Malawi Livestock for Resilience End of Project Evaluation Report

Submitted by;

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[redacted]

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Finally, the views contained herein are those of IFESOR and do not necessarily represent those of Land O'Lakes and/or USAID.

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ACRONYMS AND ABBREVIATIONS

AEDC	Agriculture Extension Development Coordinator
AEDO	Agriculture Extension Development Officer
APES	Agricultural Production Estimate Survey
ASWAp	Agricultural Sector-Wide Approach
CLWs	Community Livestock Workers
CRS	Catholic Relief Services
EPAs	Extension Planning Areas
FGDs	Focus Group Discussions
FHH	Female-Headed Households
IfESOR	Institute for Economic and Social Research
IPCC	Intergovernmental Panel for Climate Change
KIIs	Key Informant Interviews
L4R	Livestock for Resilience
LLFs	Livestock Lead Farmers
LOL	Land O'Lakes
LUANAR	Lilongwe University of Agriculture and Natural Resources
MGDS II	Malawi Growth and Development Strategy II
MHH	Male-Headed Households
MWK	Malawi Kwacha
OFDA	Office of Foreign Disaster Assistance
PAC	Project Advisory Committee
PMEP	Performance Monitoring and Evaluation Plan
PSP	Private Service Provider
RFP	Request for Proposals
SPSS	Statistical Package for Social Scientists
TA	Traditional Authority
ToT	Training of Trainers
USAID	United State Agency for International Development
VAs	Veterinary Assistants
VDCs	Village Development Committees
WALA	Wellness, Agriculture and Life Advancement

Introduction

In 2014, Land O'Lakes' International Development Division (IDD) received a $1,999,970 grant from the United States Agency for International Development (USAID) through their Office of Foreign Disaster Assistance (OFDA) to implement a 23-month project in Central Malawi called Malawi Livestock for Resilience (L4R). The L4R project was implemented in the two disaster prone districts of Dowa and Ntchisi, directly targeting 6,000 chicken and goat farmer households, 30,000 individuals in total, by building their resilience to enable them withstand climatic and economic shocks through diversified livelihoods and improved financial literacy.

The L4R project, implemented in ten Village Development Committees (VDCs) in the districts, endeavoured to support goat and chicken producers to: expand and maintain their livestock asset base; improve access to animal health services; and improve their ability to plan save and mitigate risks. In doing this, the project facilitated formation of 300 producer groups from which 150 Livestock Lead Farmers (LLF) and 150 Village Agents (VA) were selected and intensively trained in livestock production and savings and lending, respectively. The LLFs, backstopped by L4R extension staff, in turn trained group members on improved animal husbandry techniques through a training of trainers approach. About a third of these households also received livestock vouchers to obtain locally available goats and chicken. LLFs were also trained in animal health provision to improve the access to animal health services of producer group members and other farmers in the area. The VAs trained producer group households in household economics and formed 300 village savings and loans associations (VSLAs).

Following the L4R baseline and midline studies, an independent endline was commissioned to establish the appropriateness/relevance of the program approach, effectiveness of the implementation in achieving the expected results, efficiency and sustainability of the program activities and outcomes.

Methodology

The evaluation design adopted both quantitative and qualitative research methods. It sampled 150 chicken and goat producer groups out of 300 producer groups. Then, a structured household survey was conducted with 514 project participants, randomly selected from the sampled producer groups. The 300 producer groups had a total of 7,277 goat and chicken producer group members spread across Dowa and Ntchisi in a ratio of 60:40, a proportion equally reflected in the sample size for the groups and producer group members. For comparison, a structured survey using the same tool was administered to 202 individuals who did not participate in the project; the project non-participants were randomly selected from different Extension Planning Areas in the same districts. The criteria used to identify the non-participants were the same as that which the L4R project used for identifying beneficiaries. The study ensured triangulation of the data for enhancing external validity, generalization and reliability by conducting 20 focus group discussions and over 30 key informant interviews with key stakeholders. Generally, the analysis relied on comparing the results with the baseline findings and the comparison groups in order to objectively judge its performance. However, since the baseline was done before project participants were identified, it was conducted with the general population which did not necessarily fit the criteria for beneficiary selection. Therefore, the differences in the sample composition should be taken into account when interpreting the results.

Key findings

The L4R final evaluation study established the following key findings;

- *There is a significant increase in the percentage of L4R participant households that have viable flock/herd size and that have increased livestock asset base over baseline.* About 37% of households had viable goat herd size at endline, which was much higher than the 15% reported at baseline but slightly lower than the 40% targeted in the project life span. About 75% of the sampled households had viable chicken flock size at endline, an increase over the 69% at baseline but lower than the 90% targeted in the project life span. Average livestock asset base per participant household increased by 70% (MWK105, 594 /$150.85 at endline versus MWK61, 933/$110.2 at baseline). Furthermore, 77.2% of the participant households (76.5% MHH and 78.4% FHH) experienced increase in livestock asset base over the project period. This percentage is a significant improvement from the 43% (48%MHH and 38%) reported at midline evaluation and ultimately slightly above the 75% targeted in the project.
- *The endline evaluation reveals a sharp increase in the percentage of households that are practicing improved animal husbandry and feed techniques*. About 72% (71.6%MHH and 74.1% FHH) of the participants applied at least 3 of the 5 practices, slightly lower than the 75% targeted in the project. Furthermore, the percentage is well above the baseline value (4%) and the comparison respondents (24.8%). The five practices under mention are as follows: improved housing; improved breeding; supplementary feeding; animal health and recording keeping. More households are practicing raised khola (65% chicken and 63.3% goats) than the baseline (7.7% and 21.5% respectively). More participants are providing supplementary feeding to their livestock 75% at endline than the baseline (48.7% chicken and 21.9% goats) and comparison (70.5% chicken and 63.5% goats). About 30% of the chicken producer participants practiced chick care, higher compared with midterm review (22.4%) and comparison (none). In addition, more households (12%) kept records at endline than at baseline (6.7%) and comparison (3%).
- *Enhanced access to animal health services and better animal husbandry practices led to huge decrease in mortality of goats and chickens for the participant households*. Goat and chicken mortality rates amongst target producer groups' households have been significantly reduced to 4% and 6% at endline from 23% and 57% for goats and chickens at baseline, respectively. The findings are far exceeding the project target (14% for goats and 32% for chicken).
- *The LLFs have reached out to more livestock producer group members' households, done more treatments and supported more animals than planned in the project life target.* The LLFs have reached 11,626 households with animal health services, well above the 4,500 targeted. In the process, they have provided a total of 147,692 treatments (target was 25,000) to 90,294 animals according to monitoring information. Nearly, 87.1% of the participants acknowledged that LLFs provided veterinary services in their households in the past 12 months. This is a great achievement comparing to the target of project life of 75%, and well above 61.3% at baseline. However, the net monthly income of the LLFs from sale of animal health services remains meager and not sustainable; it is below the target ($10.01 versus $50). In spite of this, LLFs are still motivated enough to continue with their services in the absence of the project.
- *There was a substantial overachievement of savings in the VSLAs as compared to the project target.* While the project targeted a total of US$30,000 as amount saved or loaned, US$108,178 was actually saved or loaned at the end of project life. Nearly all the participants sampled belonged to a VSLA group which were being facilitated by LOL in the project impact areas.

During the baseline, only over half of all respondents (56.4%) belonged to a VSLA while for comparison, only 51.8% belonged to VSLA. Average savings in VSLA per household increased among the participants to MWK31, 594.75 ($45) at endline, from MWK27, 614.00 ($39) at baseline.

- *The proportion of households that utilized improved business practices was significant though lower than expected.* About 27% of participant households (27.2% FHH and 26.3%MHH) practiced the improved business practices, substantially lower than the targeted 75% though well above the 8.6% (10.9% male and 8.1% females) midline and probably very much well above baseline. The deficit is largely due to low adoption of financial record keeping which is not a surprise among the many lowly educated farmers. Part of this deficit may also be the underachievement in training on household economics where only 10,360 (5,543 females and 4,818 males) were trained against the 18,000 (9,000 females and 9,000 males) targeted. Interestingly, this indicates that more women were trained than men.
- *Wider impact has been noted on food security*. Household Dietary Diversity Score increased for participants after the project to 4.03 at endline from 3.3 at baseline, and 3.3 in the comparison group. While most households consumed grain, roots and tubers at both baseline and final evaluation (91.3% and 100% respectively), the consumption of dairy (33% versus 21.3%), organ meat (12.8% versus 1.3%), eggs (5.5% to 19%) and flesh foods (5.5% to 16.7%) increased greatly. Furthemore, participant households were more likely to consume the following more than the comparison group: dairy (22.1% versus 9.7%), organ meat (12.8% versus 2.2%) and flesh foods (16.7% versus 7%).

Key weaknesses and strengths of the project

Lastly, the following were the key weaknesses of the project:

- *It had short life span.* According to diffusion of innovation theory, the 23-months span is a short period for adoption of unfamiliar and difficult practices such as chick care and record keeping.
- *Lacked direct capacity building of government extension staff.* The government staffs (extension workers) were not trained prior to engaging them as co-facilitators. Consequently, they felt embarassed they were lumped together with farmers during trainings.
- *Sourced livestock for distribution from distant markets.* Livestock procured for distribution travelled long distances before being handed over to farmers because they were sourced far away from points of distribution. This might have principally increased incidences of stress, infection and mortality during transportation.

The following were the key strengths of the project:

- *Appropriate targeting of beneficiaries.* The project was unique because it identified beneficiaries that were vulnerable but serious about livestock production. The criteria that one had to satisfy to receive livestock were particularly essential because it enabled those with appropriate capacity to have a chance to participate and receive livestock.
- *High engagement of stakeholders*. The L4R worked closely with the government staff at all levels.

- *Concentration in small area and reasonable number of beneficiaries*. The project concentrated its activities in small area and worked with a manageable number of participants hence leading to more impact.
- *Enhancement of farmer to farmer extension linkage*. The LLFs and VAs are useful, cost-effective and sustainable approaches of extension.
- *Limited hand-outs*. The project discouraged dependency syndrome by limiting hand-outs.

Recommendations

- The project was implemented for only 23 months yet some of the objectives required more time so that adoption is reasonably judged pursuant to diffusion of innovations theory. While it is easier for farmers to adopt relatively familiar initiatives such VSLAs, it is difficult for majority of farmers to adopt new initiatives such as chick care. Therefore, future project should consider extending project lifespan, such as three years, to allow for adoption of more unfamiliar techniques.
- The KIIs and FGDs revealed that there were livestock supply challenges which could be attributed to lack of capacity of suppliers and sourcing from distant markets. It was learnt in the project that some livestock died due to stress and some unknown causes that even affected other chickens not in the program. It is thus recommended, where possible, that livestock should be sourced locally near where it will be distributed. This is to reduce long travel and bringing in new infection in an area.
- In terms of supplementary feeding, the majority (90%) used maize bran. This is an indication that the other feeds may not be easy to find or may be expensive. It is recommended that future projects provide more lessons on locally available feeds such as cabbages and other leafy vegetables.
- Future projects should consider conducting training needs assessment on not only farmers but also government and other local governing structures for founding sustainability. This recommendation is made based on the interviews with government staff who indicated not to have been empowered enough before being engaged as co-facilitators.
- LLFs provide basic animal husbandry practices, but are not allowed to perform injections as per Malawi's legislation that guides livestock sector. However, reports from government staff (KIIs) indicated that some LLFs still injected animals. On the other hand, FGDs indicated that farmers would have loved this improved access to services extend to injection services. Perhaps Land O'Lakes may take this as a point for initiating policy change discussions considering that vacancy rates for AVOs is significantly high, at least 40% and that the ratio of AVO to farmer is about 1:3500 when the recommended is supposed to be about 1:700.
- The employment of LLFs and VAs was very instrumental in reaching out to more farmers with farmer to farmer advisory service. It is recommended that these be applied in future projects. What was very innovative in this project was the LLF paid service. However, the VA was observed to work on voluntary basis yet there is potential for VA to also be paid from the VSLA group members that they serve. A Private Service Provider (PSP) model is proposed for VA, where the VA receives monthly fees from the VSLA groups that he/she serves.

1. INTRODUCTION

1.1 Project background

In 2014, Land O'Lakes' International Development Division (IDD) received a $1,999,970 grant from the United States Agency for International Development (USAID) through their Office of Foreign Disaster Assistance (OFDA) to implement a 23-month project in Central Malawi called Malawi Livestock for Resilience (L4R). The L4R project was implemented in the two disaster prone districts of Dowa and Ntchisi, directly targeting 6,000 chicken and goat farmer households by building their resilience to enable them with stand climatic and economic shocks through diversified livelihoods and improved financial literacy.

Specifically, the project worked in four Extension Planning Areas (EPAs), covering ten different Village Development Committees (VDCs). Table 1 details the names of EPAs and VDCs in which the project was implemented.

Table 1: L4R target area (EPAs and VDCs)

District	Extension Planning Area	Village Development Committee
Ntchisi	Chipuka	Chikhungwa
		Malenga
	Malomo	Kadundwe
		Mpofo
Dowa	Bowe	Lichere
		Mwangala
		Kamungwe
	Nachisaka	Nyundo
		Zolire
		Chiponda

The L4R project endeavoured to achieve the following specific objectives and intermediate results:

Objective 1: To build resiliency of vulnerable households in Dowa and Ntchisi districts by expanding their livestock production capacity and livelihood asset base

- *Increase capacity to maintain livestock asset base:* The project sought to facilitate the formation of 300 producer groups and built their capacities by providing trainings to 6,000 producer group members in livestock husbandry and group formation and management. The project also trained 150 Livestock Lead Farmers (LLFs) to each provide animal husbandry training to two producer groups.
- *Improve capacity and access to animal health services:* L4R aimed to identify and train the same 150 LLFs in animal health diagnosis and treatment, and link them to private sector input and animal health service providers. Through LLFs, the project provided animal health services to members of producer groups and other livestock keepers in the various communities.
- *Expand livestock asset base:* The project targeted 2,000 households with vouchers to obtain locally available goats and chickens. Of the 2,000 households set to obtain livestock: three-quarters (1,500) of the households were to receive four hens and one cock; one-quarter (500) of the households were to receive two does; and finally, 150 LLFs were to receive one buck each.

Objective 2: To build resiliency of vulnerable households in Dowa and Ntchisi Districts by improving their financial literacy and capacity to plan, save and mitigate risk

- *Improve capacity of households to, save, and mitigate risk:* The project sought to improve financial literacy of the 6,000 households by training three members from each targeted household in household economics, risk mitigation and planning, and business practices. The project also endeavoured to provide capacity building to households to establish 300 VSLAs through providing training of trainers (TOT) training in VSLA methodology to 150 VAs.

1.2 Objective of the evaluation

The final evaluation embraced the conventional Organisation for Economic Cooperation and Development (OECD) criteria; assessing the appropriateness/relevance of the program approach, effectiveness of the implementation in achieving the expected results, efficiency and sustainability of the program activities and outcomes. Specifically, the evaluation was executed to meet the following objectives:

- Assess the appropriateness of the strategies employed by Land O'Lakes in the program given the Malawian context;
- Assess the degree to which the project has met its projected goals, objectives, outcomes and targets and explain deviations using an evidence based approach;
- Provide an objective description of the overall effectiveness and sustainability of the program and its various activities;
- Identify key strengths and weaknesses of the program; and
- Identify key lessons learned and recommendations which should be adopted by Land O'Lakes for similar resilience programs in Malawi or elsewhere in Africa.

1.3 Evaluation questions and criteria

As highlighted, the evaluation adapted OECD criteria as adapted in the request for proposals (RFP), (refer to annex 6 for the RFP). The criteria specifically consisted of the following aspects; appropriateness/relevance, effectiveness (impact), efficiency, and sustainability. In addition, gender equality and equity was also explored. For details, refer to annex 2 for questions falling under each of the criterion that guided the study.

2 EVALUATION DESIGN

2.1 Data collection methods and tools

The evaluation employed both quantitative and qualitative methods. Combining these two types of data did not only ensure appropriate achievement of objectives of the assignment but also enhanced robustness of the findings due to triangulation of the data.

To that effect, the following methods with corresponding tools were used in capturing data in this evaluation:

- Household survey with project participants and non-participants: Face to face, individual interviews were facilitated using structured questionnaires to obtain measurable and quantifiable data from project participants and also from similar non-participants.
- Focus Group Discussions (FGDs) with mainly project participants: A checklist was used to obtain qualitative narratives from project participants to support the quantitative findings.
- Key Informant Interviews (KIIs): KIIs were administered to key individuals within the L4R framework who had in-depth knowledge of the project. The individuals interviewed are as follows; Livestock Lead Farmers (LLFs), Veterinary Assistants (VAs), L4R staff, government agricultural officials, and other relevant stakeholders.

The Evaluation Matrix in Table 2 provides insight on the type of data and methods employed to answer key evaluation questions. As indicated, the study benefited from both qualitative and quantitative data obtained throughout the evaluation exercise. Additionally, the study also utilized information obtained from the L4R project documents, project reports and grey literature.

Table 2: Methods for addressing key evaluation questions

Key Evaluation Questions (KEQs)	*Data Collection Methods to Address Key valuations Questions*				
	Household surveys	*Key Informant Interviews*	*Project Documents*	*Focus Group Discussion*	*Success Stories*
Relevance or Appropriateness		✔	✔	✔	
Effectiveness or Impact	✔	✔	✔	✔	✔
Efficiency		✔	✔		
Sustainability		✔	✔		
Gender Equality and Equity	✔	✔	✔	✔	✔

Source: Adapted from Peersman (2014)[1]

2.2 Sampling

2.2.1 Household survey

The household survey was administered to a random sample of participants and non-participants. The objective of the design was to give every sample element (household producers) an equal chance of being chosen for inclusion in the sample, thus, random selection was used at every stage of sampling to ensure a representative sample that gave unbiased estimates and robust sample statistics.

There were a total of 7,277 participant households organized into 300 producer groups (150 chickens and 150 goats) in Dowa and Ntchisi districts at the time of sampling. The team randomly selected 150 of the producer groups, sampling 90 in Dowa and 60 in Ntchisi since the distribution of groups across the two districts is 60:40, respectively. Half the groups selected in each district were goat groups and half chicken groups.

The evaluation also sought to compare those participant households that received livestock from the project in 2015, and those that did not. The size of the different populations of producer group members were as follows at the time of sampling:

- Goat producer group members who did not receive goats-about 2,300
- Goat producer group members who received goats in 2015-about 413
- Goat producer groups who received goats in 2016-about 259
- Chicken producer group members who did not receive chickens-about 3,350
- Chicken producer group members who received chickens in 2015-about 50
- Chicken producer group members who received chickens in 2016-about 900.

