEPO. They encourage to check for women who missed demonstrations.
- Farmers without Kuroiler: Information on nutrition s easily available because of the existence of care groups. Before we had ante-natal care at hospital, but did not gather. With coming up of DAP, which formed groups and clusters with leaders, where we meet more regularly, and we get more information than at the ante-natal care.

- CARE group: I have about 10 households that I reach out to inform about food and nutrition. As promotor we get counselling cards, which we distribute to individual households. Information includes how a pregnant woman can feed herself, the child.

Synergies income - nutrition:
People use eggs with first priority for nutrition, if they have excess of eggs they also sell. If they have more income they also prefer to buy more eggs, to support nutrition. This confirms eggs as cheapest source of protein, that can be locally produced by smallholder farmers. Village eggs also taste better than commercial eggs.

We use chicken more of human consumption than for sale. If chicken are few its better to slaughter for home consumption. If one has more chicken and eggs, he or she can start selling more.

- Farmers with Kuroiler: We prefer to leave 20 eggs at home, and sell 10, our of a tray.
- Farmers without Kuroiler: We agree, as local chickens produce small eggs. The number is not enough for the family.
- Care group: We agree.

If we have more income we prefer buying more eggs, for nutrition of the family.

How does crop livestock integration support income and nutrition outcomes – individual assessment of farmers perceptions on crop livestock linkages, nutrition and income outcomes?
Farmers generally saw many links between crop livestock integration and income and nutrition outcomes. The CARE group farmers seemed less sensitized on the benefits of improved feed biomass and quality on income and nutrition outcomes.

What is special about eggs:

- Farmers with Kuroiler: Chickens are easy access to fund and easy to prepare. Fish we can small portion for 300 MK, but we can get 3 eggs for the same price.
- Farmers without Kuroiler: When visitors come, its worth to give eggs.
- CARE group: Cost of buying is cheaper than buying meat or fish. We prefer eggs to fish, as easier to eat, no vomiting.

Different taste village eggs, commercial eggs. Village eggs taste better, because the chickens eat a variety of food. Layers only eat specified feed. Local eggs are fertilized by cocks.

Table 2a. Farmer perceived links between crop livestock integration and nutrition and income outcomes (n=9)

		Kuroiler farmer	Local chicken farmer	CARE group member
		Score Total=7	Score Total=7	Score Total=7
1	Expansion of legumes	6.6	6.3	6
2	Improved soil fertility	6.6	5.3	7
3	More biomass for feed	7	6	7
4	Better quality feed	6.6	6	6
5	More manure	6.3	6	6
6	Higher consumption of high value protein from crops	4.6	6	6
7	Higher consumption of high value protein from livestock	5	6.3	4
8	More income that can be reinvested in the farm	5	6.3	4

During the discussion on nutrition and income, participants were given a checklist where they compared the strength in relationship between crop and livestock integration factors. In Chiradzulu, Kuroiler farmers and CARE group members both saw strong linkage between the production of more legumes and improvement in soil fertility. In terms of livestock feeding, they saw a relationship between production of more legumes, improved soil fertility, more biomass for livestock feeding, better quality feed and more manure. Farmers understood that legumes contribute to the fixation of nitrogen in the soil which leads to more yields for their crops. They also understood that more biomass from legumes provided good quality feed for livestock which in return provided more quality manure for their crop fields which resulted in improved crop yields.

The relation between consumption and income was less strong. With increased productivity of legumes and livestock farmers can have both nutritious foods for their households and quality products for sale and use the income to purchase inputs for agricultural production. Farmers in Chiradzulu prioritise home consumption of their eggs than selling them.

Group 2. Value addition analyses - Charles Nyirenda

Participants: Important to have private sector representatives – plus farmers and extension

Facilitator appoints documenter, who also takes notes

Objective: Value addition and distribution of magin analyses, for the most relevant channels, considering quality, quantity and timing requirements, to determine cost effective interventions that support smallholder farmers to benefit in the value chain.