The groups that neither received goats nor chickens were categorized together with those that received either goats or chickens in 2016. The evaluation team decided to do this because, likely, there would be insignificant differences in the resilience of the members who received livestock in 2016 and those that did not because the evaluation period could be too short. Therefore, three groups of livestock producers emerged out of this assumption as follows:

- Participants who did not receive goats/chickens-About 6,809 (2,300+259+3,350+900)

[1] Peersman, G. (2014) Overview: Data Collection and Analysis Methods in Impact Evaluation. Methodological Briefs #10. UNICEF

- Participants(beneficiaries) who received goats in 2015-about 413
- Participants (beneficiaries) who received chickens in 2015-about 50

Using the conventional sample size determination formula[2], representative sample size for each of the foregoing categories of L4R participants was determined and totalled 515 producer group members (participants); at 92% confidence level. Thus, below is how the 515 was arrived at;

- Participants who did not receive goats/chickens (294)
- Participants (beneficiaries) who received goats in 2015 (177)
- Participants (beneficiaries) who received chickens in 2015 (44)

To enable a discussion of attribution of the project results seen in the participants, a comparison group of 200 non-participants was also sampled. Four different EPAs were purposefully selected from which project non-participants were randomly selected. The non-participants were identified using the same criteria as used for identifying project beneficiaries. The following criteria, adopted from the L4R project beneficiary identification, were used:

- Reside within the L4R Districts of Dowa and Ntchisi
- Three months of food insecurity each year over the past two years
- Limited access to land (less than 2 hectares)
- Income less than $1 per day
- Women-or youth-headed households, or those affected by HIV/AIDS
- High dependency ratio (i.e. households supporting people with disabilities
- Dependent on piecework/wage labour or at least part of the year
- No external source of routine remittance

Guided by the criteria, government agricultural officials advised on communities/VDCs to visit to capture data from comparison households having similar demographic characteristics. When in a community, the team randomly sampled villages and then sampled households within the villages practicing chicken and/or goat farming and meeting the criteria to reach the required interviewees per the given VDC.

While a total of 715 respondents (515 participants plus 200 control group) were expected to be interviewed in the whole survey, 716 (514 participants and 202 control) were actually interviewed. The sample distribution was in accordance to the distribution of the sample frame in Dowa and Ntchisi (60:40 respectively). Since the comparison households were picked from different VDCs but in the same districts, the 202 sample size was distributed by 60:40 ratio (Dowa: Ntchisi) as well. The following table details actual sample size distribution:

Table 3: Sample size distribution per district, EPA and categories of beneficiaries

Districts	Participants	Comparison

[2] $n = [Z^2(1-p)p/e^2]/[1+(z^2(1-p)p)/e^2N]$

Where: n= Sample size; N= Population Size; e= Margin score; z= Standard normal deviation; p = Estimate of prevalence rate (0.5)

	EPA	n				EPA	n	Total
		Received goats 2015	Received chickens 2015	Did not receive livestock	Total			
Dowa	Bowe	31	25	137	320	Chibvala	73	110
	Nachisika	17	3	107		Mvera	37	
Ntchisi	Malomo	10	3	84	194	Kalira	36	92
	Chipuka	12	5	80		Chikwatula	56	
Totals		70	36	408	514		202	202

2.2.2 Key informants interviews

For the key informants, selection was purposeful and ensured that all the variant stakeholders were interviewed at all levels (LLFs, VAs, L4R staff, government officials, and other relevant stakeholders) starting from the VDC to the Land O'Lakes level. The final evaluation interviewed 10 LLFs, 10 VAs, 11 government agriculture staff, one Project Advisory Committee (PAC) member and 3 L4R members of staff. Annex 3 has a full list of the key informants interviewed.

2.2.3 Focus group discussions

A total of 20 FDGs spread across the VDCs were conducted; 17 for participants and three for comparison. Refer to Table 4 for details of the FGDs conducted.

Table 4: Details of FGDs conducted

District	EPA	VDC	Type of livestock producers	Category of respondents	Sex	Number of FGD participants
Ntchisi	Malomo	Kadundwe	Chicken	Participants	Females	9
		Kadundwe	Goat	Participants	Females	6
		Mpofo	Goat	Participants	Females	6
	Chipuka	Malenga	Chicken	Participants	Females	10
		Malenga	Chicken	Participants	Males	10
		Chikhungwa	Goat	Participants	Males	5
Dowa	Bowe	Kamungwe	Goat	Participants	Males	6
		Mwangala	Goat	Participants	Females	10
		Mwangala	Goat	Participants	Males	11
		Mwangala	Chicken	Participants	Males	8
		Lichere	Female	Participants	Females	9
	Nachisaka	Nyundo	Chicken	Participants	Females	10
		Nyundo	Chicken	Participants	Males	7
		Chiponda	Goat	Participants	Males	8
		Chiponda	Chicken	Participants	Females	9
		Zolire	Goat	Participants	Female	10
	Mvera	Ngozi	NA	Comparison	Females	6
	Chikwatula	Malenga	NA	Comparison	Males	12
	Chibvala	Funse	NA	Comparison	Males	10

2.2.4 Identification of households for success stories

Senior Consultants led in identifying and interviewing respondents for capturing success stories, principally in consultations with Land O'Lakes staff. Five success stories were recorded.

2.2.5 Ethical considerations

The study embraced seeking for consent from participants of the evaluation so that their rights, of whether to participate or not in the study as enshrined in conventional research principles, were upheld. Interviews proceeded once the respondents had consented to participate in the study.

3 IMPLEMENTATION PLAN FOLLOWED

3.1 Review of documents

The following documents were reviewed for this evaluation:

- The L4R Performance Monitoring and Evaluation Plan (PMEP);
- Baseline report & data collection tools;
- Mid-term report & data collection tools;
- Quarterly and annual reports;
- L4R Program Description in Contract;
- Relevant Government of Malawi documents such as Agriculture Sector Wide Approach (ASWAp), Malawi Growth and Development Strategy II (MGDS II) and Livestock policy.

3.2 Staff mobilization, interviewer training

All 15 research assistants, with a minimum qualification of Bachelors' of Science Degree, were recruited and trained in interviewing techniques (including in-depth interviews) in a two day intensive training workshop that included pretesting of the tools. The training largely covered the following: interviewing techniques; familiarisation with questionnaire; and FGDs and KII techniques. During the training, the English version of questionnaires was translated into local idiom so that the interviewers were fully acquainted with the tools to accurately capture the data. Furthermore, the questionnaire imbedded filters that skipped questions that were not relevant to a particular scenario. For traceability, each questionnaire had details of the interviewer and particulars of the interviewed household.

3.3 Field data collection

Data collection lasted for a total of 15 days. It commenced from 11th May to 22nd May 2016, and then resumed in the same month from 26 to 27th, to finish off KIIs. The field team was split into two with each team led by a supervisor. All the teams started with Ntchisi and finished with Dowa.

3.4 Field quality control measures

The study incorporated multiple layers of quality control measures to capture all possible errors along the evaluation process.

3.4.1 Pretesting

Apart from hiring competent research assistants, the survey tools were pre-tested as part of the training in communities in Chivala EPA, which were not part of the sample. The pre-test was intended to help identify comprehension problems and the appropriateness of response options. Soon after the

pretesting, the team gathered and highlighted areas that needed correction. The senior researchers noted all the comments and then revised the tools accordingly.

Furthermore, the pretesting was continued in the field in principle during actual data collection because the structured household questionnaire was updated after the first two days of fieldwork. Particularly, a senior researcher, in collaboration with a Land O'Lakes staff, organised a meeting for feedback from research assistants on their first day of data collection. All issues that needed correction were noted. When added to the comments for the second day, the tool was revised to produce the final questionnaire used for all the remaining days of the survey.

3.4.2 Field supervision, spot-checks and back-checking

In the early days of the survey, the teams were conducting the data collection in one VDC so that all errors and mistakes associated at early stage of data collection are easily shared and rectified. After being convinced that all issues of that needed attention were sorted out, the teams started to operate in different VDCs to quicken the exercise.

To ensure compliance to data collection procedure, field data collection process was monitored. In the field, supervisors led and supervised the team. The supervisors were skilled, experienced and competent enough to oversee the field work. Nevertheless, senior researchers provided backstopping support to ensure compliance to methodologies and approaches.

To ensure that interviewers do not cheat, about 5% of filled questionnaires were randomly selected from each interviewer and checked with the respondent during the day and returned to the owner after the exercise. Soon after every interview, the interviewer was asked to quickly check the questionnaire for completeness before the respondent left so that appropriately corrections were made instantly. All interviewers checked their own questionnaires for consistency before handing them over to supervisors who checked all the completed questionnaires and sent them back to the interviewers for correction if there were any unclear issues. Furthermore, the senior researchers conducted four spot-checks in the field within the 15 day period of data collection to check if the interviewers were doing the work to the required standard. Spot-checking implied that senior researchers made at least four un-announced visits to the field to check for compliance.

Land O'Lakes staff also participated in ensuring that the field work was compliant to plan. This was done by participating and clarifying about the project during enumerator training, participating in the pretesting and also spot-checking three times.

3.4 Data management

3.4.1 Data entry and cleaning

A data entry template in Statistical Package for Social Scientists (SPSS) was used. After the data were entered, they were properly cleaned by looking at the following areas: Spot-checking (raw data versus electronic data); correcting data entry or coding mistake; and checking logical flow of the data.

3.4.2 Data analysis

The quantitative data collected through the structured questionnaire were analysed using the SPSS. The senior researchers were responsible for data analysis and interpretation of the results. The analysis involved largely descriptive statistics to come up with percentages, frequencies and cross tabulations. In addition, inferential analysis was also minimally done to compare the baseline values and comparison group to the endline.

The qualitative data was analysed by theme and summarised to support the quantitative findings. The senior researchers were also responsible for analysis and interpretation of the qualitative data.

3.5 Limitations and challenges of study

3.5.1 Planned versus actual sample size of 2015 project participants

The field team had difficulties in capturing samples of some of the categories of project participants as expected. The challenge, as reported by the field team, was that some of the farmers from goat groups had switched to chicken groups, particularly those that received goats in 2015. Resultantly, the groups of participants are not as representative as it was planned. However, this problem could have been avoided if the field team reported this timely since L4R staff could have specially organised respondents.

3.5.2 Underestimated work volume

The duration of the exercise was underestimated at two levels. At field data collection, the planned 13 days were inadeqaute; two more days were added for finalising KIIs. Furthermore, the planned 11 days for data entry, cleaning and report writing were not enough as the questionnaire had an overwhelming number of variables. This made it very difficult to stick to schedule. However, good understanding and communication between Land O'Lakes and IFESOR enabled appropriate adjustment of the schedule on selected deliverables.

3.5.3 Limited accuracy on comparing baseline and endline

The baseline data was collected prior to participant registration and thus from a general population of goat and chicken producers in the target area. However, the endline population was of project participants only. Therefore, this limited accuracy of comparison on progress on key indicators. Major differences in characteristics of the baseline and endline samples are underlined in the findings.

4 FINDINGS

4.1 Characteristics of respondents and households

4.1.1 Demographic characteristics

The final evaluation survey interviewed a total of 716 respondents of which about 60% (430) were from Dowa while 40% (286) were from Ntchisi. The respondents were in two major categories, namely participants of the L4R project (514) and comparison group (202). The sample sizes of the two categories of population were expected to show similar characteristics for valid comparisons. Since the baseline survey was conducted before L4R participants were identified, it constituted a general population of goat and chicken producers in the target area. On the other hand, the endline sample consisted of the project participants and a comparison group that are similar to the participants. Thus, differences in the samples of the baseline and endline were expected.

As indicated in Table 5, the majority of respondents from the endline sample were males (65% participants; 66% comparison), which differed from the baseline (53.4% male) since the baseline made an effort to oversample female headed households. For the same reason, the percentage of respondents who were married differed between the studies (89% in participant and comparison and 72.3% at baseline). The average ages of individuals in the categories of samples in the final evaluation (40 years old for participants; 38 years old for comparison) were slightly lower than baseline (44 years old). However, household sizes were similar across the different groups (5.6 for participants; 5.2 for comparisons; and 5.4 for baseline). The percentage of respondents that attended some schooling was also similar for the baseline (93.6%) and the endline (90.2%). Interestingly, the comparison group had significantly less schooling (82.2%).

Table 5: Demographic characteristics of respondents at baseline and endline

Demographics	Baseline		Endline			
			Participants		Comparison	
	n	Total	n	Total	n	Total
Sex	390	53.4%M; 46.4%F	514	65.0%M;35.0% F	202	66.6%M; 33.4%F
Age	378	44	495	40.30	181	38
Married	390	72.3%	456	89.1%	180	89.1%
Widowed	390	13.3%	456	4.5%	180	4.5%
Divorced	390	8.5%	456	2.7%	180	2.0%
Separated	390	5.4%	456	1.6%	180	2.0%
Single	390	0.5%	456	1.8	180	1.5
Some Education	390	93.6%	512	90.2%	202	82.2%
Is household head	390	84.6%	514	47.1%	202	49.0%
Household size	390	5.40	508	5.56	200	5.22

As shown in Table 6, respondents during the final evaluation had slightly better facilities than those at baseline. Less households had thatched roofs at endline (54% of participants, 59.2% of comparison households, 67.4% at baseline) while more households had iron roofed houses (28% participant, 35.8 comparison and 31% baseline). Furthermore, more households had houses made of burnt bricks at the endline (45.6% participant, 48.8% comparison and 41.3% baseline) as opposed to those that owned houses made of mud and sticks (10.5% participants, 7.0% comparison and 10.8% baseline). The foregoing trend with exception of comparison was also noted in households who owned a pit latrine with a slab (18.6% of participants; 13.0% of comparison households; 12.1% baseline), and had access to a borehole (81% participant; 57.7% comparison, 71.5% baseline).

Table 6: Characteristics of the home at baseline and endline

	Baseline	Endline (716)	
	(n=390)	Participant (n=514)	Comparison (n=202)
Roof material			
Grass thatch	67.4%	54.0%	59.2%
Iron	31.0%	28.0%	35.8%
Asbestos	-	12.3%	4%
Tiles	-	2.7%	1.0%
Plastic	-	1.8%	0.0%
Wood	-	1.0%	0.0%
Wall material			
Burnt Brick	41.3%	46.5%	48.8%
Mud brick	32.3%	40.3%	43.8%
Mud & sticks	10.8%	10.5%	7.0%
Wood/Poled	0.0%	0.6%	0.0%
Cement block	-	0.6%	0.5%
Toilet type			
None	2.1%	2.5%	2.5%
Flushing Toilet	0.8%	0.6%	0.0%
Compost toilet	0.8%	5.9%	0.0%
Pit latrine w/slab	12.1%	18.6	13.0
Pit latrine w/o slab	84.1%	72.1%	84.5%
Water source			
Piped water	3.1%	1.4%	0%
Hand pump/ borehole	71.5%	81.0%	57.7%
Dug well	13.1%	6.7%	17.4%

River/ pond/ stream	12.3%	9.4%	24.4%

4.1.2 Household asset base

The table below shows household ownership of key assets at baseline and final evaluation. While the percentage of households that own some assets is about the same between baseline and final evaluation, there are clear increases in the percentage that own bicycles (7.4% baseline; 48.0% participant at endline), solar panel (11.1% baseline;20.5% midterm and 21.4% participant at endline) and animal barns (60.3% baseline; 33% midterm; 78.4% participant at endline). The shift from midterm to final evaluation is more notable since both surveys were conducted with participants, while the baseline was conducted with the general population.

Table 7: Household assets owned across beneficiary and comparison households

ASSETS OWNED	BASELINE (N=390)	MIDLINE (n=396)	ENDLINE			
			Category		Participants asset by sex of respondent	
			Comparison (n=202)	Participants (n=514)	Male (n=334)	Female (n=180)
Radio	56.7%	48.2%	45.0%	54.6%	44.9%	72.6%
Mobile phone	51.0%	60.4%	64.9%	53.8%	46.7%	67.0%
Sofa	1.3%	8.3%	7.4%	9.0%	7.8%	11.2%
Bed	27.7%	17.7%	18.3%	21.6%	17.1%	30.2%
Mattress	20.8%	12.9%	18.8%	14.0%	13.2%	15.6%
Solar panel	11.1%	20.5%	11.9%	21.4%	18.3%	27.4%
Plough	0.8%	0.5%	5.0%	6.2%	7.5%	3.9%
Bicycle	7.4%	49.8%	54.0%	48.0%	40.7%	61.5%
Animal barns	60.3%	33.6%	70.3%	78.4%	79.3%	76.5%
Food barns	22.8%	4.6%	16.3%	27.3%	23.7%	34.1%
Oxcart	8.2%	7.8%	12.4%	8.2%	7.8%	8.9%
Hoe	97.4%	93.4%	97.0%	92.0%	93.4%	89.4%
Treadle pump	3.1%	3.0%	1.0%	3.1%	2.7%	3.9%

4.1.3 Household income

To explicitly capture the income effect of the project on households, the survey captured information of the total income of the household. This was done by listing all sources of income and attaching money value to each source before summing them up to get total income of the household. Through this approach, average income for project beneficiaries was MWK179, 562($256.52)[3] per annum while that of non-participants was lower (MWK137, 417/$196.31). Assuming unequal variances, the difference of these incomes is significant at 5 percent level. Interestingly, women participants had higher income than the male participants just as FHH were than MHH.

The baseline report revealed a relatively higher average income of MK197, 038 ($281.48) among households than the endline. However, its median which is an appropriate measure of central tendency whenever there are outliers is slightly near the one reported at endline. Refer to Table 8 for details.

[3] Converted at the rate, 1$ equals MWK700.

Table 8: Comparison of household incomes by beneficiaries' status

	Income of the household (MK)						
	Baseline (n=386)	Endline					
		Category		Participants by Sex of respondent		Participants by Sex of HH	
		Comparison (n=202)	Participants (n=514)	Male (n=334)	Female (n=180)	MHH (n=352)	FHH (n=162)
Mean	197,038	137, 417.23	179, 562.87	161, 552.69	213, 168.44	170,650	199,049
Median	90,000	81,000	85,000	66,500	110,000	68,000	101,000
		P-value: 0.019*					

4.2 Relevance of the project

There is no doubt that the L4R project was relevant in the Malawian context. Agriculture is the main source of employment in Malawi, encompassing 80% of the labour force. Acutuallly, 92% of the sampled households in the endline indicated farming as their main occupation and 86.2% indicated receiving some income from farming. About a quarter of the sample (28%), also indicated that they receive some income from livestock or livestock product sales. Table 9 details on the sources of income.

Table 9: Source of income

Sources of Income	Baseline (n=386)	Midline (n=396)	Endline			
			Household Type		Sex of Respondent	
			Participants (n=514)	Comparison (n=202)	Male (n=334)	Female (n=180)
Farming	85%	84.3%	86.2%	85.3%	86.1%	85.6%
Piecework			31.2%	41.1%	36.9%	28.4%
Salaried job	1.6%	1.5%	2.2%	5.3%	2.2%	4.7%
Land rents			1.2%	0.0%	1.3%	0.0%
Equipment hiring			1.2%	1.1%	1.6%	0.4%
Pension			0.6%	0.5%	0.9%	0.0%
Remittance			2.9%	4.7%	4.5%	1.3%
Hawker			7.5%	3.2%	6.7%	5.5%
Firewood selling			3.1%	1.1%	3.6%	0.4%
Molding bricks			1.6%	1.6%	2.2%	0.4%
Charcoal selling			1.8%	0.0%	2.0%	0.0%
Livestock	22.8%	22.5%	27.7%	21.1%	24.7%	28.0%
Fishing			1.4%	0.0%	1.1%	0.8%
Other	10.15%	10.4%	20.2%	24.2%	20.0%	23.7%

Additionally, the devastating effects of climate change, largely linked to increased frequency of the disasters, are predicted to continue in Malawi just as it is globally (McSweeny et al. 2010[4]; Saka et al. 2013[5]; IPCC 2014[6]). Climate change in Malawi largely increases the unpredictability of crop production. Therefore, interventions that build resilience by diversifying farming and promoting savings like this one are contributing to making agriculture and households more resilient to climate change and climatic shocks. Currently, agricultural diversification is very low in Malawi, with most farmers growing maize. With the climate change enigma, calls to diversify farming by promoting livestock are rife, as evidenced in the Malawi Government's ASWAp and MGDS II, as one of the agricultural commodity priority areas.

Furthermore, qualitative findings from FGDs indicated that the project participants thought the project was relevant. Participants were attracted to join the project for plausible objectives such as to improve livestock husbandry practices (thus increasing the number) with the help of LLFs, to receiving more livestock, to learn how to save money and to have access to financial services in the VSLAs. The underlying reason for wanting to achieve the aforementioned objectives is that goat and chickens matter in meeting their basic household needs such as food, cash and security; likewise VSLAs. The following are quotes from some of the participant FGDs:

- "We keep goats and chickens for meat, eggs, and cash and manure so that we are able to solve problems such as hunger".
- "We mainly keep goats or chickens so that we sell some when we need cash or food. Goats also provide manure which may reduce amount of fertiliser to buy."
- "We keep livestock for security and against emergencies such as funeral".
- "Money realized from VSLAs can be used in livestock purchase, others use it in buying maize and fertilizers"
- "Others have started businesses using money realized from VSLAs. One example is a butcher man within the group (slaughters goats and chickens)".

A key informant [Project Advisory Committee member] indicated that the project was relevant because it promoted small livestock such as goats and chickens which are well suited for small-scale farmers unlike cattle and other big livestock which from experience tend to be a burden to farmers since they demand more resources seldom attained by the small-scale farmers. He further explained that the project fell within the government broad agenda; the following quote from the PAC member elucidates the finding:

"The project's design was well aligned to nation's livestock policy which envisions Malawi becoming a nation that is self-sufficient in safe locally produced livestock. Through expansion of livestock asset base, L4R directly addressed this national mission. Secondly, the objective of the Malawi Growth and Development Strategy II (MGDSII) is to create wealth and reduce rural poverty through sustainable economic growth and infrastructure development. Specifically, the government is committed to increase rural incomes in order to reduce rural-urban migrations. By distributing chickens and goats to vulnerable households, training beneficiaries in best husbandry practices and promoting VSLAs, Malawi L4R bears potential for enhancing rural livelihoods thereby reducing vulnerability of poor households to both economic and climatic shocks hence contributing to the wider national goat"

Generally, government staff considered all objectives of the project relevant. For instance, it was indicated that before L4R, chickens could be wiped out in the communities due to new castle disease

[4] McSweeney, C. et al. (2010) The UNDP climate change country profiles improving the accessibility of observed and projected climate information for studies of climate change in developing countries. Bulletin of the American Meteorological Society. 91:157-166

[5] Saka, J.D.K. et al. (2013) Chapter 5: Malawi. In, Hachigonta, S., Nelson, G.C., Thomas, T.S., & Sibanda, L.M. (eds.) Southern African Agriculture and Climate Change: a comprehensive analysis. International Food Policy Research Institute: 111-146.

[6] IPCC (2014) Climate change 2014: synthesis report. Intergovernmental Panel for Climate Change (IPCC)

because access to vaccination was limited. An emphasis was also made that the objective of promotion of savings and the VSLAs was very relevant. Hereunder is one of the quotes from government staff;

"VSLA activities have helped farmers a lot; farmers bought food using the savings. Annually, they share VSLA money in December. So they make plans with that money. Others buy fertiliser while others buy food. Others received as much as MWK100, 000 [$143]. Most of the times the money is under the control of a woman while the largely grown tobacco is under men".

Finally, KIIs with L4R staff underscored that all the objectives and activities were very relevant though the following were rated to be highly relevant:

- Promotion of VSLAs. The VSLA have proved to be key in enhancing resilience of households since they are providing farmers a mechanism to save their money and easily access finances.
- Promotion of recommended animal husbandry practices like raised kraal, supplementary feeding and promotion of chick-care has tremendously increased livestock asset base.

Below is a quote from one of the L4R staffs on the relevance of the project objectives and activities:

"The training of farmers in the four areas of livestock management, namely housing, disease control, feeding and breeding were very relevant in meeting participants' needs. They helped farmers to have healthy livestock. Of special mention are chick care and vaccination in chickens which reduced time between brooding and egg laying and reduced incidences of new castle disease, respectively. Mass vaccination in chickens was done every three months and this led to no cases of new castle disease in Nachisaka EPA"

In succinct, the Malawi government policies, quantitative findings and stakeholders consulted all point in one direction which is that the project, its objectives and activities were revenant to the needs of the participants. However, the only point that came out strongly was that the life span was shorter than stakeholders expected according to majority of government staff and participants.

4.3 Effectiveness/impact of the project

4.3.1 Livestock asset base

Raising livestock asset base is one of the objectives of the L4R. The program expected to do this through a number of pathways as follows: firstly, the project directly distributed animals to a portion of the participants; secondly, through the decrease in mortality rate from improved animal husbandry practices and access to animal health services by the participants; and lastly, through access to savings and loans through the VSLAs.

Results show that average number of animals (especially chickens and goats) owned by a household has increased throughout the implementation period of the project. Average number of chickens has increased from 9.6 to 14.7 between the baseline and final evaluation, while that of goats has just slightly improved from 4.6 to 5.29 (refer to Table 10). Differences in increase can be due to different reproduction cycles between goats and chickens. Chickens take short time to reproduce whereas goats take almost the whole year to reproduce. Additionally, chickens are more fecund than goats.

Table 10: Average number of livestock

Animal Type	Household Livestock Asset Base					
	Baseline (n=310/302)	Midline (n=214/164)	Endline			
			Household Type		Participants by sex of respondent	
			Comparison (n=202)	Participant (n=514)	Male (n=334)	Female (n=180)
Chickens	9.6	10.4	10.67	14.37	14.68	13.77
Cocks		1.4	1.90	1.99	2.05	1.88
Hens		4.9	4.72	7.27	7.34	7.15
Chicks		4.2	7.05	8.64	8.44	9.07
Goats	4.6	3.5	5.75	5.29	5.11	5.59
Adult Bucks		0.5	1.71	1.53	1.58	1.45
Adult Does		2.4	3.07	3.49	3.22	3.87
Kid Bucks		0.2	1.86	1.68	1.66	1.71
Kid Does		0.3	2.62	1.49	1.45	1.67

According to the final evaluation survey, 75% of the participant households sampled had a viable flock size of chicken (5 hens), higher than 69% at baseline but lower than the 90% targeted in the project life span. About 37% of households had viable herd/flock size of goats (4 does), higher than the 15% at baseline and 26% at midline but slightly lower than the 40% targeted in the project life span. Refer to Table 11 for details.

Average value of livestock (chicken and goats) at endline for a participant household was MWK105, 594 ($150.85), far much greater than the value at baseline (MWK61, 933/$110.2). This means average livestock asset base per household has increased by about 70% from the baseline. Further analysis indicated that 77.2% of the participant households (76.5% MHH and 78.4% FHH) experienced increase in livestock asset base over the project period. This is slightly above the project target of 75%. Comparing it with the midline which reported lower value than baseline (MWK52, 263/$93), the endline average livestock asset base per household has doubled. Further analysis indicated that 83.9% of the participant households (84.9%MHH and 81.8%FHH) experienced increased livestock asset base when taking midline as a benchmark. This is a surprise because the endline had been conducted about seven months after midline.

However, the phenomenal increase could be attributed to intensification of project implementation based on midterm recommendations; for instance, a significant amount of livestock was distributed in 2016. By the time the midterm survey was conducted, only 240 households had received livestock against the target of 1,000 while by the time the endline was conducted; monitoring data information indicated that over 2,000 households had received livestock. A part from the distribution of the livestock, other practices that were recommended to be intensified according to the midterm were: reduction in livestock mortality through improved animal husbandry practices and access to animal health services, through practices to decrease brooding time, and through household purchase of livestock through VSLA savings activities. Therefore, the number of households experiencing increased livestock asset base is justifiable. The significant difference between the baseline emanates from the fact that baseline had a different population that also included non-participants of the project hence limiting comparability as already highlighted.

The value of the livestock was determined by multiplying the total number of the livestock and average prices recorded at the endline survey. The indicator on percentage of households was calculated by adapting the formula in the PMEP; number of households that participated in the project whose livestock value surpassed the average of the baseline over the total number of households sampled. The major limitation with this method is that the baseline had a different population. For appropriate conclusion, the midline helped because its sample was drawn from the same population with the endline.

Table 11: Size and value of goat herd/chicken flock

Variable of Interest	Baseline		Midline		Endline			
	n	*Value*	*n*	*Value*	*n*	*MHH*	*FHH*	*Total*
Viable flock (chickens)	390	32.6%	171	36.3%	514	76%	74%	75%
Viable flock (goats)	390	11.4%	171	26.2%	514	38%	36%	37%
Average Livestock Asset Base (goats and chickens)	390	MWK 61,933	396	MWK 52,263	254	MWK 106,132	MWK 104,578	MWK 105,594
Median Livestock Asset Base (goats and chickens)	390	MWK 48,500	396	MWK 42,000	254	MWK 102,157	MWK 96,541	MWK 101,033

Land O'Lakes adopted a voucher approach to livestock distribution. According to the project proposal, this arrangement ensured linkages among players and was used to track the number of livestock that had been redeemed. Results of the endline evaluation show that, 62% of the households surveyed received livestock vouchers and 87% of those that received vouchers actually redeemed animals (see Table 12). However, cross reference with project monitoring information indicates that all the 2,000 producer group members set to receive had redeemed (1,500 members for goats and over 500 chickens). The differences in the results could be attributed to lack of honesty in some members who might have thought that more livestock would be distributed after the survey. Therefore, the monitoring data would be more reliable especially due to the tracking of the vouchers unlike during the survey where verification is usually difficult.

Table 12: Vouchers and livestock redemption

Received Voucher	Baseline (n=390)	Midline (396)	Endline (n=480)		
			Male (n=329)	Female (n=151)	TOTAL (n=480)
No		90.4%	36.6%	40.7%	38%
Yes		9.6%	63.4%	59.3%	62%
Redeemed Animals	Baseline (n=390)	Midline (n=396)	Endline (n=318)		
			Male (n=222)	Female (n=96)	TOTAL (n=318)
No		76.3%	12.0%	16.1%	13.5%
Yes		23.7%	88.0%	83.9%	86.5%

As depicted in the Table 13 that follows, average number of redeemed goats was 1.79 does while for hens was 3.72. The findings near what is reported in the L4R reports, when rounded to nearest whole numbers, that project beneficiaries received 2 does and 4 hens each.

Table 13: Number of animals redeemed

Statistics (n=282)	*Goats Redeemed*	*Bucks Redeemed*	*Does Redeemed*	*Chickens Redeemed*	*Cocks Redeemed*	*Hens Redeemed*
Mean	2.35	.97	1.79	4.61	.99	3.72
Median	2.00	1.00	2.00	5.00	1.00	4.00
Mode	2	1	2	5	1	4
Min	1	0	1	1	0	1
Max	3	1	2	5	1	4

As shown in Table 14, most of the redeemed livestock have not yet reproduced. Only 19.4% of households that received livestock in 2015 reported that one or more of their livestock reproduced. Further analysis indicates that average number of goat offsprings per household of those whose livestock reproduced is 1.24 while that of chickens is 13.9. Interestingly, results further indicate more than 80% survival of both offsprings.

Table 14: Livestock multiplication and survival

Does any of redeemed livestock have any offsprings?			Frequency	Percent
No			224	80.6%
Yes			54	19.4%
Total			278	100.0
Number of Offsprings Reproduced (n=54)				
	Min.	*Max.*	*Mean*	*Std. Deviation*
How many goat offsprings were reproduced?	1	4	1.24	.641
How many chicken offsprings were reproduced?	2	33	13.90	8.211
Survival of Offsprings (n=54)				
	Min.	*Max.*	*Mean*	*Std. Deviation*
How many goat offsprings are alive?	1	2	1.19	.396
How many chicken offsprings are alive?	5	25	12.88	6.131

4.3.2 Capacity to maintain livestock asset base

Easy and cheap access to extension services is imperative for promotion of best practices in animal production thereby enhancing productivity. However, agricultural extension system in Malawi heavily depends on government's extension workers who are few, less motivated and in need of transport mechanisms to facilitate farmer visits. Through the project, L4R has been training farmers in good animal husbandry practices through the LLF, a farmer to farmer extension linkage.

The project targeted building capacity of 150 LLFs to service 300 producer groups (containing 6,000 households) and targeted participation of female farmers in the supported groups to be 50%. Monitoring data shows that the 150 LLFs have received trainings in animal health services and husbandry practices and have been serving the 300 livestock producer groups (with 7,277 households) comprising 52% of women. The final evaluation sample indicates that 88.8% (89.8% females and 88.3% males) L4R project participants received training in various aspects of animal husbandry in the last 12 months. This is far higher than the 30.7 % of comparison group that received training (See Table 15). The endline evaluation sample further indicates that those that received training on goats and chickens increased substantially from the baseline, 98.9% versus 7.7% for chickens and 98.2% versus 14.6% for goats. Results indicate that access to livestock training by farmers has improved more than ten times.

Table 15: Training on livestock production

Did you receive any livestock management training in the past 12 months?	Baseline (n=386)	Midline (n=363)	Endline			
			Category		Participants gender	
			Comparison (n=153)	Participants (n=482)	Male (n=316)	Female (n=166)
No			69.3%	11.2%	11.7%	10.2%
Yes			30.7%	88.8%	88.3%	89.8%

FGDs with participants confirmed that trainings were administered. Participants attributed this improvement to L4R's LLFs who are readily available to support fellow farmers. Below is a quote from goat male farmers in Bowe EPA;

"LOL taught us about constructing a raised khola, keeping livestock as a business, storing goat feed, identifying sick goats and knowing the heat period for goats. The most useful topics to us were keeping livestock as business and how to construct a raised khola".

On the other hand, comparison FGDs also agreed with the quantitative findings, indicating that such trainings have not been received. Below is a quote from male farmers in Chivala EPA:

"We have never received any training on improved goat and chicken husbandry practices".

To attribute the improved farmers' access to livestock training to the L4R project, the study further asked participants to indicate all organizations that provided livestock training in the area. Interestingly, as depicted in Table 16, nearly all participants (97%) indicated Land O'Lakes as the provider of livestock information in the area. Government and other NGOs came second with a barely were mentioned by few L4R participants (1.6% and 6% respectively). Over half (53.1%) of the comparison respondents indicated that Government is the training provider, and surprisingly followed by Land O'Lakes (28.6%). This could possibly mean that the LLFs reach out to more farmers beyond their areas.

Table 16: Livestock training providers

Who provided training on livestock information?	Type of Household *(percentage of cases)*	
	Comparison (n=44)	Participants (n=432)
LOL	25.0%	97.0%
Government	56.8%	0.5%
other NGOs	18.2%	5.3%
other trainers	0.0%	3.7%

On training content, most of the respondents indicated receiving training on animal housing (87.3%), animal feeding (82.2%), and animal health (63.9%). Refer to Table 17 for details. The training also focused on household economics, VSLAs and animal breeding. However, analysis of farmer survey reveals that only 20.2% received training on record keeping despite that monitoring information indicates that everyone received training. FGDs participants also did not mention recording keeping as a training received. Somehow, this could be attributed to farmers forgetting or having not received it in

the past 12 months. The revelation also provides an explanation to observations from LOL staff who indicated that adoption of record keeping by farmers still remains a challenge.

Table 17: Type of livestock training

Type of Training	Midline (n=396)	Endline Participants		
		Male (n=316)	Female (n=166)	TOTAL (n=482)
Housing	86.0%	87.6%	86.8%	87.3%
Breeding	41.1%	59.1%	42.4%	53.0%
Animal health	66.1%	61.8%	67.5%	63.9%
Feeds and Feeding	84.6%	82.9%	81.1%	82.2%
Record Keeping	31.4%	18.1%	23.9%	20.2%
House Enterprise	36.9%	29.9%	39.5%	33.4%
VSLA Training	44.1%	46.1%	46.9%	46.4%
Livestock as business	47.4%			
Other training		17.3%	10.7%	14.9%

When asked to what extent the trainings have changed how the participants manage their livestock, 76.8% of the participants that received trainings indicated that the trainings have helped them a lot. The FGDs with LLF verified that they have gained knowledge on the sort of livestock that should receive drugs and also how to make hay using groundnuts haulms. Feed preparation using a feed ration of maize bran mixed with soybean meal as supplementary feed for goats and chickens. The participants pointed out that, more importantly, they have known how to construct raised khola. Further, FGDs also revealed that the most useful topic during the trainings was how to administer drugs and vaccines to livestock. To further understand gender participation, the respondents were asked to indicate, who in the household, attended the training. Majority of the respondents said that the trainings were attended by women as shown in Table 18.

Table 18: Livestock training participant

	Endline Respondents	
	Participant (n=431)	Comparison (n=153)
Wife	65.9%	89.8%
Husband	34.1%	10.2%
Total	100%	100%

4.3.3 Animal husbandry practices

The percentage of households that are applying improved animal husbandry and feed techniques is an outcome indicator which measured adoption of animal husbandly and feeding techniques by livestock farmers. Specifically, it captured a percentage of households that applied at least 3 out of 5 of the following improved animal husbandry and feed techniques:

1. Improved housing: Goats and chickens: the farmer must have a raised kraal with a well thatched roof and strong poles and floor).
2. Improved breeding practices: Goats: inferior bucks are castrated. Chickens: farmer uses chick care.
3. Improved feeding practices: Goats, feed hay bales or crop residues, grow fodder or feed local soya/maize meal. Chickens: feed local food rations e.g. Maize bran plus protein source.
4. Improved Animal Health: Goats: Routinely de-worm and dip. Chickens: practice routine New Castle disease vaccination and de-worm; seek veterinary care for livestock when sick.

5. Record keeping: Farmers keep health records of livestock.

The calculation indicated that 72.4% (n=514) of the participants applied at least 3 of the 5 practices (71.6%MHH and 74.1% FHH), slightly lower than the target of 75% and phenomenally above the comparison (24.8%, n=202), midline (59.6%; 58.4 MHH and 65.3% FHH), and the baseline values though presented in a slightly different manner as they were disaggregated by livestock (MHH: 7.1% goats; 2.4%; and FHH: 4.7% goats; 2.9%). Thus, the indicator has been fairy achieved especially when the margin of error adopted is considered (±5%) and when comparing with the comparison, baseline and midline. However, what prevented phenomenal achievement is chiefly the low adoption levels of recording keeping which might have not been considered as a pressing need from the farmers' perspective due to factors explained in another section.