Steps:

1. Which channels would create favourable conditions for farmers and other actors (minimizing transaction costs, implying higher prices for farmers, lower prices for consumers)
    a. What are the barriers for farmers to participate in these particular channels?
2. What are the revenues and activities and how can they be costed, and what are the product prices at which they can be supplied to consumers? Making the product cheaper to consumers might encourage higher purchases…
3. What cooperation would be helpful to reduce those costs (aggregation, price negotiation upfront, e.g. farmers and consumers agree on prices better for them and organize themselves to transport costs) – Highlight that the consumer has the funds to keep the value chain functional
4. Visualize important costs and value added for the main channels, current and improved, in a diagram (cost/unit). Show by adding real figures.
5. Derive clear messages what channels and options are most cost effective, profitable and realistic, comparing farmer and consumer prices.
6. How does seasonality influence this?

Results

Egg value chain

Farmers sell at 2100 – 2400 MK per tray. Traders sell at 2400 to 2500 MK per tray. The retailers at 3000 MK per tray.

Farmer: Raising Kuroiler, our challenges are the inputs, mostly feed, losses from damaged eggs, and to find the traders that buy our products.

Trader: Smallholder farmers supply eggs to me; I sell in areas where commercial companies don't reach. I don't have many challenges, except damaged eggs in transit. There is a challenge in transport during the season when eggs are scarce (cold season, more energy for maintenance then egg production). During the time of high supply (dry season, more light hours encouraging production) some eggs might spoil as the supply is higher than the demand. At the times of high supply I only buy as many eggs that I can sell. During this time the price for eggs also drops. Profitability is higher during the time of less supply, as there are more buyers and we can increase the price of eggs.

There is need for cold chain and proper storage of eggs during times of high supply of eggs.

Which channel is more profitable for farmers? Farmers sell eggs by single eggs, not much difference in prices. It makes more sense for farmers to sell eggs at farm gate level. We have to factor in the losses, if supply of eggs is high.

Are there any big buyers that can absorb the eggs? In Thyolo we made deals with Makwasa center. In Chimtengo they sell to teachers privately, not to the school and arrangements are in pipeline with Thumbwe center traders.

Chicken value chain

Farmers sell at 1000 MK to 3000 MK per chicken. The trader sell from 1500 MK to 4500 MK per chicken. We did not look at input costs that the traders incur.

Farmer: chickens are sold at lower price during time of Newcastle Disease, as every-one is selling to get rid of the birds. During dry season we sell more chickens to buy food. Farmers to do gross margin analyses to understand what they are costing at.

Farmers, more often, sell chickens when they are faced by financial challenges. This sometimes make farmers accept what traders are willing to offer, and mostly such farmers do not do gross margins to establish the pricing. Farmers to do gross margin analyses to understand what they are costing at.

Broiler producer: For profitable chicken business, it's the market, capital, and drugs. Level of production (number of chickens produced per lot/time) also influences profitability.

Trader: Most chicken are sold from April to June, we pay at higher prices, during dry season months we buy at lower prices from farmers. Challenge is high losses when chickens die, especially during dry season. Other costs when they are selling chicken, when not all chickens are being sold.

Pigeon pea value chain

We evaluated this season. Farmers sold at 150 – 340 MK per kg, the traders from 400-600 MK per kg. Prices vary due to demand and supply.

Farmer: Pests attack pigeon peas at flowering stage. Price at the market is low. There is no much profit in pigeon peas, as no fixed price is put in place. Hence, we cannot afford the pesticides.

Farmers need to diversify as way to mitigate pests. Alternative plants can be used as pesticides. Pigeon pea, when prices are low, CLIMM promotes to use them as feed for

livestock, especially chickens. Fattening chickens at 4kg, wouldn't it be possible to sell at fair price?