4.3.3.1 Adoption of raised kraal (khola)

Adoption of a raised khola was one of the good animal husbandry practices that were promoted by the Malawi L4R project. The survey therefore probed on the number of project beneficiaries that have adopted raised khola both under goat and chicken husbandry. Endline results show that 65.2% of chicken farmers and 63.3 % of goat farmers have a raised khola. This is a huge leap from both baseline (7.7% and 21.5%) and midline (52% and 35.1%) results. Interestingly, adoption of raised Khola does not vary significantly between male and female headed households.

Despite that adoption of raised khola was a pre-requisite for the farmer to receive a livestock, field testimonies from FGDs indicate that farmers have now embraced raised khola due to observed benefits. Farmers argued that adoption of raised khola ensures healthy and clean livestock since raised khola prevent moist and cold conditions that cause diseases and prevent good wellbeing of animals in the khola. Furthermore, a raised khola is easy to clean and permit adequate ventilation thereby reducing proliferation and spread of disease among animals in the khola. Below is a quote from goat male farmers from Nachisaka EPA:

"Yes we have the raised khola for our goats because of LOL. The raised khola is clean such that goats cannot easily be infected. We are able to get manure and apply in Dimba…."

Table 19: Adoption of raised khola

Type of Raised Khola	Baseline	Midline	Endline			
			Category		Participants' Khola by sex of respondent	
			Comparison (n=202)	Participants (n=514)	Male (n=334)	Female (n=180)
Chickens	7.7%	52%	24.6%	65.2%	65.2%	65.0%
Goats	21.5%	35.1%	32.0%	63.3%	63.4%	63.2%

4.3.3.2 Reasons for not practicing raised khola

Furthermore, considering that some farmers do still not used a raised khola, the survey also looked at some of the reasons making some farmers not adopt a raised *khola*. Results show that main reasons against full adoption of raised khola are: unavailability of materials (25.39%), too much cost (24.87%), fear of thieves (22.80%) and not being trained (10.36%). The survey revealed that average cost for constructing a goat raised *khola* was MK16, 151.29 (US$23) and that of chicken was MK4, 915.61 (US$7). While many of the reasons are self-explanatory, some beneficiaries indicated that they fear

that raised kholas for chickens (especially small kholas) can promote thieving of chickens since the thieves can just carry the whole khola thereby using the khola as a carriage.

The qualitative data also align with the reported findings indicating that raised Khola for goats is expensive and that it requires poles that are difficult to find. The issue of the theft also came out, forcing some farmers to keep livestock in their houses. Below are the points mentioned in "verbatim" across various FGDs:

- It requires about MWK15, 000 to MWK20, 000 to construct it [goat khola]; we see this as a challenge.
- There are no challenges really with the raised kholas except *'Kaligondo'* that sometimes enters the khola and catch our chicken
- There are no challenges really except the cost involved in constructing the kholas: it requires things like poles and nails which we buy. Otherwise, it is very conducive khola for chickens such that we rarely see sick chickens.
- We see challenges when termites have destroyed some poles; goats get pierced with nails and sometimes breaking a leg. In addition, it is not easy to meet the cost involved in constructing the kholas: it requires things like poles and nails which we buy.

However, despite the challenges, the adoption rate is on track considering that majority have adopted within the 23 month period. Normally, diffusion theory indicates that there are always other people who are skeptical with regard to adoption of technologies who wait for others to adopt first in order for them to do likewise.

4.3.3.3 Sources of money for constructing raised khola

Considering that "unavailability of materials" and "too much cost" were the main reasons for not constructing a raised khola, the survey asked those that had constructed a khola, where they had sourced the money. Interestingly, about half of the farmers (47.24%) indicated that they borrowed from the VSLA. This is interesting considering that VSLA were promoted under the Malawi's L4R project. Farmers argued that VSLA are a *"handy"* source of finances in the village because they do not involve complications of the formal financial sector.

Apart from borrowing from the VSLA, the second common source of money for construction of raised khola was *"selling of crops"* with 25.13%. This result is expected considering that agriculture in Malawi is predominated by crop production and since farmers were told to construct raised kraals before they receive and animal, selling of their crop harvest was a readily available source of income. Other sources of income that were mentioned include: small business (5.53%), selling of livestock (5.28%), and causal labor and savings (4.77%).

4.3.3.4 Supplementary feeding

The majority of farmers are providing supplementary feeding to their livestock. It was noted from the study that 75.1% of the participants (82% in Ntchisi and 71.4% in Dowa) provide supplementary feed to goats as compared to 63.5% of comparison and 21.9% at baseline. Interestingly, more female participants provide supplementary feeding to goats than males (80.7% females versus 72.1%). On chickens, it was noted that 73.4% provide supplementary feed to chickens (76.1% Ntchisi; 71.8% Dowa), compared to 70.5% of the comparison households and 48.7% at baseline. Again, females were in the lead in provision of supplementary feeding chickens than males (74.5% Females versus 72.8% Males) among the participants in the endline. Clearly, Ntchisi has majority of farmers practicing supplementary feeding which might be as a result of availability materials such as maize bran or

differences in extension expertise in influencing adoption since the trainings were conducted in all districts. The findings also underline that more women adopted the essential practice than men.

Table 20: Provision of supplementary feeding

	Baseline (n=295)	Endline	
		Participant (n=466)	Comparison (n=167)
Does your household provide supplementary feed to goats?	21.9%	75.1% • 80.7% female: 72.1% male • 82% Ntchisi: 71.4% Dowa	63.5%
Does your household provide supplementary feed to chickens?	48.7%	73.4% • 74.5% female: 72.8% Male • 76.4% Ntchisi: 71.8% Dowa:	70.5%

The most common feed being used for supplementary feeding in goats among the participants include: maize bran (90.6%), home-made ration (2.5%), Leucaena (0.4%), Salt (0.4%), roasted soya (0.4%), and clean water (3.2%). In chicken among the participants, supplementary feeding regime is being practiced by feeding different feeds, and participants responded in the following manner: maize bran (85.9%), Leucaena (0.3%), salt (2.5%), home-made ration (2.8%), fish meal (0.3%), and roasted soya (0.3%), clean water (4.1%). When compared to comparison, majority indicated that they feed maize bran to goats and chicken (95.2% and 94.5% respectively. As much as the percentages of adoption of maize bran are slightly higher than the those for participants (90.6% for goats and 85.9% for chickens), the comparison registered very much lower adoption of other supplementary feeding practices than participants, with most of them zeros. For instance, none of the comparison livestock producers fed their livestock home-made ration, leucaena, salt, fish meal and roasted soya bean as the case with the participants.

Some of the fodder for supplementary feeding is sourced from own growing. The study revealed that 12% of households grew folder in the previous growing season (2014/2015), an improvement from the baseline (6.2%) and midline (8.1%). More than half (58.3%) of the participants that grew fodder, grew leucaena, one quarter (25.0%) grew soya and sesbania sesban (8.3%) of the participants for supplementary feeding.

The FGDs with participants indicated that they use maize bran, groundnuts haulms and Rhodes grass to feed goats as supplementary feed. They also indicated to utilise feed preservation techniques such making hay out of groundnut haulms for use when feed is scarce. This validates the results from the household interviews. On supplementary feeding for chickens, the producer groups in the FDGs pointed out that they feed chickens with maize bran, home-made meal which is maize and roasted soya meal though the latter was quantitatively reported by fewer participants(2.8%). The participants also pointed that they prepare this meal and keep it in a bag for future use, and this reported to improve egg production.

4.3.3.5 Chicken care

The study has shown that 30.3% of the chicken producer participants practiced chick care (31.8% females and 29.1% males), higher compared with midterm review (22.4%) and which was likely insignificantly practiced at baseline. More chicken producer participants (35.9%) in Ntchisi practice

chick care than 26.5% in Dowa (refer to Table 21). Of those, 54.2% use deep litter at endline and 44.4% used the basket method, with 1.4% "other". While more comparison respondents used deep litter (58%), less used the basket method (33.3%) and 8% used other methods, as compared with chicken producer participants.

Table 21: Practice of chick care

	Baseline	Midline	Endline	
	Not applicable	n=396	Participant (n=412)	Comparison (n=152)
Does your household practice chick care	Not available	22.4%	30.3% • 31.8% female: 29.1% male • 35.9% Ntchisi: 26.5% Dowa	0%

An average of 16.28 chicks per chicken producer participant household were raised through chick care in the past 12 months for both Dowa and Ntchisi, higher compared with 10.2 at midline. The baseline did not report on this.

The participants actually took an average of 13 days after birth to put chicks into chick care, and it takes an average of 3 weeks before they are released. The hens whose chicks are in chick care take an average of 4 weeks to start laying eggs. The findings nearly agree with what was reported at midline.

Type of feed given to chicks while in care, as per the participants, included: home-made chicken feed (31.8%), chick marsh (0.7%), growers marsh (0.7 roasted marsh (2.7%), maize bran (55.4%), fish meal (1.4%) and water (2.0%).

FGDs with chicken groups indicated that they understand the chick care process and purpose. They generally reported that at the age of three weeks, chicks are separated from their mother and put in basket-like structure. The chicks are then fed a variety of feed including homemade meals with combinations of soya+fish+Khobwe meal, maize bran, clean water and other feed types. The chicks are safe and their mother immediately mates again to start laying eggs. This was said to increase the numbers of chickens in a short time. This authenticated the findings from the household interviews. Chick care is seen to lead to the hens laying eggs frequently and the chicks mortality rate being reduced.

As shown in Table 22, the endline reported lower mortality rate (per household, an average of 2.11 chicks died while in chick care, an average of 1.29 chicks died after chick care and out of 10 chicks, 4 were dying before getting 8 weeks) than midline (an average of 2.5 chicks died while in chick care, an average of 1.8 chicks died after chick care and out of 10 chicks, 5.4 were dying before getting 8 weeks) than at midline. Furthermore, it was noted that not everyone is practicing chick care.

Reasons for not practicing chick care included: not trained (31.7%), not interested (14.7%), do not know chick care (5.3%), expensive (7.9%), do not trust chicken care (6.8%), required mentor (5.6%) and too lazy to practice (7.5%) and other reasons (20.3%). However, other FGDs indicated that most of the farmers use chick care with an exception of the participants from Nachisaka EPA who indicated that they did not practice because their chickens died.

Table 22: Mortality rate of chicks

Question	Midline (mean); n=396	Endline (mean; n=514)
How many chicks died while in chick care?	2.5	2.11

How many chicks died after chick care?	1.8	1.29
Before chick care, out of 10 how many chicks died before getting 8 weeks?	5.4	4.00

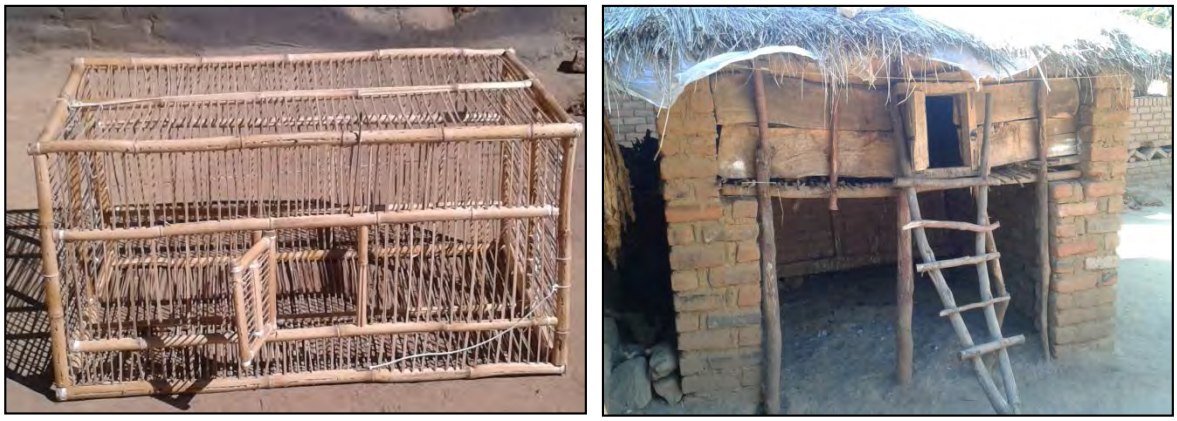

Figure 1: A Basket Chick Care (Left) and a Chicken Raised Kraal (Right)

4.3.3.6 Animal health services

The LLFs have reached out to more livestock producer group members' households, done more treatments and supported more animals than planned in the project life target. According to monitoring records, LLFs have reached to 11,626 households well above the 4500 targeted. In the process, they have provided a total of 147,692 treatments (target was 25,000) to 90,294 animals (against 26000 planned). Even the endline indicates that nearly 87.1% of the participants acknowledged that LLFs provided veterinary services in their households in the past 12 months (88.6 Male and 84.4% female). Of those that were served by animal health service providers, 92.1% of participants had used the animal health services in the previous months while fewer comparison households (43%) had actually used animal health services from elsewhere. While participants were visited by the animal health service providers by an average of around 6 times, comparison household was visited by animal health providers by an average of 5 times but with very high standard deviation (double observed in participants). Females were served more times than male participants (6 versus 5 times).

During the baseline, veterinary services were accessible to only 61.3% of the sampled households, with more access to males than females. Veterinary services were primarily found to be provided by the Assistant Veterinary Officers (AVOs) and some AVO assistants. Normally, the AVOs are supposed to be in each section of EPAs but because of high understaffing levels, one AVO mans several sections. Thus, the coming in of the LLFs has enhanced access of the animal health services.

Over the past 12 months, an average of about 10 chickens and 4 goats had received animal health care per household among participants, greater than the number of livestock reported to have received health care (about 9 chickens and 3 goats) among non-beneficiaries.

Table 23: Number of animals that received heath care

Type of household is your household	How many chickens did receive health care?	How many goats did receive health care?

Participant (n=514)	Mean	10.02	3.37
Comparison (n=202)	Mean	9.33	2.79

Goat and chicken mortality rates amongst target producer groups' households have been significantly reduced. According to PMEP document of Land O'Lakes, mortality rate is calculated by dividing number of goats/ chickens that die over the total number of goats by chickens that belong to the producers. This outcome indicator measures the extent to which the project reduced mortality among the livestock goats and chickens. Vaccination and deworming were some of the critical activities expected to reduce mortality. Additionally, promoting the adoption of good animal housing and animal feeds was also to help prevent mortality of livestock.

Adopting the aforementioned formula, the endline came up with the mortality rate of 4% and 6% for goats and chicken, respectively. The mortality rates were 23% for goats and 57% for chickens at baseline while the project targeted reduction to 14% and 32% respectively. The results imply that mortality rates have been significantly reduced due to good animal husbandry practices promoted by the project especially through the LLF approach. Even FGDs with participants attest that the animal health services have been fostered as tipped by the below quotes of female FGDs from Malomo EPA for chickens;

"The LLFs in this area provide drugs and vaccines to chickens especially the ones that are sick or feared sick. Mostly, we are satisfied with these services because the health of chickens is improving. Of course, how to access the money to pay for the service fee is not that easy for many of us. We have not noticed any chick dead over the past 12 months"

"The LLFs provide vaccines and drugs to our goats whenever the animals are sick. They also advise us not keep goats in wet khola to prevent some diseases that come because of wet condition. We are quite satisfied with the services because our goats look healthy now than before this project started. When goats are treated, we pay for such service at K100 per goat treated. However, we do not see this as a challenge because the money enables the LLFs to buy another set of vaccines and drugs".

However, an isolated incident at Nachisaka EPA was noted whereby unexpected negative consequences from the project occurred. A government staff reported that about 186 chickens died soon after distribution to beneficiaries. The then unknown outbreak was reported by the KIIs and FGDs to have been spread to other chickens in the community, aggravating the incident. Actions were undertaken, whereby Land O'Lakes' animal health expert worked hard to diagnose the outbreak though it did not work. It was also reported that samples were submitted to Lilongwe at the Livestock Department for laboratory analysis but the outbreak was equally not diagnosed. This led to speculations that the problem could have been stress on the animals due to long distance travel though this could not explain how it got spread to other chickens. However, either way, it is recommended that future projects minimise this enigma by sourcing chickens near the distribution area to avoid long distance travel and importation of outbreaks in the area of impact. Land O'Lakes understood that the project intended to bring positive impact and not vice versa, thus, the households affected were compensated.

On the sources of money for paying animal health services, it was noted that more participants (32.2%) indicated to use money from the VSLA than the comparison (1.3%). While only 2.2% of participants sold livestock to get money to pay for animal health services, 4.0% comparison did the same.

Furthermore, about 14% of participants and 4% of comparison indicated to use money from small scale business. Interestingly, fewer participants (24.9%) did casual labour than the comparison (45.3%) to pay for livestock services. Finally, more participant respondents (29.3%) got money from selling crops than comparison (25.3%). See Table 24.

The results indicate that the project has had impact on the participants because of the following:

- They are now taking advantage of VSLA income and investing it in their livestock business.
- Fewer of the participants sell livestock anyhow. This was corroborated in one of the key informant interviews with LLF who said that since livestock business training, they no longer sell livestock anyhow; they first need to plan. This is confirmed since more participants relied on small-scale business to pay for the services than the comparison.
- More households are using the savings for enhancing animal farm enterprise development
- Fewer participants now rely on casual labour as a source of money for paying services but rather on selling crops and other aforementioned sources. This could mean they are increasingly relying on VSLAs and farming, thus becoming more resilient than comparison.

Table 24: Source of money for animal health services

Source of money for animal health services	Type of respondent	
	Participant (n=514)	Comparison (n=202)
VSLA	32.2%	1.3%
Sold livestock	2.2%	4.0%
Household savings	1.8%	1.3%
Proceeds from small businesses	13.9%	4.0%
Casual labour	24.9%	45.3%
Selling crops	29.3%	25.3%

The majority of participants (55.1%) rated their animal health service provider (i.e. LLF) as very good, followed by those that rated theirs as excellent (20.9 %), average (12.6%), poor (4.1%) and very poor (7.2%). This implies that about 75% of participants regarded their animal health provider as either excellent or very good. Comparing with the non-participants, the majority rated slightly lower (about 65% rated theirs either very good or excellent). Notably, the midline reported that 89% rated the LLFs as either excellent or very poor, refer to Table 25. Despite that the baseline did not report in this format, their FGDs revealed that the services were offered by community animal health workers (CAHWs) who have limited skills and keep on referring back to the already insufficient AVOs. Thus, this gives an idea on how the respondents could have quantitatively rated the CAHWs.

Table 25: Rating of animal health service provider

How do you rate overall work of the LLF or any animal health service provider?	Midline	Endline	
	n=192	Participant n=459	Comparison n=103
Very poor	2.4%	7.2%	14.6%
Poor	1.2%	4.1%	5.8%

Average	7.1%	12.6%	15.5%
Very good	31.2%	55.1%	49.5%
Excellent	58.2%	20.9%	14.6%
Total	100%	100.0%	100.0%

Furthermore, Table 26 indicates that participates rated their animal health provider better in most of the aspects, including cost, customer care, frequency, training, than non-participants. The differences could be attributed to the intensive trainings that the LLFs went through in the L4R project.

Table 26: Rating of LLFs in terms of price, customer care, frequency of service and training

Type of respondents		On a rate of 1 to 10 how can you rate the work of LLF in terms of price?	On a rate of 1 to 10 how can you rate the work of LLF in terms of customer care?	On a rate of 1 to 10 how can you rate the work of LLF in terms of frequency?	On a rate of 1 to 10 how can you rate the work of LLF in terms of training?
Participant (n=514)	Mean	10	8.72	9.78	10.0
Comparison (n=202)	Mean	10	6.94	7.90	8.43

FGDs indicated that participants acknowledge the work conducted by the LLFs, indicating that they treat their animals, administer vaccinations and deworming services. The participants indicated that this makes them have healthy animals unlike before when chickens could wipe out due to New Castle and goats could easily die of diseases. The challenge mentioned was how to pay for the services, otherwise, the services are said to have helped improve the situation by reducing cases of animal death. Below is a quote from goat male farmers in Chipuka EPA:

"They [LLFs] also provide vaccines and drugs at a fee of MWK600 [$0.9] per goat and MWK30 [$0.04] per chicken"

According to KII notes, the major criterion used to select the LLFs was literacy. All the LLFs indicated that they were chosen because they are able to read and write. Furthermore, they also indicated that their commitment to development work prompted community members to nominate them. The LLFs are excited to serve in their communities since they have learnt quite a lot on livestock husbandry. They also feel proud to see communities experiencing increased livestock asset base leading to improved households. Ultimately the fee that members pay is the ultimate motivator. Below is a quote from one of the LLFs;

"Apart from knowing how to take care of animals, I also sell livestock drugs such as Abendazle and Pirazine. As for the community livestock is really multiplying and are protected from diarrhoea".

Some of the challenges encountered are that at the beginning, community members were not demanding the services but with time, demand surged. One of the female LLF from Nachisaka indicated that communities have negative perception on women having to castrate their animals hence she did not offer the service. Below is a sample of the charges:

- Vaccinating a chicken MWK30 ($0.04) per Chicken

- Deworming a Chicken MWK500 ($0.7)per teaspoon
- Deworming a goat MWK250 ($0.4) per one drug

The most popular services are deworming and vaccination. Net monthly income for LLFs is $10.01 (10.58 female and 9.69 male) against the target in the project life of $50. According to the LLFs, all the topics in which they were trained in were useful. Furthermore, the most difficult topic was on how to administer the right dosage of drugs. According to the LLFs, they preferred if L4R had increased days of training so that topics like injection of drugs are covered. The significant challenges that LLFs are facing are poor attendance and limited understanding of participants due to low literacy. The problems are mitigated by imposing a penalty on the absentees and training at a slow pace respectively.

Lastly, all the LLFs indicated plans to continue offering the services after L4R to support their households and help their communities. AVOs and AEDOs also pledged to continue implementing the project in the absence of Land O'Lakes. The below quote from Malomo EPA AVO is typical of what other government staff indicated:

> *"I will continue facilitating the trainings because it is my job and I will be backstopping L4R. In addition to that farmers are organised such that whenever there is a problem they visit our officers. L4R will help in vaccination and deworming. There are minor cases like Newcastle; they just work hard in vaccination. The main problem that we deal with such as ORF, they can't do it because it requires injection".*

4.3.3.7 Record keeping

Another improved practice promoted was record keeping. This is imperative, especially as small-scale-farming is increasingly being commercialised. Only about 12% of the participants kept records, far better than 3% of the comparison. The finding is also better than the 6.7% reported at baseline and 8.6% at midline. While change has taken place, it is not very significant. Generally, there is normally low uptake of record keeping among small-scale farmers partly due to high illiteracy levels which affect how they comprehend and perceive it in terms of its relevance to their immediate farming needs. Of the participants who kept records, 90.2% were on production, 26.8% on animal health, 14.6% on sales and the rest were not sure of what records they kept. All the comparison responded who kept records indicated to keep on production, 66.7% on sales while none kept on animal health despite being very critical.

According to FGDs, participants confessed to have received record keeping trainings and practising what they learnt. Some of the records mentioned are as follows: date of birth, mating and conception. Others indicated that they are not practising because of the following reasons:

- They report to LLFs who keep records so they do not see any reason for keeping the same as well.
- Some of them indicated that they are busy with other things, so they are fine as long as they remember the things which could be kept in the records.
- Few indicated that they do not know how to keep them.

The aforementioned assertions reveal that despite being trained, the perception on the significance of financial records among majority of the participants leaves a lot to be desired and suffered because it was not a priority to them.

4.3.4 Village Savings and Loans Associations

The project worked with 150 VAs to facilitate formation of 300 VSLAs. Of the groups, 65% are functioning properly, surpassing the 50% targeted. According to PMEP, functioning VSLAs are those that have constitutions and by-laws, hold regular meetings, collect member contribution on time and collect repayments and internal loans on time.

Monitoring information reveal that of the targeted 6,000 households (3,000 FHHs) earmarked for training in savings and loans association, 5,817 (2, 640 males and 3,177 females) were trained. While the project targeted US$30,000 as amount saved in the VSLAs, US$108,178 was actually saved at the end of project life.

In terms of membership to VSLAs, the study showed that 97.0% of the participants (99.2% females and 93.3% males) sample belonged to VSLA groups which were being facilitated by LOL in the project impact areas while only 58.1% indicated to belong to VSLAs in the comparison areas. During the baseline, over half of all respondents (56.4%) expressed that a member of their household had money in a VSLA. The difference could be attributed to mobilisation of farmers, capacity building, monitoring and follow ups by Village Agents (VAs) initiated in the L4R project.

Similar results were noted at district level. The endline reported that 96.6% of the participant sample belonged to VSLA in Dowa while 99.2% of the participants belonged to VSLA in Ntchisi. Comparing the foregoing findings to the baseline; Dowa reported 46% while Ntchisi was 68%. Thus, there has been a great increase in the number of members participating in VSLA at district level, more especially for Dowa. In both districts, women form a greater proportion of the membership of VSLA than men.

While participants had an average savings of MWK31, 594.75 ($45), comparison had MWK18, 312.64 ($26) in VSLAs. The former surpasses not only the comparison but also amount of savings reported at baseline which was MWK27, 614 ($39).

4.3.4.1 Access to loans

The majority (88%) of participants had accessed loans from VSLAs in the last 12 months, which was more than the comparison group (81%); this was not reported at baseline. This shows that there is expectedly high access to loans among the members of VSLAs in both categories of respondents since they do not require capital as opposed to commercial banks; this is the very reason the VSLAs are promoted. While each household (whether participant or non-participant) had accessed loans 3 times on average, participant household had accessed more than twice amount of comparison (MK40, 185/$57 participant a versus MK15, 389/$22 comparison).

On the question of how the respondents rated accessibility of loans before and after L4R, 43% said that it was better after L4R than before. About 25% rated it to as just better while 7% though nothing had change and about 25% were not able to rate (did not understand what to do). Furthermore, on the ability to recover from unexpected shocks, 39% indicated that they are very much better now than before. About 26% indicated that recovery from unexpected shocks is just better. On the same, about 22% did not understand how to rate.

Table 27: Access to loan after L4R VSLA

How do you rate access to loans now as compared to before L4R VSLA? (n=406)	Option	Response
	Same	7.6%
	Better	25.1%
	Much better	43.6%
	Don't know	23.6%

Total		100%

Though the majority of the participants benefit and access credit facility from the VSLAs, there are some that are not accessing the facility. Reasons for failure to access to credit included (n=39): in Dowa, high interest rates (15.8%), inadequate funds (47.4%), and other reasons (36.8%). In Ntchisi, high interest rates (10.0%), short repayment period (5.0%) inadequate funds (15.0%) and other reasons (70.0%).

Many participant households which collect loans from VSLAs use it for household consumption (44.2%) followed by those that use to start a business (28.9%) and the rest were mentioned by few participants refer to Table 28 for details. Nevertheless, there was slightly better allocation of loans to agriculture among the participants (investing in crops-5.8%; chicken purchase-1.6%; livestock health-2.6%; purchase of other livestock-0.5%) than the comparison respondents (investing in crops-1.3%; chicken purchase-1.3%; livestock health-0.0%; purchase of other livestock-0.0%). In addition, VSLA savings were also used in similar manner save for inclusion of school fees, seed and chemical fertilisers. Despite the quantitative findings reporting lower figures on use of loans in livestock, FGDs and KIIs revealed that the significant number of participants use money from the VSLA to buy livestock.

Table 28: Use of VSLA loans

What do you use the loans from VSLA for?	Participant (n=190)	Comparison (n=78)
Invest in crop farming	5.8%	1.3%
Chicken purchase	1.6%	1.3%
Livestock health	2.1%	0.0%
Purchase of other livestock	0.5%	0.0%
Household consumers	44.2%	32.1%
Business start up	28.9%	42.3%
Use on social events	25.8%	12.8%
Agriculture equipment	5.8%	0.0%
House construction/repair	5.8%	9.0%
Other	4.2%	14.1%

On those that use either VSLA loan or savings on food majority (about 74%: 85.7% FHH and 64.8% MHHs) use it to buy maize, a national proxy indicator for food security. Such finding inform on the impact that the project has made on the food security, especially of the FHHs. Some of the food items on which the VSLA income is spent as shown in Table 29 are as follows: meat (18.6%); fish (16.5%) and eggs (8.2%). As noted from Table 29, generally fewer comparison respondents mentioned the food stuffs than the participants. This might imply that the foodstuffs are unaffordable to them and thus their diets appear less diversified as compared with the participants.

Table 29: Use of VSLA money on food

If money used on food, what kind of food?	Type of respondent	
	Participant (n=194)	Comparison (n=49)
Maize	74.2%	63.3%
Other cereals	2.1%	2.0%
Legumes	6.7%	0.0%
Meat	18.6%	10.2%
Eggs	8.2%	4.1%
Fish	16.5%	8.2%
Vegetables	4.1%	0.0%

Other foods	3.6%	26.5%

4.3.4.2 Village Agents

The project met its target of identifying and building capacity of 150 VAs which were required to service the 300 VSLAs. The VAs have trained a total of 5,817 individuals and served about 30.000 individuals according to monitoring data. The community members participating in VSLAs rated the performance of VAs highly. The performance and delivery of services to the VSLA was rated as excellent by 40.6% of the participants surveyed, very well by 32.2%, average by 22.2% and bad by 5%. As community based trainers, VAs are adequately providing financial trainings to the community members as envisaged. Use of VAs has led to the expansion of VSLAs. VAs train VSLAs, eliminating the need for long-term external technical support.

The criteria for selecting VAs were reported to be similar with the LLF. The VA had to be literate and interested in development work. The VAs also feel good and motivated to serve their communities in the enhancement of VSLAs. The VAs reported to have experienced impacts in their households during the project period. The impact has also been made on VSLA members. The below quotes best illustrates how resilient the VA and member households have become:

"I have bought maize, livestock, seed, fertilizer and meeting household basic needs such as soap and relish, The money is used after been cashed from the bank. For example, last year I had K74 000 and other members use this money as a capital for different businesses, others use it for school fees and others use it to buy farm inputs".

"My household had 8 Chickens before VSLA but now we have 18 Chickens. When I earned the money last year, MWK19, 000 [$21], I bought 10 Chickens. Other farmers earned more than me e.g. MWK75, 000 [$107] and used the money to buy fertilizers, seeds and livestock"

The VAs indicated to have gone through trainings under the L4R where among other topics mentioned were as follows: Shares; insurance; emergency; business plan development; report writing; importance of VSLA; how to deposit money in the group; loans and interests. The VAs reported to be satisfied with the content presentation and materials. The most useful topics were depositing money and business plan because they were colossally deficient in terms of knowledge and skills of the former and are able to know what goes in and out of the farming business due to the latter. The VAs faced challenges in administering topics and facilitating adoption of interest, group entry fee and emergency fees. For instance, it took time for VSLA members to understand that interest would be given to not only those who borrow the money but also others who have shares even though they did not obtain loans. What the VAs thought could have been improved in the L4R project was provision of trainings on marketing, and facilitating linkages of the producer groups to markets.

Such immense benefits of the VSLAs inspire them to continue their roles; all the VAs consulted indicated that demand of their services is very high and that they are willingness to carry on their duties beyond the life of the project.

4.3.4.3 Bank account ownership

About 17.5% of participants owned bank accounts against 8.5% of the comparison. The percent of the participants is slightly higher than at the baseline (17.2%). Possibly, those savings might be overflowing from the VSLA activities. On average, the participants have savings in their bank accounts amounting to MWK35, 235.35 ($50) and the comparison is MWK23, 623.33 ($34). The saving culture is among

both male and female. Men have an average of MWK37, 166.75 ($53) in bank, while women have savings with the bank of an average of MWK30, 600.00 ($44).

4.3.4.4 Improved business practices

Another assignment for the VAs was to train VSLA members on improved business practices concerning VSLAs, measured by participation of measured by participation in VSLAs or saving in banks and keeping of financial records. The endline reveals that 26.7% of participant households (27.2% female and 26.3%) practiced the improved business practices, substantially lower than the targeted 75% though well above the 8.6% (10.9% male and 8.1% females) at midline and probably very much well above the baseline not reported. The deficit is largely due to low adoption of financial record keeping which is not a surprise among the many lowly educated farmers. Part of this deficit may also be the underachievement in training household members in household economics reported in the following section.

The FGDs concurred with the quantitative findings that few farmers keep records because of the reasons that they are busy with other endeavours hence they do not need to do the same. Thus, as much as they were trained, the perception remains largely negative among majority, possibly due to low education levels.

4.3.4.5 Household economics

L4R also focused on training the participants on household economics. According to PMEP of the Land O'Lakes, the indicator measured household members' exposure to household enterprise trainings at community level. The project planned to drill household members (both men and women) in: skills building and knowledge transfer approach focusing on seasonal income and expenditures, basic business skills (including financial literacy and the concepts of profitability, cash flow, savings, loans and record-keeping); household economics (including planning for the health and nutrition of family members); the success of on-farm enterprises; and the protection of assets. Monitoring data indicates that only 10,360 (5,543 females and 4,818 males) were trained, against the 18,000 (9,000 females and 9,000 males targeted. Interestingly, this indicates that more women were trained as from the results, hence empowering them for gender balance.

Furthermore, the endline asked if the respondents had ever received training in household enterprise planning and development. About 37% of participants (n=407) indicated to have received it while the comparison had slightly lower percentage of households receiving the same kind of trainings (34%, n= 88). The comparison group could have reported much lower than the 34% because majority of respondents in this category did not answer this question because they had no idea about it as indicated in the sample size that responded. When probed further on what kind of trainings received; a larger proportion of participants reported to have received various kinds of trainings than comparison as shown in Table 30. While the proportion difference between the participants and comparison was not very significant on enterprise selection, more pronounced differences were noted on food usage (11.5% participants and 0.0% comparison), business plan development (26.6% participant and 6.5% comparison) and other practices (17.3% participants and 6.5% comparison. This means that the participants not only had higher proportion of adopters of household economics but also a wide variety of skills than the comparison which reported significantly only on enterprise selection.

Table 30: Household economics

Type of training	Percent of cases	
	Participant (n=514)	Comparison (n=202)
Enterprise selection	77.0	63.5
Food usage	11.5	0.0

Business plan development	26.6	6.5
Other practices	17.3	6.5

Note: the percentages do not add up to 100 because it was a multiple response question.

The VA KIIs remembered largely to have trained participants on savings, business plan development, buying of shares, marketing of livestock, setting of business goals and making of cash flows. FGDs with participants stressed that the project taught them how to treat livestock farming as business.

4.3.4.6 Coping mechanisms

The survey asked the participants how they deal with shocks. Many (43.1%) of the respondents indicated that they obtain a loan from the VSLA as a coping strategy. Other participants (11.4%) use money they saved in the VSLA, while others resort to casual labour (16.3%) and selling crops (11.7%). Only 5.1% sold goats (refer to Table 31). It is noted when compared with the comparison that more participants relied on VSLAs than comparison respondents. This indicates that VSLAs have played a role in enhancing resilience of households. As for the comparison, majority rely on the casual labour which might be an indicator for dependence and vulnerability.

Table 31: Coping mechanisms when unexpected expenditure occurs

Coping mechanisms	Participants (n=369)	Comparison (n=114)
Use money saved in the VSLA	11.4%	2.6%
Obtain loan from the VSLA	43.1%	35.1%
Sell goats	5.1%	5.3%
Sell chickens	6.0%	1.8%
Sell other livestock assets	0.5%	0.9%
Beg from kin	0.5%	0.0%
Casual labour	16.3%	39.5%
Sell crops	11.7%	12.3%
Other	5.4%	2.6%

4.3.4.7 Saved earnings from the business to VSLA

A considerable number of participants sampled save money from their businesses into the VSLA. Asked on how often they saved money from the business to VSLAs, 28% indicated to have done many times, 35% several times, 21.3% once or twice, while only 14.8% never. This means that about 85% of the households had saved their money from the business to VSLA at least once. Looking at the results in Table 32, more participants had saved slightly more times than comparison respondents.

Table 32: Saved earnings from the business to VSLA

Saving frequency	Participant (n=263)	Comparison (n=50)
Never	14.8%	20%
Once or twice	21.3%	4.0%
Several times	35.0%	54.0%
Many times	28.9%	22.0%

4.3.4.8 Times of saving earnings from the livestock to VSLA

Livestock is providing a source of income to the participants. The participants are using VSLA as a model to save earnings from livestock sale. Twenty three percent (23.9%) pointed out that on several occasions they have saved funds earned from livestock in VSLA (refer to Table 33). During the baseline, there was no one who was saving their livestock earnings in the VSLA. The project has enabled the participants to own livestock which they are able to sell thereby becoming more economic resilient. The VSLA is enabling the participants to embrace the saving culture.

Table 33: Times of saving earnings from the livestock to VSLA

Response	Participant (n=218)	Comparison(n=21)
Never	49.5%	66.7%
Once or twice	20.6%	33.3%
Several times	23.9%	0.0%
Many times	6.0%	0.0%

4.3.5 Household decision making

Men dominate decision making regarding household expenditure as indicated by about 70% of the participants sampled, versus 53% in the comparison. Comparison households made more joint decisions on household expenditures than the participant households (32.2% versus 16.7%). The baseline reported qualitatively, that men also dominated decision making. However, women FGDs as reported in the baseline indicated that sometimes it varies, with women making more decisions on smaller livestock such as chickens than men.