Group 3. Marketing strategy – Chamuka Thebulo

Participants: Important to have farmers and private sector representatives, women and youth

Facilitator appoints documenter, who also takes notes

Objective: Marketing strategy for smallholder farmer inclusion in livestock-based agri-food value chains – Structured sales around most promising channels (include preferential agreements, feed and livestock outputs)

Steps:
1. Agree on a goal on chicken/eggs for income and nutrition – How many chicken/eggs to sell/eat by what time (SME and individual farmers, with and without Kuroiler)
2. What are the 2 most relevant channels for chicken and eggs each, by type of products and requirements, end market (rural/urban), and type of production system (individual farmer, SME, commercial/local inputs) – check with channels identified by gross value addition analyses group
   - Advantages
   - Disadvantages
3. What do farmers need to do to fulfil requirements in these channels (Volumes, quality, timing)
   - Market requirements (what size, what age, frequency of sales, others), social and quality standards
   - Coordination of production and marketing, relationships among farmers and with other actors, potential for value addition
   - Aggregation to reduce transport costs, mobilizing more farmers for volume, building relations among actors
   - Price mechanisms (time of payments, quality grades, deal with losses)
   - Financial support
4. Why are those items not being implemented? Discuss 3 major issues
5. What type of support services are required – who has capacity to provide that (vaccination, credit, insurance)
6. Mechanisms for accountability, feedback, gender inclusion

Results

Targets:
1. Eggs: trays for farmer, 10 trays for trader
2. Chickens: Farmer 20 chickens per month, traders 150 chicken per month

Channels for sale of chicken
- Farmer to traders, as local aggregator'

- Advantage: Farmers can get cash on the point, farmer save spending money on other items at the market
- Disadvantage: Market is unreliable, prices are low, as farmers don't know when traders come – trader disadvantage is that some chickens die during transport
- Solutions: Raising production, more fattened chickens, farmers to sell as group.
- Why not done yet: Insufficient capital, result of which farmers fail to raise production. Farmers don't sell as group, as there is lack of trust.
- Sources of capital: Village banks
- Accountability: Farmers to consult advisors on village savings. District extension and project staff to assist on extension messages.

- Farmer to restaurant
    - Advantage: prices may be relatively higher
    - Disadvantage: sometimes chickens are sold on pay forward

- Farmer to consumer
    - Advantage: prices may be relatively higher
    - Disadvantage: volumes of sale may be low, usually final consumer buys one chicken at a time; sometimes payments are made in bits.

Channels for sale of eggs: the issues are the same.

- Farmers need to fulfil market requirements
- Market requirements :
    - Volumes: increase production through growing of crops that help them to make their own feed.
    - Quality: Making their own quality feed that meet market standard, vaccine and drug in time
    - Timing: increase productivity of chicken that will result frequency sales at desirable age and time.
- Coordination of production and marketing, relationships among farmers and with other actors, potential for value addition
    - Formulation of cooperatives or poultry farmer groups to enable them to have access of credit and increase production
    - Have negotiation power through groups that will help to sale chicken at high prices
    - Access to credit; help them to expand their business as restaurant or schools to make sausages or sells of cooked chicken meat.
- Aggregation to reduce transport costs, mobilizing more farmers for volume, building relations among actors
    - Through formulation of poultry groups or cooperatives
- Price mechanisms (time of payments, quality grades, deal with losses)
    - Through groups; supplying of chicken to hotels or big restaurant with high quality chicken to get high prices.
    - Through groups; vehicles can be used to sell chicken in urban to avoid losing them during transit like using bicycles.

- Financial support
    - Negotiation with credit institutions to support us with loan with lowest interest.

Major reasons why these priorities are not being implemented:

- Lack of cooperation among farmers through farmer groups or clubs, which would help to have stronger negotiation power with buyers.
- Lack of opportunities to get loan from credit institutions to support chicken production or boost up capital for chicken or egg business.
- Lack of support in provision of vaccine or drugs that resulted low volume of sales.