The survey also asked participants about who made their decision on purchase of goats and chickens before and after the project. The results show that in more households, the women make the decision to purchase goats (79.4%), while it is the men that make the decision to purchase chickens (67.5%). This is surprising as a goat is a more expensive purchase. The proportion of households where the woman made the decision to purchase chickens did increase substantially after participation in the project (18.2% versus 3.2%), while it remained about the same for goats.

Conversely, more households indicated that women make the decision about the slaughter of chickens (69.8%), while men make the decision on the slaughter of goats (80.6%). KIIs also underlined that women participation and empowerment have been enhanced, thus, a considerable number of women is now making decisions in some aspects as highlighted by Table 34.

Table 34: Household decision making

Aspect	Men	Women	Both	Children
	% (those in brackets are for comparison)			
Household expenditure	69.5 (53.0)	13.6 (13.4)	16.7 (32.2)	0.2 (1.5)
Decision to purchase chicken before LOL	88.3	3.2	8.5	-
Decision to purchase chicken now (after LOL)	67.5	18.17	13.8	-
Decision to purchase goats before LOL	17.4	76.0	6.6	-
Decision to purchase goats after LOL	17.0	79.4	3.5	-
Decision to slaughter chicken	29.6 (25)	69.8 (75)	0.5 (0)	-
Decision to slaughter goats	80.6 (86)	19.4 (13.5)	-	-
Decision on intra-household allocation after chicken is slaughtered	11.5 (10.7)	88.3 (89.3)	0.3(0)	-
Decision on intra-household allocation after goat is slaughtered	34.0 (46.2)	66.0 (53.8)	-	-

4.3.6 Food security impact

L4R further aimed at improving food and nutrition security situation of the vulnerable households. The results from the final evaluation indicate that the household dietary diversity score increased for participants after the project to 4.03 at endline from 3.3 at baseline, and 3.3 in the comparison group (Table 35).

While most households consumed grain, roots and tubers at both final evaluation and baseline (91.3% and 100% respectively), the consumption of dairy (33% versus 21.3%), organ meat (12.8% versus 1.3%), eggs (5.5% to 19%) and flesh foods (5.5% to 16.7%) increased greatly. Interestingly, participant households were more likely to consume the following more than the comparison group: dairy (22.1% versus 9.7%), organ meat (12.8% versus 2.2%) and flesh foods (16.7% versus 7%). There was also a slight difference in consumption of eggs (19.0% versus 16.2%), but not as expected with the chicken farmers having more access to eggs (Table 36).

Table 35: Household Dietary Diversification Score

Household Dietary Diversification Scores (HDDS)					
Baseline (N=385)	Midline (N=180)	ENDLINE			
		Comparison (n=202)	Participant (n=514)	Participants by sex	
				MHH (n=352)	FHH (n=162)
3.3	3.3	3.3	4.03	3.99	4.15

Table 36: Food Groups consumed in the past 24 hours

Food Group	Baseline (N=385)	Midline (N=180)	Endline			
			Household Type		Participants' Sex	
			Participants (n=514)	Comparison (n=202)	MHH (n=352)	FHHs (n=162)
grain, roots and tubers	100%	99.7%	91.3%	94.6%	93.9%	88.8%
other fruits and vegetables	21.3%	17.0%	33.0%	37.8%	35.3%	32.2%
Dairy	2.9%	4.9%	22.1%	9.7%	20.6%	14.5%
organ meat	1.3%	1.8%	12.8%	2.2%	10.7%	7.9%
Eggs	5.5%	4.6%	19.0%	16.2%	16.2%	22.4%
flesh foods	5.5%	14.3%	16.7%	7.0%	13.6%	15.0%
vitamins A rich vegetables	76.0%	81.8%	42.3%	36.8%	43.9%	34.1%

vegetables and fruits	46.4%	65.2%	39.0%	34.1%	39.9%	32.7%
legumes and nuts	45.6%	40.2%	39.6%	35.7%	43.9%	27.1%
Fats			42.1%	32.4%	45.6%	26.2%

4.3.7 Households that hired labour

Malawi L4R also aimed at creating vibrant livelihood within the targeted areas. Apart from impacting on the direct beneficiaries, the project desired to spill-over to the whole communities through creation of employment opportunities. To understand this effect, a question was asked to project participants to establish if they hired any person in their livestock business. Findings (Table 37) show that only 10% of project participants hired someone in their livestock business. This can be attributed to the fact that most animals distributed through the project have not yet multiplied thereby demanding less labour and not providing enough to hire labour. However, the project has strong potential to create more employment opportunities once the livestock asset base has expanded.

Table 37: Job creation in impact areas

	Were you or any member of the household hired any one to work on your livestock business					
	Baseline	Midline	Endline			
			Category		Participants' Job Creation by Gender	
			Comparison (n=202)	Participants (n=514)	Male (n=334)	Female (n=180)
No			100%	89.5%	90.4%	88.0%
Yes			0%	10.5%	9.6%	12.0%

As indicated in Table 38, further analysis of job creation by the project showed that the beneficiaries hired an average of 2 individuals, who worked for an average of 4 hours per week with an average of 4 months per annum. Again, if the livestock asset base improves due to improved access to veterinary services and adoption of good husbandry practices, more job opportunities will be created in the impact areas.

Table 38: Summary statistics on job creation by the project

Summary statistics for job creation by project's participants (n=54)				
	Minimum	Maximum	Mean	SD
Number of people hired	1	7	1.94	1.449
Hours per week worked by hired labor	1	20	4.33	3.902
Months per annum worked by hired labor	1	8	4.34	1.858

4.3.8 General impact from participant perspective

Participants were asked to directly give their perception on the change that they experienced as a result of the L4R on income, food security and soil fertility. Generally, a considerable number of households experienced positive impact. With reference to Table 39, about 30% of the participants indicated to have experienced improved soil fertility while about 29% and 11% experienced improved food and

nutrition and increased income respectively. The perception of the females on the impact is slightly different from males. This could be attributed to the fact that men dominated in decision making and thus would experience more benefits than women. Nonetheless, those that indicated "don't know" were substantial (30.4%) with women being in high proportion (47.4%). Probably, the women might have relatively been "shy" to give their opinion which is normal in the communities where the study was undertaken. If this was not the case, the findings were likely going to be different. Similar trend is also noted in Table 40 for goat impact and Table 41 for egg production impact. On another note, it is very likely that the majority will experience more tangible impact in future as the livestock proliferate, with emphasis on goats which take more time to reproduce than chickens.

KIIs and FGDs were more revealing and in-depth in describing the impact that the project has made. Many households are food resilient now: income from chickens is used by some households to buy maize; manure from the livestock is used to fertilize maize, a food security crop. Some of the income from the livestock, especially chickens, is used for schooling of participant children. To other households, mere presence of the livestock is for general security used during eventualities and social activities such as funeral, sicknesses, visitors and cerebrations.

Table 39: Impact of chicken farming on household livelihood since joining L4R

Impact	Sex of the L4R participant		
	Male (n=247)	Female (n=135)	Total (n=382)
Increased income	13.4%	6.1%	11.0%
Improved food and nutrition	28.3%	28.9%	28.5%
Improved soil fertility	37.2%	17.0%	30.1%
Don't know	21.1%	47.4%	30.4%
Total	100%	100%	100%

Table 40: Impact of goat farming on household livelihood since joining L4R project

Impact	Sex of the L4R participant		
	Male (n=250)	Female (n=153)	Total (n=402)
Increased income	34.8%	29.6%	32.8%
Improved food and nutrition	10.0%	9.9%	10.0%
Improved soil fertility	35.6%	15.8%	28.1%
Don't know	19.6%	44.7%	29.1%
Total	100%	100%	100%

Table 41: Impact of egg production on household livelihood since joining L4R project

Impact (n=271)	Sex of the L4R participant		
	Male (n=157)	Female (n=114)	Total (n=271)
Increased income	17.8%	3.5%	11.8%
Improved food and nutrition	14.6%	13.2%	14.0%
Easy access to relish	31.2%	18.4	25.8%
Don't know	36.3%	64.9%	48.3%
Total	100%	100%	100%

4.3.8.1 The most important livestock species

The endline evaluation further probed the perception of participants on the most important livestock types amongst the livestock species that the L4R project was promoting, it has been noted that goat is ranking high as most important animal species as indicated by 45.3% of participants. Chicken is the second most important livestock species after goats (40%). Cattle and other livestock in total appealed to about 15% of the participants. However, there were differences as to what is more important in the districts between goats and chicken. In Dowa, about 48.1% of the respondents considered goat most important while in Ntchisi, chicken was pointed out to be the most important livestock species with 51.0% indicating so (Table 42).

Table 42: The most important livestock for household livelihood

Animal Species (n=448)	%Case
Chicken	40%
Goat	45.3%
Cattle	8.9%
Other	5.8%%
Total	100%

4.4 Efficiency of the project

Through KIIs and project reports, the endline endeavoured to address issues on efficiency of the project. Generally, the key question under this was whether resources and activities provided by the L4R program were distributed or carried out in a timely manner. Internally, activities that were provided by Land O' Lakes were reported to be done in accordance to the schedule.

Government staff who participated in the project also generally indicated that whenever they were to facilitate trainings, support resources (food, financial and material resources) were timely provided to them. Whenever, there were challenges, the government staff indicated that L4R addressed them swiftly.

However, the major challenge was on distribution of livestock. The suppliers engaged had limited capacity to supply up to standard livestock, particularly chickens. It was reported that majority of chickens supplied were not declared fit whenever inspected by Land O'Lakes personnel. For instance, government KI from Nachisaka EPA indicated that out of 1000 chicks, only 200 would be selected. This, according to monitoring reports, led to pulling out of suppliers after getting first payment. Below is a quote from one KI from Bowe EPA:

"All resources were provided timely except a supplier who delayed to deliver chickens"

Furthermore, L4R staff indicated that the whole management of the project was sound, enabling efficiency of operations. The suppliers were reported to have provided only goats timely; chickens were not. However, Land O'Lakes was up to date with the ground and that it duly adjusted its procurement approaches and procedures to ensure that all who were supposed to receive livestock, actually received. For instance, it engaged more suppliers for synergism.

Lastly, another essential component of the project that underpinned cost-effectiveness is the enhancement of farmer to farmer extension linkage. The LLF and VA models were able to reach out to 300 producers groups and beyond with their services. Had it been all these services were provided by

L4R staff alone, they could not only require more financial resources but also human, material and time resources.

4.5 Gender mainstreaming findings based on KIIs

KIIs generally supported the quantitative findings that gender mainstreaming was ample in the project. The L4R approach to gender equality and gender equity ensured balanced involvement of men and women. It stressed much that women should be considered for active participation in the project. Women, who mostly lag behind especially on leadership, were fully engaged. It was highlighted that the LLFs and VAs substantially comprised women. Interestingly, men who hardly joined VSLAs before the project were also reported to participate under the same. However, more men than women are still found in goat producer groups despite with the latter beginning to join goat keeping. Below is one of the quotes:

"We could see a good number of women benefitting from the livestock in this project. In the past, men dominated in keeping goats, but now the numbers are twisting."

Furthermore, the project has also managed to improve balanced decision making as far as men and women are concerned; women are now able to make decisions at household level because they are empowered. For instance, the project deliberatively empowered women by providing 60% of the distributed chickens to women, according to L4R staff.

4.6 Key weaknesses and strengths of the project

Based on both the quantitative and qualitative findings of the endline, the evaluation team came up with both key weaknesses and strengths of the project.

4.6.1 Weaknesses

Three key weaknesses were identified in the project. The ultimate weakness of the project was its short project lifespan (23 months) considering the huge volume of activities and the impact the project endeavoured to achieve. A significant number of activities relied on building capacity and promoting adoption of appropriate animal husbandry practices and savings. According to diffusion theory on adoption of technologies, it takes time for over half of potential adopters to adopt because in a population, only about a quarter are innovators or people who quickly adopt new innovations. Therefore, 23 months might not have been ample time to fully watch how majority adopted the useful practices such as chick care and record keeping which according to the endline recorded relatively low levels of adoption.

The approach of training of government officers (AVOs and AEDOs) was not appealing to some of the government stakeholders. The project did not have special workshop or extension officer focused classroom trainings for government staff. Instead, L4R staff just engaged the government staff as co-facilitators of farmer trainings when they equally lacked capacity especially in the VSLA aspect. Resultantly, the extension workers reported that they felt embarrassed to learn together with farmers who normally tap expertise from them.

Lastly, the project experienced livestock supply challenges; livestock were sourced outside localities hence travelled long distances which made them suffer fatigue. Thus, despite the rigorous checks by the L4R experts, some of the livestock died soon after being handed over to farmers with one of the factors mentioned as stress. The Nachisaka high chicken mortality as observed from KIIs and LOL might also be attributed to this in accordance to some reports from KIIs from the EPA.

4.6.2 Strengths

The project was also noted to possess unique strengths that future projects need to embrace. The first strength was appropriate targeting. The approach was just effective. As stakeholders narrated during KIIs, the approach managed to sieve serious farmers from "fortune seekers". When households in the impact area heard that there would be distribution of livestock, they used to turn up in large numbers. Such people were said to have included those looking for hand-outs as promoted by some NGOs in the area. However, many gave up when they heard that they would have to build raised khola and redeem the livestock. This only left the serious ones.

Another notable strength in the approach of the project worthy replication in future was on intensifying capacity building first before distribution of the livestock or allowing LLFs/VAs commence work. Usually, a lot of NGOs rush to implement distribution. With L4R, it could be expected that given the 23 months for implementation, distribution of livestock would be rushed. However, the opposite took place so that capacities of the recipients and facilitators are sufficiently built so they could take care of the livestock distributed.

Furthermore, distributing livestock to those that already have livestock was a good idea because they had threshold capacity to manage livestock. One of the government KIIs indicated that Action Aid had distributed chickens non-selectively in TA Msakambewa, even to those households that had no chickens and appropriate khola. Resultantly, the majority of the beneficiaries instantly sold the chickens to communities in TA Chiwere who were better off and had capacity to manage the livestock. Thus, the project misfired. Therefore, L4R has proved that targeting those that already have livestock is a best approach because it increases asset base and resilience to shocks.

In KIIs and FGDs, some farmers and government officers complained of not being given enough money for lunch allowance whenever L4R offered training. For sustainability, this was one of the strong areas of the project because it will be easier for government to continue offering trainings after getting used to the situation. In TA Malmo, a AVO indicated that World Vision Malawi used to give livestock farmers hefty allowances and as a result, the farmer did not attend functions of government or other organisations that do not offer or offer little money.

KIIs revealed that the project highly engaged government staff and local governing structures such as EPA staff, ADCs and local leaders. Government and local structures are permanent and thus were able to provide input in the programming; they will also be crucial for sustainability in the absences of the project.

Another strong area of the project is that it concentrated on a relatively small area and selected few beneficiaries for receiving livestock. While the majority of NGOs reach to implement in a wide range of district with the same funding, L4R was in two districts in selected communities. For instance, projects that work in many districts usually that distribute one livestock for each household which end up being sold because of insignificance, the project worked to distribute tangible numbers of livestock (4 hens and two does). The concentration on a reasonable area might also have led to reduction in expenses on travel.

Finally, engaging LLFs and VA was the ultimate strength for enhancing farmer-to-farmer extension linkage necessary for sustainability. Presently, government, the key extension provider reports that extension officer to farmer ratio is 1:3500 yet the acceptable ratio is 1:700. Reports indicate 40% of positions for government field extension workers are not filled. Therefore, in this context, it makes sense to rely on the farmer-to-Farmer advisory service. What the L4R project has done that is has not been done before is extensively building capacity of the LLFs and VAs and inspiring them to take up the challenge. As reported from the KIIs with them, they are more than excited to continue in the absence of L4R.

5 CONCLUSIONS

The goal of the project was to build resilience of disaster prone communities in Dowa and Ntchisi to withstand climatic and economic shocks. Such a project was noted to be very relevant to Malawi's context and the needs of the beneficiaries due to the devastating effects of climate change experienced which prompt calls to diversify farming by promoting livestock. Malawi's agricultural policies and strategies embrace livestock as one of the commodity priority areas. In building resilience of the communities, the project employed two main extension approaches namely LLFs and VAs.

To begin with, the project successfully identified and built the capacity of 150 LLFs to provide training and animal health services to 7,277 goat and chicken producers in 300 livestock groups. The project distributed one cock and 4 hens per household to 1,111 households and two does to 675 households. Each LLF was also given a buck for servicing does within the jurisdiction of the LLF. Through the LLFs, the project targeted 26,000 animals to be benefiting from or affected by livestock activities yet the actual number of animals reached is 90,294; 12,417 goats and 73,766 chickens. The difference is substantial and thus, it is an enormous achievement.

The majority of farmers are practicing improved animal husbandry and feed techniques which embraces the following practices: improved housing; improved feeding; animal health: improved breeding practices; and record keeping: about 72.4% (71.6%MHH and 74.1% FHH) of the participants applied at least 3 of the 5 practices, slightly lower than the 75% targeted in the project. Interestingly, more proportion of FHH practiced the improved husbandry practices than MHHs. This indicator is considered to be achieved because the difference is not significant. Furthermore, the percentage is far much above the baseline values (4%) and comparison respondents (24.8%).

About 65% of chicken farmers are practicing raised khola while about 63% of goat farmers are practicing raised khola. This is a huge leap from baseline (7.7% and 21.5% chicken and goat respectively). Despite that adoption of raised khola was a pre-requisite for the farmer to receive a livestock, field testimonies from FGDs indicated that farmers have now embraced raised khola due to observed benefits.

The majority of farmers are providing supplementary feeding to their livestock. It was noted from the study that 75.1% of the participants provide supplementary feed to goats as compared to 63.5% of comparison and 21.9% at baseline. On chicken, it was noted that 73.4% provide supplementary feed to chickens, compared to 70.5% of the comparison households and 48.7% at baseline. Interestingly, more female participants provide supplementary feeding than male participants. Furthermore, the study has shown that 30.3% of the chicken producer participants practiced chick care, higher compared with midterm review (22.4%) and baseline (insignificantly practiced). On animal health service, 92.1% of participants had used the animal health services in the previous months while fewer comparison households (43%) had actually used animal health services from elsewhere. Lastly, only about 12% of the participants kept records, far much better than 3% of the comparison the 6.7% reported at baseline and 8.6% at midline.

The LLFs have reached out to more livestock producer group members' households, done more treatments and supported more animals than planned in the project life target. They have reached to 11,626 households well above the 4500 targeted. In the process, they have provided a total of 147,692 treatments (target was 25,000) to 90,294 animals for 40,250 producer group members according to monitoring information. Nearly 87.1% of the participants acknowledged that LLFs served their households with veterinary services in their households in the past12 months. This is a significant achievement of the target of project life (75%). During the baseline, veterinary services were accessible to only 61.3% of the sampled households. About 85% of participants regarded their LLFs as either

excellent or very good. Comparing with the non-participants, the majority rated slightly lower (about 65% rated theirs either very good or excellent). Goat and chicken mortality rates amongst target producer groups' households have been significantly reduced to 4% and 6% at endline from 23% and 57% at baseline respectively. The findings are far much higher below what the project targeted (14% for goats and 32% for chicken). Interestingly, the LLFs are excited to continue performing after the project.