Support services required:

- Government/ other stakeholders support on vaccine and drug
- Banks or credit institution(FINCA) support on credit provision towards livestock

Group 4. Policy analyses – Thabani Dube

Participants: Important to private sector and extension

Objective: Policy gaps (constraining vs facilitating policies) and power structures that need to be addressed to support smallholder farmer based chicken and egg value chains, income and nutrition outcomes

Steps:

1. Do you see unfair competition (favouring large scale commercial), exclusion (allocation of funds to other commodities) of smallholder farmers from chicken and egg value chains ?
    a. If yes, explain.
2. To increase farmers inclusion and competitiveness in egg/poultry value chains, list what policies / rules in terms of production, food safety, storage and processing, transport, marketing and gender inclusion are
    a. enabling,
    b. barriers,
    c. existing but not implemented
    d. missing
3. What policy measures need to be in place to change towards enhancing smallholder inclusion and competitiveness?
    a. improved market access
    b. improved value addition/competitiveness
4. What activities do you need to engage in to influence those policy changes and what capacity do you require to implement that?
5. What levels to engage to address that, how?

Results

Do you see unfair competition (favoring large scale commercial), exclusion (allocation of funds to other commodities) of smallholder farmers from chicken and egg value chains?

The growth in the poultry sector has by and large been a private sector lead, by commercial large scale producers. This is attributed to a deliberate policy by government that created favourable conditions for commercial and semi-commercial producers to increase availability of poultry and poultry products in the country. This policy thrust is contained in the Livestock Development Policy of Malawi. Large scale producers are organised and able to lobby for favourable policies.

- The growth in the poultry sector is liberalized and private-sector led, predominantly by large-scale commercial producers. Commercial farmers are more organized, more potential in transporting, has more capital to pay for labor and medicine. Power to buy large quantities of feed.
- The reach of large-scale producers is across both urban and rural areas. They supply poultry products at competitive prices because they enjoy economies of scale in their production systems. Most of the commercial broiler and egg producers operate integrated systems, whereby they produce own feed.
- Commercial producers produce broiler chickens for meat while smallholder farmers mainly produce local/village chickens.
- Village chickens tend to attract higher prices compared to broilers. The market for village chickens can be considered as a niche market
- In terms of size, the market for village chicken is small relative to the broiler or layer egg market.
- The potential for the village chicken is high, given the growing demand for the village chicken in food outlets both in local and urban markets.
- Despite the potential for village chicken, no specific government support programmes could be identified to make village chicken competitive. Support for village chicken could also be tied nutrition outcomes.
- As for eggs, commercial producers dominate the market, because smallholder farmers tend to keep eggs for breeding purposes.
- Commercial producers provide the volumes, sell eggs at cheap prices and deliver to village markets where rural consumers can access them. These eggs are large in size compared to what smallholder farmers are able to produce.
- For smallholder village chicken to be competitive, direct support in the form of technical support, support for local level organisation, improved breeds, access to affordable feed and public sector vaccination programmes for major poultry diseases of economic importance such as Newcastle will be necessary.
- Focusing on the village chicken for smallholder farmers is strategic in the sense that they possess a comparative advantage and are not in competition with commercial poultry producers.

To increase farmers' inclusion and competitiveness in egg/poultry value chains, list what policies / rules in terms of production, food safety, storage and processing, transport, marketing and gender inclusion are

a. enabling,
b. barriers,
c. existing but not implemented
d. missing

- There are no specific policies that could be said to directly impinge smallholder participation in the poultry value chain. Neither are there policies that deliberately seek to support smallholder participation in the value chain.
- Policies focus on production, yet there is lack of infrastructure, result of which these policies are not being implemented. Production enabling policies include: Availability of livestock extension and animal health specialists, vet supplies support to farmer groups to enhance production, breeding stock support by government and NGO initiatives, programs and subsidized Black Australorp chicks for small holder farmers. Gender policy support women to participate in livestock production.
- Food safety regulations are in place, coupled with lack of capacity of smallholder farmers to process and maintain a cold chain, limit their ability to participate in urban supermarkets which are dominated by large scale producers. Commercial farmers are inspected by authorities from department of animal health and livestock development for health procedures and use of chemicals/ growth hormones in production. This is done in conjunction with health specialists from Ministry of Health along Malawi Bureau of Standards.
- The liberal policy environment has supported the growth of large scale commercial producers and whether intended or not, relegated smallholder farmers to a small fraction of the market.
- The smallholder sector does not have the requisite infrastructure to participate in the value chain activities for value addition/processing and transporting of chickens and eggs to the market place.
- Factors that hinder smallholder farmers to enter the market
    - Farmers don't have capacity to produce more and process their livestock (chickens) to meet market demand, dressing/cutting into pieces and proper packaging, cold chain facilities and other facilities
    - High cost of production due to high prices of feed, vaccines/drugs and other equipment.
    - Subsidies for crops, helps crop farmers; there is however no subsidies in livestock which makes it difficult to access livestock feed.
    - Lack of well stipulated poultry marketing policy and non-implementation of value addition policy objective at small holder level due to lack of infrastructure and technical support.
- There are interventions though limited in scope, which include support extended to farmer groups in the form of subsidised vet supplies and breeding stock. There is also involvement of the Government/NGO sector to build capacity of smallholder farmers to increase their levels of poultry by providing subsidized Black Australorp chicks for small holder farmers.
- Other interventions that exist in the poultry sector benefit mainly the large scale producers, including the state funded vaccine production for poultry and government programmes that produce a dual purpose poultry breed.

What policy measures need to be in place to change towards enhancing smallholder inclusion and competitiveness?

a. improved market access
b. improved value addition/competitiveness

Some actions do not need policy changes or creating a new environment for smallholder farmers to increase income from their poultry production. It will seem there is good demand for the local chicken already. Farmers are currently not well organized to enjoy full benefits of the local chicken market. The incentives from the market, once realized have the potential to result in increased investment in poultry production. Farmers will most likely invest in reducing mortality rates through procuring vaccines and other veterinary drugs once, they access tangible benefits from the market.

- The priority area identified that needs to be attended to first is supporting farmers to work in organised groups. Organised groups make it easy for farmers to access services and for them to consistently participate in both the chicken and egg markets.
- The following a measures that were identified as needing to be place to enhance market share for the smallholder farmers;
    - Incentives for farmers to work in groups/ cooperatives. These could be in the form of access to subsidised feed and vaccine costs, transport, preferential market access to state institutions etc
    - Feed constitute the largest single cost item in poultry production. In addition to subsidies, other measures such as promoting own feed production should be explored.
    - Enablers of value addition such as electricity will need to be provided at affordable costs to farmers in their local areas.
    - Expand demand for village chickens and eggs through mass media campaigns highlighting their nutritional value.
    - Support small-scale poultry producers to participate in policy dialogues to shed more light to areas of interest. The current platforms tend to support crop producers.

What activities do you need to engage in to influence those policy changes and what capacity do you require to implement that?

- Disseminate information back to people. Research findings of nutritional value of local eggs and chickens need to be publicized among the shareholders/stakeholders and consumers so that people make informed decision when deciding what and where to buy.
- Involving key small holder farmers/ cooperative representatives in consultative and policy meetings for their inputs and awareness.

What levels to engage to address that, how?

There is need for platforms where farmers can voice out -most platforms talk about fertilizer and crops, but not about livestock. Hence a need to have platforms where small holder chicken and egg producers voice out their challenges, opportunities and capacity/ limits.

- Policy issues can be discussed at Extension Planning Area (EPA) level, then District/Council level, Agriculture Development Division (ADD) Level.
- From there the information gathered is taken department headquarter (director level), then to Ministry, to Office of President and Cabinet (OPC), then the matter is taken to parliament after a series of consultations.

Way forward

ABO

- Next time invite institutions who can take large quantities.
- Not just hold discussion at the IP but visit these actors to follow up on market linkages

Mikolongwe procurement officer

- Distributed Kuroiler, for sustainability, do we increase stock for breeding? Waiting for government approval as this is research.