The project worked with 150 VAs whose capacities were built to facilitate formation of 300 VSLAs and train members in household economics. Of the groups, 65% are functioning properly (thus able to serve its members appropriately and submitting reports) according to monitoring data. This has surpassed the 50% targeted by the end of project life. Of the targeted 6,000 households earmarked for training in savings and loans association, 5,817 VSLA members were trained. While the project targeted a total of US$30,000 as amount loaned and saved in the VSLAs, US$108,178 was actually loaned and saved at the end of project life. About 26.7% of households (27.2% female and 26.3%male) practiced the improved business practices, well above the 8.6% (10.9 male 8.1% females) at midline. However, of the 18,000 set to receive household economics trainings, only 10,360 actually received.

In terms of membership to VSLAs, the study showed that 97.0% of the participants (99.2% females and 93.3% males) sample belonged to VSLA groups which were being facilitated by LOL in the project impact areas. During the baseline, over half of all respondents (56.4%) belonged to VSLA. While participants had an average savings of MK31, 594.75 in VSLAs, comparison had MK18, 312.64. The former surpasses not only the comparison but also amount of savings reported at baseline which was MK27, 614.00. More participants (88%) had accessed more loans than non-participants (81%) over the past 12 months. Benefits reported on VSLAs include using loans and savings for buying maize, livestock, seed, fertilizer and meeting household basic needs.

The good performance of the VSLA groups could be attributed to the services offered by the VAs. The participants rated the performance of the VAs as excellent by 40.6% of the participants surveyed, very well by 32.2%, average by 22.2% and bad by 5%. The VAs also indicated to continue servicing their communities to satisfy the high demand for their services.

A significant percentage of households has embraced improved business practices though lower than expected. About 27% of participant households (27.2% female and 26.3%) practiced the improved business practices, substantially lower than the targeted 75% though well above the 8.6% (10.9% male and 8.1% females) at midline and probably much lower at baseline. The deficit is largely due to low adoption of financial record keeping which is not a surprise among the many lowly educated farmers. Part of this deficit may also be the underachievement in training household members in household economics where only 10,360 (5,543 females and 4,818 males) were trained, against the 18,000 (9,000 females and 9000 males) targeted. Interestingly, this indicates that more women were trained as from the results.

The percentage of households which have experienced increased asset base has sharply increased and surpassed the targeted. The endline reports that 77.2% of the participant households (76.5% MHH and 78.4% FHH) experienced increase in livestock asset base over the project period. This is slightly above the project target of 75%. The midline reported 43% (48%MHH and 38%), indicating that the livestock asset base sharply increased from end last year to the end of the project. Average livestock asset base per participant household increased by 70% (MWK105, 594 /$150.85 at endline and MWK61, 933/$110.2 at baseline). Livestock asset base increased in the project due to the following: the improved practices and use of animal health services that helped to reduce mortality and promote reproduction; the distribution of animals directly; and the increase in savings that enabled them able to

invest in their livestock. All the aforementioned parameters have improved in practice from the baseline. Furthermore, 75.3% of the households had viable flock size of chicken (5 hens), slightly higher than 69% at baseline but lower than the 90% targeted in the project life span. About 37% of households had viable herd/flock size of goats (4 does), higher than the 15% at baseline and 26% comparison but slightly lower than the 40% targeted in the project life span.

The impact from the increased asset base and VSLA activities has spilled over to food security. The results from the final evaluation indicate that the household dietary diversity score increased for participants after the project to 4.03 at endline from 3.3 at baseline, and 3.3 in the comparison group. While most households consumed grain, roots and tubers at both baseline and final evaluation (91.3% and 100% respectively), the consumption of dairy (33% versus 21.3%), organ meat (12.8% versus 1.3%), eggs (5.5% to 19%) and flesh foods (5.5% to 16.7%) increased greatly. Furthermore, about 30% of the participants indicated to have experienced improved soil fertility while about 29% and 11% experienced improved food and nutrition and increased income respectively. Such benefits when validated with qualitative data indicate that the participants are better than before and as compared to non-participants in terms of coping with climatic and economic shocks. For instance, during months of food deficit, loans or savings from VSLAs are used to buy food. Likewise, income from livestock is also invested in VSLAs for security just as money from VSLAs is also invested. Other participants also indicated to use the income from VSLA in farming, such as buying inputs to grow maize. Therefore, participant households are more resilient than before.

6.0 RECOMMENDATIONS

The following are the recommendations for future projects:

1. The project was implemented for only 23 months yet some of the objectives required more time so that adoption is reasonably judge pursuant to diffusion of innovations theory. While it is easier for farmers to adopt relatively familiar initiatives such as it was with VSLAs, it is difficult for majority of farmers to adopt new initiatives such as chick care, Chick care is crucial to fast multiplication of poultry and the low rate of adoption (23.9%) needed to be improved. Likewise, expensive technologies like raised goat khola also require farmers to have ample time so that they make judicious decisions regarding adoption of these. Therefore future project could consider being for three years so that the first year is for the laggards to watch and adopt in the second year.

2. The KII and FGDs revealed that farmers there were livestock supplier challenges which could be attributed to lack of capacity of vendors and sourcing from distant markets. It was learnt in the project that some livestock died due to stress and some unknown causes that even affected other chickens not in the program. It is thus recommended that livestock should source locally near the area it will be distributed. This is to reduce long travel and brining in new infection in an area.

3. In terms of supplementary feeding, the majority (90%) use maize bran. This is an indication that the other feeds may not be easy to find. It is recommended that future project provide more lessons on locally available feeds such as cabbages and other leafy vegetables.

4. The results show a significant percentage of participants who approved to be happy with delivery of services by VA to the VSLAs. This is another area that requires intensification.

5. Future projects should consider conducting training needs assessment on not only farmers but also government structures and other local governing structures for founding sustainability. This recommendation is made based on the interviews with government staff.

6. LLFs provide basic animal husbandry practices but do not go as far as injecting animals. However, reports from government staff (KIIs) indicated that some LLFs still inject animals despite not being allowed to do so as per the archaic Livestock Act. To the contrary, FGDs indicated that farmers could have loved this improved access to services extent to injection services. Perhaps LOL may take this as a point for initiating policy discussions considering that vacancy rates for AVOs is significantly high, at least 40% and that ratio of AVO to farmer is about 1:3500 when the recommended is supposed to be about 1:700.

7. The employment of LLFs and VAs was very instrumental in reaching out to more farmers with farmer to farmer advisory service. It is recommended that these be applied in future projects. What was very innovative in this project was the LLFs paid service. Experiences of lead farmers are that they complain that they are not paid and that they rely on hand-outs-training allowances. However, with this project, the service fees have be inspirational to the LLFs as opposed to majority of lead farmers who are motivated by training allowances. However, the VA was observed to work on voluntary basis yet there is potential for VA to also be paid from the group members. This model was tried by Catholic Relief Services (CRS) under the phased out Wellness and Agriculture and Life Advancement (WALA) project implemented in disaster prone areas. Under this, the VA was dubbed Private Service Provider (PSP). He/she earned monthly income from the VSLAs, ensuring sustainability of project.

ANNEX 1: SUCCESS STORIES

1. Money in a box: "Para-vet model" mitigates widowhood

Losing a husband is one of the nightmares no single woman wishes to dream about. The situation is even worse if the husband is the sole breadwinner of the household. Apart from the emotional stress, the departure of the husbands exposes the household to income and food security vulnerability thereby condemning the household towards "*absolute poor*".

Yes! This is a common trend… But NOT with Nelesi Chimombo! A mother of five daughters, Nelesi lost her husband in 2006 when most of her children were just young and demanding stable source of money for good wellbeing. Despite her hardworking spirit in farming, life was really unbearable as she could not afford to pay for school fees when three of her daughters got to secondary school.

The little money she earned through subsistence farming was just enough for household upkeep and life maintenance and was not enough to pay for the school fees. Definitely this was one of the saddest moments of her life.

"Because I did not have money for school fees, I lost my first three children to early marriages". She narrates as tears lingered in her eyes.

That sad story is history now. Nelesi is now a Para-Vet Agent for Chisomo Chicken Group of Chipuka EPA in Ntchisi district. The Land O'Lakes rewarded her hard work and dedication by giving her this role under the Land O'Lakes Livestock for Resilience Project.

Figure 2: Nelesi with her daughter

Through this role, Nelesi was trained in numerous aspects of animal health so that she should be providing animal health services to her fellow farmers on a fee-per-service arrangement. Additionally, she was linked to private veterinary input and service providers where she gets constant supplies of drugs and other veterinary inputs.

However, Land O'Lakes gave her a start-up "*Vet Box*" that contains basic tools for her job such as hoof clippers, weigh band, overalls, drums, trochar (bloat knife), tag applicator, and an artificial insemination kit just to mention a few.

Nelesi is providing veterinary services to more than 150 livestock farmers despite that her chicken group has 18 members only.

"All this is money!" she says as she smiles. *"In the month of April-2016 alone, I got MK 22,000 (US$35) through vet services. This small box is like my gold mine"*

When asked on how she utilizes this money, Nelesi did not hide her delight to say that she is now paying school fees for her fourth-borne daughter who is now in form three.

"I am able to meet household needs and able to have surplus to pay for school needs of my remaining two children. Never again will I lose my daughters to early marriages" She narrates her story while embracing her vet- box.

However, despite that the Para-Vet Model was based on fee-per-service, Nelesi says her priority is to ensure that animals in her vicinity are in good health rather than just concentrating on money alone.

"For instance, this year I vaccinated more than 500 chickens against Newcastle on a condition that I got paid when farmers have harvested groundnuts. This cannot happen with private veterinarians yet it has helped to save chickens." She finishes her story while smiling.

2. Height magic: raised goat kraal (khola) increases livestock asset base for chimwemwe

The question lingers: how can a kraal increase herd size? This is a very fascinating story of Chimwemwe Mikili, a Livestock Lead Farmer for Sagonja Goat Group in Chipuka EPA-Ntchisi district of central Malawi.

The story started in 2014 when Land O' lakes, through the L4R project identified Chimwemwe to be the Livestock Lead Farmer for a group of fellow goat farmers in her village. The nomination did not just come.

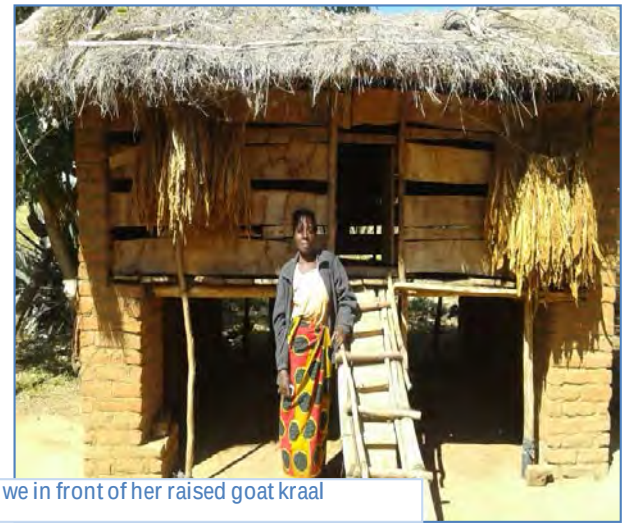

Figure 3: Chimwemwe in front of her raised goat kraal

Chimwemwe performed outstandingly in a series of numerous screening methods that LOL subjected to her. She is just a special breed of women who resist to be pulled back by their gender status.

However, Chimwemwe did not know about opportunities that lie ahead after she successfully became a Livestock Lead Farmer. Neither was she aware that her involvement in the L4R project would be a gateway to finding a solution to the problem of stagnating livestock asset base due perpetual animal mortality of at least 6 goats per year.

Among other numerous project interventions, Chimwemwe was trained in best animal husbandry practices, household economics, animal health, collective marketing, household economics and group dynamics, just to mention but a few.

Nevertheless, among all the trainings Chimwemwe shall always live to cherish construction of raised kraals as a break-through to her goat farming. After being trained on the benefits of a raised kraal, she constructed her own with technical support from LOL project staff.

Then the rain season came when Chimwemwe expects to lose almost half of her herd size making it to stagnate at four goats for the past 5 years. To her surprise, NO goat died in the 2014/15 rain season. That's when she realized it was the design of her previous kraal that predated on her goats.

Due to its design, floor kraals are difficult to clean, are moist and they create a haven for build-up of diseases a situation which is worsened during rainy season. This is never the case with the raised kraals.

During a visit to her house, Chimwemwe was all smiles as she testifies that, *"I never experienced any death of goats in the previous season. This has doubled my livestock asset base. For the first time I have 12 goats in my kraal and I expect the number to increase more"*

3. L4R Transforms Akimu Kawaye's household

Akimu Kawaye has nothing but kind words for L4R project. A 47 year old farmer from Kawaye village, Mwangala Village Development Committee in Bowe Extension Planning Area, he is a member of Chimvano Chicken Producer Club.

He joined the project in 2014 and received five chickens (four hens and one cock) upon satisfying the selection criteria like building a raised kraal. He recalls the time he only had two chickens which could not sustain her livelihoods. Coupled with poor husbandry practices and perpetual occurrence of Newcastle disease, his flock size stagnated below viable size of 5 hens.

"Life was hard during the times of dry spells when we experience little harvest. I had to sell labour and household items to survive." He laments his ordeal as if it is printed in his mind.

But now, Akimu's household is singing a different song; the additional five chickens combined with good husbandry practices that he learnt under L4R have phenomenally multiplied the chicken flock to 15.

"The chickens are now productive unlike in the past because we have learnt a lot about taking good care of chickens. Our chickens are vaccinated every three months while in the past this never happened thus they were wiped out by Newcastle disease." Akimu said while grinning.

Asked if the chickens are just for prestige, Akimu laughed off and then recalled how his household was cushioned from hunger by selling some of the chickens to buy maize for feeding his household earlier this year. His household sold seven chickens at an average price of K1000 [$1.43] during lean period. Not only is the money used for food but also in education. His three children in secondary school also get pocket money from the sale of the chickens.

The increased flock size has also tremendously increased the number of eggs being produced.

Furthermore, he also easily collects manure from raised chicken and goat kraal which he applies in maize field. In this year alone, after applying chicken and goat manure alongside chemical fertiliser in his maize field, he managed to harvest 10 full ox-carts of maize.

"I would like to thank Land O'Lakes for fulfilling their promise of giving us chickens and services because in the past some organizations came and promised us the same but they did not fulfil their promise." He Said.

In addition to chicken production, Akimu said that L4R also taught them about saving money through VSLAs locally dubbed Banki Mkhonde. Despite the he joined VSLA in December 2014, by the end of 2015 he received MK30,000 ($43). This money was partly used to buy fertilizer for his maize field while the other was used to buy food for the household.

Figure 4: Maize produced using manure from chicken and fertiliser from VSLA

Apart from that, his membership to VSLAs has helped him to obtain loan for investing in chicken production. He borrowed MK5, 000 ($7) for buying wire for building his 1m by 1m box for caring for chicks.

This year he has bought about 10 shares equivalent to K5, 000 ($7). He is expecting to get K100, 000 ($143) from the savings by the end of the year.

According to Akimu, though the project had a short duration, it has lifted his household and many others to better deal with climate change enigmas of poor harvests and droughts largely through the increased livestock asset base.

4. Age does not matter: Of proper goat husbandry and VSLAs

It seems it was a matter of choice for L4R project participants to become resilient or not. In the village of Kawaye, Bowe Extension Planning Area, there is a man, 83, by the name of Chakazonda Yafeti who opted for his household to become resilient largely through the VSLA and application of goat manure to his tobacco and maize.

Chakazonda, a member of Takondwera Goat Producer Club, received two goats in July, 2015. Before the project, he only had two goats at his home. Chakazonda proudly said that he now has six goats because the animals he received have now re-produced.

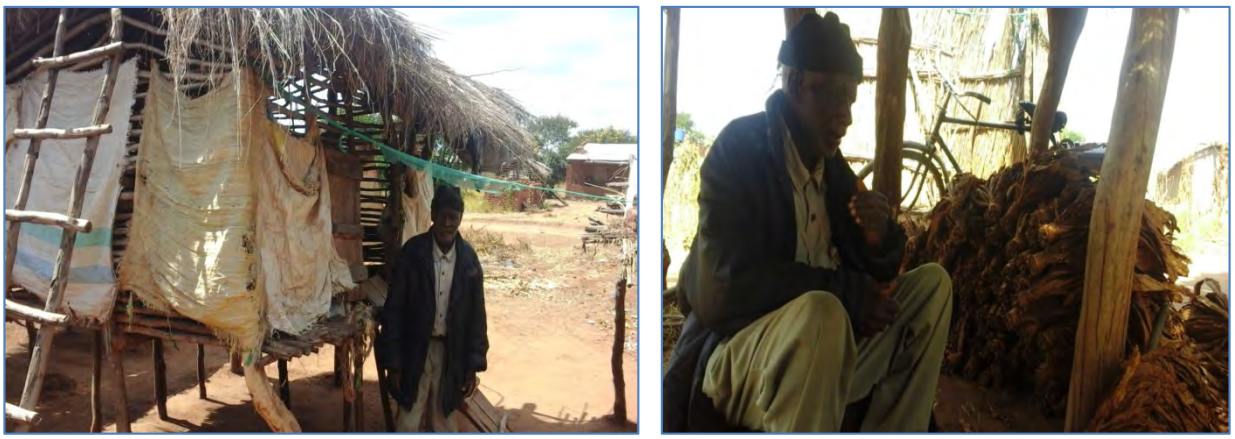

Figure 5: Chakazonda with his raised goat kraal and tobacco harvest

He could not hide his joy but to say it out that the project has helped him a lot on how to take good care of goats, keeping goats in raised kraals to avoid predators like hyenas and also to protect goats from being attacked by worms.

Beside the benefits, Chakazonda said that he is now able to collect a lot of manure from his kraal now as compared with the past. He applies the manure to his farm to raise yields.

For the past year, he did not sell any goat because he is now looking at goat farming as business and that before selling, there is a need for proper planning to maximise profits. Thus, he is planning that when the goats multiply further, his life will never be same again after he starts selling.

"I would like to thank Land O'Lakes for the initiatives which they have brought in our area. We now know how to take good care of goats and report problems when they arise to lead farmers who come and administer drugs". Chakazonda said.

He continued thanking Land O'Lakes for letting them know that goat farming is a business, teaching them how to feed their goats with groundnut haulms, and ultimately keeping goats in raised kraals. Chakazonda can now note the difference in the health of his goats as in the past they used to get ill more often than now. The disease incidences such as diarrhoea and pneumonia have been significantly reduced because they live in clean kraals since urine and droppings fall beneath the rack.

The use of VSLA is also one of the quick returns initiatives which L4R project has brought in his area.

He joined VSLA group in 2014 December and by the end of financial year of its group, he received MWK23, 000 ($33) from his savings. December is usually a month when his food runs out and also when he needs to apply top dressing fertilisers in his maize and tobacco. He bought a bag of fertilizer to apply in his maize and tobacco field and the rest of the money was used to buy food.