Woman farmer

- We have challenges to have the milling sieves exchanged to process our own feed.

Restaurant women owner

- Working at busy place, do not get enough chickens, readily available market.

DADO representative

- Appreciates the meeting. Learned a lot. Main concern is market. This meeting opens eyes to do with the issues of marketing. Encourages farmers to provide quality and quantity, through high productivity. As we push for better markets, we need to do better in future, even after project phases out. Participants to use what they learned, to move forward.

Synthesis and way forward

Key messages for chicken and eggs

- All participants were aware of the nutritional benefits from egg consumption; chicken and eggs are commonly available throughout communities. Farmers rather bought cheaper commercial eggs than consuming their own eggs. They however preferred the taste of village eggs; they attributed better taste of the village eggs to more diverse and healthier feed of the scavenging chicken.
- Newcastle Disease is a major threat to income and nutrition from chicken; farmers respond by selling off their stocks in mitigation of the disease outbreak. As a result, prices for chicken plummet from June to December. To rebuild their stocks, farmers use the eggs from village chickens for reproduction; consumption and sale is low.
- Introduction of the Kuroiler brings in fast growing bird that allows farmers to take advantage of the demand for village chicken, and also sell eggs – while doing well under local management conditions. Some plan to sell the meat and buy cheaper broiler meat, save some money and buy chicks.
- Experience from selling the cocks has shown that for farmers, the dual-purpose nature is appealing. For consumers the size of the Kuroiler is also appealing. The Kuroiler per kg meat it is less than village chicken (1.5kg village chicken sold at 2,500 MK, Kuroiler at 4kg at 4,500 MK), “you get more for less”. Kuroiler eggs are being said tastier and sold at the same price as commercial eggs.
- Once Kuroiler is released, there is need to make the chicks locally available. This will enable farmers to venture into the business.

- We need deliberate effort to make the eggs and meat available to ear-marked consumers. We know that size is an advantage, we need confidence on taste.

Entry points for the project:

Nutrition

Nutritional benefits of egg consumption are well covered; confirm with care groups that they promote eggs and meat in their diets. There seems a niche to promote Kurioler eggs and meat for their better taste and quality. The taste of Kurioler eggs and meat has to be verified.

- Venture into cooking demonstrations, blind tasting. Involve care groups and ADD livestock people, to generate evidence from the ground. Assess preferences for eggs and chicken for Kuroiler vs village chicken and Broiler. Team on the ground to facilitate the process, with livestock personal. Involve Dr Nkhulungo, Blantryre ADD.

Value addition and marketing strategy

Marketing

- Engage in new market channels for eggs and meat. Buyers confirm supply gap for village chicken and eggs – potential for farmers to penetrate the local market. Among consumers, the youth are highest in numbers, they like quick foods. Chicken and eggs go well, also in urban areas.
    - The Kuroiler egg competes with industrial egg, in size. Some buyers buy now eggs from Chimtengo, as the size is acceptable. This characteristic is an opportunity for smallholder to participate in the egg value chain. Sell at same price as commercial (100 MK/egg), while also reducing transport costs. Village eggs fill a gap, as traders travel long distance to get eggs. Local provision of eggs will make eggs cheaper available for consumers.
    - Demand for Kuroiler meat is also there. Representatives asked for the chicken. Prison representative also asked for Kuroiler meat. Kuroiler taste is similar to local chicken. They also reduce feed costs, as growing on locally produced feed. Kuroiler under local health management had high survival rate, <5%. Markets are within the local areas.
    - Make the demand visible, using VCA data. Gross margins should help us to come up with a price that helps us to win more customers. Illustrate GM for farmers with kurioler, village chicken, using local and commercial feed.
    - Multiple lines:
        - Farmers to use the district potential, e.g. Namagazi, to have a shop, for community to buy chicken and eggs.
        - Promote uptake of village chickens and eggs also through influential individuals. Farmers to coordinate and aggregate, sell directly to large organizations, for higher prices. Where distance is far, farmers to work through traders, sell through better negotiation to the organization.

- SME and financial mechanisms
    - Feed SMEs are priority, they need to get financial support. The feed selling traders need capacity, farmers will need more feed. Traders were at the meeting that seek for links with the project. There is need to enhance awareness on the importance of feed, through gross margin analyses.

- Vaccine SME: A new model would be to engage chicken traders in supply of vaccines at critical times of the year. Confirm that they have supply gaps, link them with AVOS, track their outreach, beyond the project districts. This way 1 AVO could supply 10 traders, and the traders each 10 farmers, who again reach out further. This would reduce mortality, also increase the price per chicken (as farmers sell seasonally the chicken to prevent mortality), farmers after selling harvest in April May can have income to buy vaccines. Some models on successful vaccination exist. Arrange for farmer exchange visits between farmers; monitor as experiment.

Policy issues

- At the level of local structures, the authorities have to discuss Newcastle vaccination as the same topic as farm input subsidies. This would help to commercialize the chicken sector, not the individual farmers.
- Government could then take over vaccination programs for highly contagious diseases. This implies to establish appropriate infrastructure for cold chain in rural areas – vaccines and meat and eggs
- As project use DECC, DC, Councilor to raise alertness on chickens. Bring the chickens to the meeting. Invite ABOs.
- The project philosophy is in line with the Ministry of Agriculture's extension policy, demand driven innovation. We identify what communities are looking for and assist. Assistance based on capacity and preference.

Table 3. Summary of key issues that CLIM^2 should be taking up.

Nutrition	Value addition / market linkages	Policy
Verify the taste of Kuroiler eggs and meat through blind tasting (village chicken, kuroiler, broiler)	Outreach for Kuroiler at DAEC, DEC, DC councillor – brief about chicken and market links, seek support, for higher level dialogue	Inclusive regulations and quality control to ensure smallholder farmers benefit from increasing demand at domestic markets
Promote messages on Kuroiler eggs and meat for nutrition through DEC, DAEC, DNCC, care groups	Inventory and GMA on local market channels that show interest to buy chicken and eggs from farmers / SMEs	Supporting farmer self-organization, access to rural infrastructure, e.g. cold chain
	Farmer market exploration, CLIM and other potential farmer groups, synergies to increase the supply	Government role in controlling contagious diseases
	Prototyping models for SMEs (feed, health), working with gvt-traders-farmer/care groups	Feedback on the release of the Kuroiler
	Continue mentoring SMEs and farmers on chicken production and business model	

Annex 1. Program

23.10.2019
Chiradzulu IP- meeting

Time	Action items	Lead
9.00 - 9.30	Official opening Opening and agenda	District official Sabine Homann-Kee Tui
9.30 – 10.00	Recap on CLIM project progress, implications for project implementation	Chamuka Thebulo Claire Mwamadi
10.00-10.30	Health break	
10.30- 13.00	Group work – with mixed disciplines 1. Marketing strategy 2. Value chain analyses 3. Income and nutrition outcomes 4. Policy analyses	Chamuka Thebulo Charles Nyirenda Sabine Homann-Kee Tui Thabani Dube
13.00 -14.00	Lunch	
14.00 - 16.00	Plenary – 30 minutes per group 1. Gap filling 2. Next steps: networking, operations	Chamuka Thebulo Claire Mwamdi
16.00	Closure of the meeting Works of thanks	District official

Annex 2. Participants list Third IP meeting in Chiradzulu, Chicken value chain

No	Name	Gender	Organization	Telephone	Email
1	Joseph Kalaveti	M	Agriculture	0888186755	jkkalaveti@gmail.com
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5	Edina Thumba	F	Mtendere club-Thyolo	0999816150	-
6	Ruth Gomiwa	F	Chimphuno club-Thyolo	-	-
7	Thabani Dube	M	ICRISAT-Zimbabwe	+263 7725 74397	T.dube@cgiar.org
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9	Esther Muwa Silika	F	Namitambo restaurant	0884 625 008	-
10	Lameck Chalimba	M	Milepa trader	0884 344 622	-
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13	Chamuka Thebulo	M	CLIM^2 project	0995 797 838	C.Thebulo@cgiar.org
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18	Charles Nyirenda	M	Chiradzulu DAO	0999231 843	Nyirendacf87@gmail.com
19	Aleck Magombo	M	Thyolo DAO	0883 513 791	-
20	Giveson Makoloni	M	Thyolo Masambanjati	088 22 8899 7	-
21	Kingsley Masinga	M	Thyolo Masambanjati	0999115083	masingakingsley@gmail.com
22	Emmanuel Maganga	M	Mikolongwe	0883 510 863	magangamanuel@gmail.com
23	Blessings Malimba	M	Chiradzulu agriculture	0885 516 282	-
24	Samuel Salima	M	Zaone club	0881 843 898	-
25	Dolica Jailosi	F	Zaone club	0886 681 718	-
26	Mable Khama	F	Tiphunzitsane club	0888 784 841	
27	Reginald Nankhumwa	M	Chiradzulu DC	0888372 159	nankhumwareginald@yahoo.com
28	Trevor Marrah	M	Chiradzulu	0999 600 355	-
29	Frank Matchado	M	CLIMM	0884 571 846	matchadofrank@yahoo.com
30	Grant Mbalu	M	Thyolo DAO	088427084	mbalu@gmail.com
31	Ritchard Muheliwa	M	Thyolo prison	0999247 284	muhaliwa@yahoo.com
32	Ida Juma	F	Thyolo trader	0998 414 8318	-
33	Naomi Phiri	F		099900143	-
34	Nthutsani Banda	F	Farmer	0888823479	-
35	John Phiri	M	Thyolo farmer	-	-
36	Grace David	F	Thyolo trader	09900802040	-
37	Jimmy Mtoto	M	Thyolo prison	0884328950	-
38	James Thulama	M	Trader	0884330308	-

39	Gladys Ndawo	F	Farmer	0882 628 086	-
40	James Banda	M	Youth farmer	0997 847 318	-
41	Rhoda Chikozera	F	Chair(farmer group)	0998 685283	-
42	Anne Mambulu	F	Promoter (nutrition)	0993 198 524	-
43	Aida Khwiliyo	F	Business	0880 672536	-
44	Kenneth Biliat	M		0999 651615	-
45	James Mulinde	M	Farmer	0885320016	
46	Florence Chitedze	F	Farmer	0995510769	-
47	Mike Chidawati	M	Farmer	0880672536	-
48	Jailosi Malunga	M	Farmer	0991469164	-
49	Esther Manong'a	F	Farmer	0884817862	-
50	Chimwemwe Zandihle Lungu	F	United Purpose	0884 760 581	lunguchim@gmail.com
51	Emily Kaliwo	F	Mana Reporter	0995 850 344	-
52	Sabine Homman Kee Tui	F	ICRISAT		

Annex 3. Form to facilitate market linkages

List potential buyers in the district

Name and address of the buyers

1. Introduce CLIM project supporting chicken and egg production, in collaboration with the government of Malawi
2. Do you see a gap in the volumes and quality of chicken/egg products you require?
3. Who are your current main suppliers?
4. What are the main challenges that you face buying chicken/eggs from them?
5. What volumes / time of chicken/eggs would you be interested to buy?
6. What are your quality requirements?
7. Are there seasonal differences throughout the year, in terms of the volumes you require and the prices you are willing to pay?
8. What is your preferred delivery mode?
9. What are your payment modalities?
10. What are your terms of trade? Contract, bidding, others
11. What challenges do you face with smallholder farmers as suppliers?
12. Are you willing to engage in a buying relation with smallholder farmers?
13. If not, why not?