Chakazonda has also seen the advantage of VSLAs when it comes to addressing social emergencies. Last year [2015] he borrowed MWK6, 000 ($8.6)) from the group to use it for the funeral of his elder brother and this year (2016) he borrowed MWK2, 000 ($2.9) to take his sick child to the hospital.

Currently, he holds 37 shares in his group which are equivalent to MWK18, 500 ($26.4). At this rate, he is expected to harvest over MK30, 000 ($43) from the VSLAs by the end of the year, a nearly 50% improvement from the previous year.

"I would like to thank Land O Lakes for bringing the idea of VSLAs in our community because this programme helps my family when we need help mos." Confessed Chakazonda.

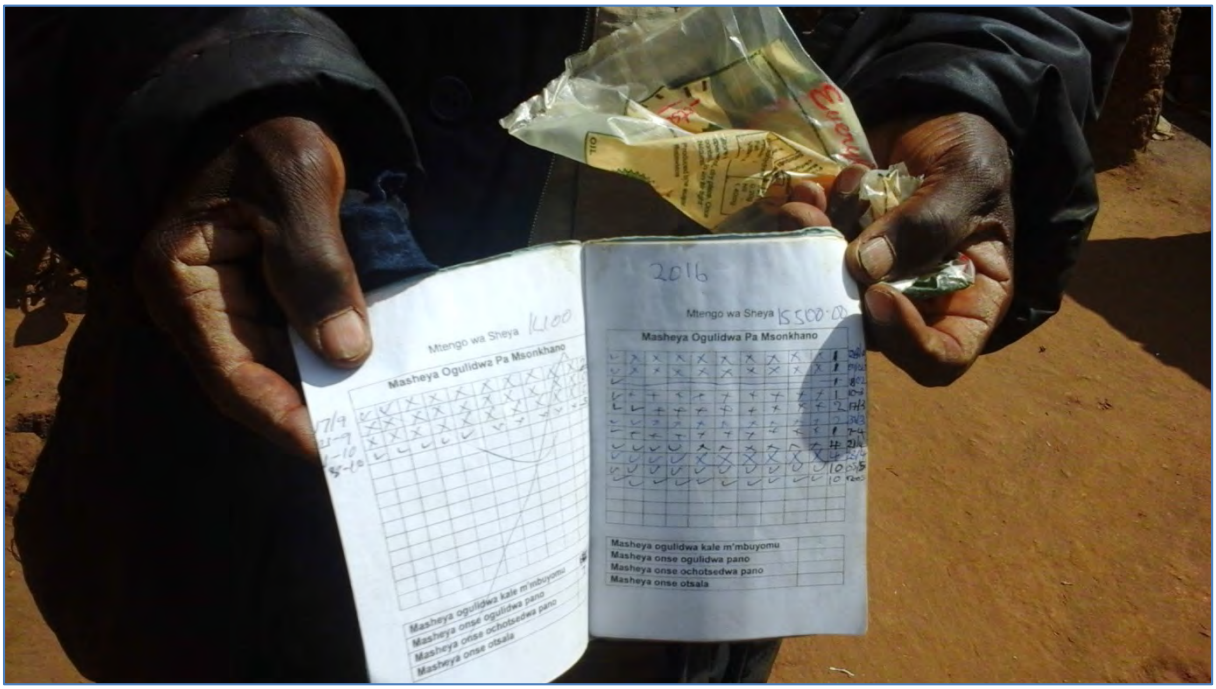

Figure 6: Chakazonda proudly displaying his VSLA shares for 2016

5. Thank you L4R, am better now than before-Says Angelina, a widow

Angelina Kazingani comes from Lichere village in Bowe EPA, Dowa district. She is one of members of Kalangamfiti Goat Producer Group in Lichere Village Development Committee. She has 7 children whose ages range from 9 months to 19 years old. After her husband died, Angelina decided to join the goat producer group with the hope of finding options for taking care of herself and the children.

Kazingani received 2 does from Land O'Lakes in 2015 but now she boats of 5 goats. She attributes the phenomenal multiplication of the goats to good husbandry practices learnt through the L4R project such raised kraal, administering of anti-worm drugs and appropriate feeding practices.

Figure 7: Angelina and her raised kraal for goats

Angelina Kazingani has been participating in VSLA since 2015. Using money borrowed from the VSLA, she became entrepreneurial. She ventured into a business of buying and selling cloth (zitenje) to her local market. Angelina makes enough profit to keep her household going.

"For every bundle of 20 pieces, I make a profit of MK5, 000 [$7] which is quite enough for me to take care of my children." Angelina confessed.

It seems entrepreneurship is in Angelina's blood. During harvest period, she also buys soybeans at about MK250 ($0.36) per kg and sells to National Smallholder Association of Malawi (NASFAM) at MK300 ($0.43) per kg. Again, she started this business using money from VSLA introduced by Land O'Lakes.

Apart from the general upkeep of the household, Angelina has bought a set of chairs and a table from the business. Additionally, she has also bought one goat at MK7, 000 ($10), three bags of fertiliser at MK22, 000 ($31) each, and cupboard at MK20 000 ($29). Angelina Kazingani challenges that she is better off now than before.

"I am strong now because I am able to get things that I did not have before, and I do not see any challenge with the fees for animal health services" Emphasised Angelina.

ANNEX 2: EVALUATION CRITERIA AND QUESTIONS

Evaluation criteria	Evaluation Questions
Relevance / Appropriateness	• To what extent has the program design and implementation met the needs of the participants, and is appropriate for the context of Dowa and Ntchisi districts of Malawi? • How well aligned is the program strategy and activities with the Government of Malawi's agricultural and economic development policies, programs, and priorities? • Are the established targets realistic given the current program context • What improvements could have been made to the design and/or implementation to improve appropriateness?
Effectiveness/ Impact	• How have the intended target participants (*i.e. livestock households, VSLA group members, community livestock workers, etc.*) participated in program activities? • To what extent has the program distributed livestock to targeted beneficiaries? What have been the challenges and successes for both goats and poultry? • What has been more effective at increasing herd size: Livestock transfer of goats or chickens or improved animal health and decreased mortality through improved animal husbandry practices and access to animal health services? • What impact did the program activities have on the specific program participants? To what extent have the animal husbandry and household economics trainings led to application of improved livestock husbandry and business practices • Have households used income from livestock as business activities to develop other business ventures (i.e., do they sell livestock to buy tobacco and sell at the auction, do they use livestock sales to invest in other small businesses such as mandasi selling or running a market stall in the village)? • How effective were the community livestock workers in providing training and animal health services to other participants? • How profitable were the community livestock workers? • How access to animal health has services changed livestock health? • How effective were the village agents in training other participants, and leading the VSLA? • To what extent has increased access to financial services through VSLAs led to changes in savings, spending, and investment in business activity for the participants? • How have participants used their savings from the VSLA? • Are participants using savings from the VSLA to invest in livestock activities? • How has participation in the project (applying improved practices, participating in VSLA, receiving livestock, etc.) led to an increase in livestock asset base and an increased food security (measured through months of food self-sufficiency and dietary diversity, and ability to withstand shocks)? • Are households better prepared to respond to shocks and respond to household needs during the hunger/lean season? • Collect a minimum of five (5) success stories covering the program's main participants, with photos and personal testimony and quantitative data to support the success stories for:

	o CLWs (one female and one male); o VSLA members (1 female); o Successful chicken and goat producers (1 male; 1 female)
Efficiency	• Were the resources and activities provided by the L4R program distributed or carried out in a timely manner? What were some of the challenges and how did Land O'Lakes overcome these issues? What are some examples of program success? • Which components were most critical and/or effective in achieving program objectives and intermediate results? What aspects of the program were particularly ineffective? Why?
Sustainability	• What mechanisms have been put in place to ensure sustainability of program activities and results? • Carefully analyze key project activities, diagnose which ones could be sustainable after funding ends. This will include, but not be limited to: -Are participants likely to continue using improved animal husbandry and business techniques? -Are participants likely to continue to keep livestock as a resilience mechanism? -Are CLWs likely to continue to provide animal health services? -Are CLWs able to access drugs and medications needed to continue providing animal health services? -Are VSLAs likely to continue functioning? • What are the major factors influencing the achievement or non-achievement of the sustainability of the program and/or its activities? • What more could the program have done to ensure sustainability of the project activities and benefits?
Gender Equality and Equity	• How did the project address the constraints faced by women in the livestock value chain? What did the program do well, what could the program have done better? • Did the L4R approach to gender equality and gender equity ensure balanced involvement of women and men in all program activities? • Is there a difference in how male and female headed households handle income from livestock activities (differentiated by goat and chicken activities)? • Have the outcomes of the project differed between men and women? • How or in what manner? If so, what could the project have done differently to ensure that equal benefits accrued to both women and men?

ANNEX 3: LIST OF KEY INFORMANTS INTERVIEWED

Name	Position	Sex	Organisation	District
Prof Timothy Gondwe	PAC member	M	PAC	Lilongwe
Taiwani Chiyombo	L4R Staff-Livestock specialist	M	LOL	Dowa
Maxwell Sulian	L4R Staff-Ass. Business & marketing	M	LOL	Dowa
Inga Mulenga	L4R-Livestock Specialist	M	LOL	Dowa
Francis Mhango	DALHIDO	M	DAO	Ntchisi
Homester Nyirenda	AEDO	F	Nachisaka EPA	Dowa
Lewis Kumwenda	AVO	M	Malomo EPA	Ntchisi
Clifford Chisenga	AEDC	M	Bowe EPA	Dowa
Benjamin Chokolonga	AEDC	M	Malomo EPA	Ntchisi
J.E. Nyirongo	AEDO	M	Malomo EPA	Ntchisi
Braiko Simchimba	AHSA	M	Bowe EPA	Dowa
Happy Kamanga	AVO	M	Nachisaka EPA	Dowa
Harold Kachingwe	AEDC	M	Bowe EPA	Dowa
Beatrice Kalipinde	AEDO	F	Chipuka EPA	Dowa
Grace Makuta	VA	F	Nachisaka EPA	Dowa
Gloria Masaya	VA	F	Nachisaka EPA	Dowa
Edina Kanyoni	VA	F	Nachisaka EPA	Dowa
Francisco Pepuzani	VA	M	Chipuka EPA	Ntchisi
Alice Kamakoka	VA	F	Nachisaka EPA	Dowa
Eladi Kachola	VA	M	Bowe EPA	Dowa
Monalisa Thokozani	VA	F	Nachisaka EPA	Dowa
Thokozani Julius	VA	M	Bowe EPA	Dowa
Peter Gwedemu	VA	M	Malomo EPA	Ntchisi
Alinesi Tchalosi	VA	F	Malomo EPA	Ntchisi
Welokisi Chikuni	VA	M	Bowe EPA	Dowa
Ireen Lemison	LLF	F	Nachisaka EPA	Dowa
Marktonnex Mapondera	LLF	M	Nachisaka EPA	Dowa
Lazaruss Msakambewa	LLF	M	Nachisaka EPA	Dowa
Sainet Tesi	LLF	M	Nachisaka EPA	Dowa
Milton Chikalamo	LLF	M	Bowe EPA	Dowa
Francis Kachingala	LLF	M	Malomo EPA	Ntchisi
Jubele Chimanja	LLF	M	Chipuka EPA	Ntchisi
Sosten Phiri	LLF	M	Bowe EPA	Dowa
Foster Saka	LLF	M	Bowe EPA	Dowa

ANNEX 4: END OF PROJECT PERFORMANCE DATA TABLE (PDT)

	Indicator Name	Unit	Disaggregation		Baseline		Endline	
					Year	Value	Target	Actual
1	Number of animals benefiting from or affected by livestock activities	Number	Total		2014	0	26,000	90,294
			Animal	Goats		0	8,640	12,417
				Chicken		0	16,750	73,766
				Cattle		0	610	445
2	Number of people benefiting from livestock activities	Number	Total		2014	0	30,000	40,250
			Sex	Male		0	14,700	20,125
				Female		0	15,300	20,125
3	Number of veterinary interventions, treatments or vaccinations administered	Number	Total		2014	0	25,000	147,692
			Intervention	Deworming		0	3,900	26,643
				Vaccination		0	19,300	115,392
4	Number of animals treated or vaccinated	Number	Total		2014	0	18,000	72,266
			Animal	Goats		0	3,000	6,979
				Chickens		0	14,400	72,266
				Cattle		0	600	445
5	Number of people newly receiving financial services or continuing to receive financial services due to USAID/OFDA support	Number	Total		2014	0	4000	4,837
			Sex	Male		0	2,000	2,021
				Female		0	2,000	2,816
6	Percentage of financial service groups supported by USAID/OFDA that are functioning properly	Percentage			2014	0%	50%	65%
7	Total USD amount channeled into the program area through sub-sector activities	Dollar ($)	None		2014	0	0	0
8	Percent of households that have an increase in their livestock asset base	Percent	Total		2014	0	75%	77.2%
			Sex	Male-head	2014	0	75%	77%
				Fem – head	2014	0	75%	78%
9	Percent of female headed households that have an increase in their livestock asset base	Percent	None		2014	0	75%	78%
10	Percent of households with viable herd/flock size (participants that receive vouchers and other project activities)	Percent	Both (Sex)	Total	2014	59%	65%	74%
				Goats	2014	15%	40%	37%
				Chickens	2014	69%	90%	75%
			MHH	Total-MHH	2014	62%	65%	57%
				Goats	2014	16%	35%	38%
				Chickens	2014	73%	95%	76%
			FHH	Goats	2014	14%	40%	36%

	Indicator Name	Unit	Disaggregation		Baseline		Endline	
					Year	Value	Target	Actual
				Chickens	2014	61%	90%	74%
11	Percent of female-headed households with viable herd/flock size (participants that receive vouchers and other project activities)	Percent	Total-FHH		2014	54%	65%	55%
			Goats		2014	14%	40%	36%
			Chickens		2014	61%	90%	74%
12	Number of households that utilize their vouchers to purchase animals	Number	Total		2014	0	2000	1,786
			Type	Goats	2014	0	500	675
				Chickens	2014	0	1500	1,111
13	Number of households that receive vouchers to purchase animals through the project	Number	Total		2014	0	2000	1,786
			Type	Goats	2014	0	500	675
				Chickens	2014	0	1500	1,111
14	Percent of households that are applying improved animal husbandry and feed techniques	Percent	Total		2014	0	75%	72%
			Sex	Male-head	2014	0	75%	72
				Fem-head	2014	0	75%	74
15	Number of individuals trained in animal husbandry and management	Number	Total		2014	0	6000	7,277
			Sex	Male	2014	0	3000	3,553
				Female	2014	0	3000	3,724
16	Number of producer groups formed and/or strengthened	Number			2014	0	300	300
17	Percent of female members in assisted producer groups	Percent	None		2014	0	50%	52%
18	Number of Answer Plots established	Number	None		2014	0	8	10
21	Goat and chicken mortality rate amongst target producer groups' households	Percent						
			Animal	Goat	2014	23%	14%	4%%
				Chicken	2014	57%	32%	6%%
22	Net monthly income of Livestock Lead Farmers (para-vets) from providing animal health services	Amount	Total		2014	0	$50	$10.01
			Sex	Male	2014	0	$50	$9.69
				Female	2014	0	$50	$10.89
23	Percentage of households served by Livestock Lead Farmers (para-vets) that give favorable reviews of their experience	Percent	Total		2014	0	75%	87%
			Sex	Male	2014	0	75%	88%
				Female	2014	0	75%	84%
24	Number of households served by the Livestock Lead Farmers (para-vets)	Number			2014	0	4500	11,626
25	Number of trained Livestock Lead Farmers (para-vets) providing animal health services to households	Number	Sex		2014	0	150	150
26	Number of Livestock Lead Farmers (para-vets) equipped and trained in animal health services and animal husbandry and management	Number	Total		2014	0	150	138
			Sex	Male	2014	0	96	72
				Female	2014	0	54	66
27	Amount ($) saved and loaned in the VSLAs	Amount ($)	None		2014	$0	$30,000	$108,178
28	Percentage of households that are applying improved business techniques	Percent	Total		2014	0	75%	27%
			Sex	Male-head	2014	0	75%	26%
				Fem –head	2014	0	75%	27%

	Indicator Name	Unit	Disaggregation		Baseline		Endline	
					Year	Value	Target	Actual
29	Number of individuals trained on savings and loans	Number	Total		2014	0	6000	5,817
			Sex	Male	2014	0	3000	2,640
				Female	2014	0	3000	3,177
30	Number of individuals receiving household enterprise training	Number	Total		2014	0	18000	10,360
			Sex	Male	2014	0	9000	4,817
				Female	2014	0	9000	5,543

ANNEX 5: TOOLS USED

Tool 1: Household questionnaire

MALAWI LIVESTOCK FOR RESILIENCE

FINAL EVALUATION

TOOL 1: INTERVIEW QUESTIONNAIRE WITH HEADS OF HOUSEHOLD OR PARTICIPANT

SECTION 1: IDENTIFICATION			
Respondent	Interviewer No.	Data Entry Clerk	Field Number:
L 4 R	L 4 R	L 4 R	
[Office Use Only]			*[Allocated]*

[Supervisor Use Only]

Name of Supervisor			
Household back-checked?		Questionnaire checked by:	
Yes	1	*[Supervisor signature]*	
No	2		
Interview Results		*Completed*	1
		Partially completed	2
		Other [Specify]:	

MALONJE

Muli bwanji. Dzina langa ndi----------, ndipo ndachokera ku IFESOR. Tikupanga kafukufuku wa anthu omwe akhala akupanga nawo chitukuko cha ulimi waziweto, mmaboma a Ntchisi ndi Dowa. Pakupanga kafukufuku ameneyu tikufuna tidziwe maganizo a anthu omwe akhala akupanga chitukuko chimenechi, maka momwe chayendera. Zimenezi tili ndi chikhulupiriro chakuti ziwathindizira a Land O Lakes pomwe akupitiliza kuthandizira mdera lino.

Kutengapo mbali m'kafukufukuyu n'kosaumiriza, chotero mulindi ufulu onse kusatero. Banja lanu lasankhidwa pakati pamabanja ena omwe ali kuno. Zomwe mundiuze zithandiza kuti tidziwe zamomwe chitukukochi chayendera. China chilichonse chimene mundiuze chidzasungidwa mwachinsinsi zedi. Zomwe munene zithandiza pa kukonza ndi kulemba zotsatira zakafukufukuyu koma sizidzapelekedwa kwa munthu wina aliyense moti palibe uyo akadziwe kuti ndinu amene mudandiuza zimenezi. Panthawi ino kodi muli ndi funso lina lili lonse likhudza kafukufukuyu.

Ndinu okonzeka kuti ndiyambe kucheza nanu?

Interviewer: Proceed with interview only if answer is positive. *Afinsidwe mafunso pokhapokha ngati avomera kutero*	Yes (Eya)	No (Ayi)

Time interview started *[Interviewer: Enter hour and minute, use 24 hr. clock]* *Nthawi yoyambila kucheza.*	Hour	Minute

[Interviewer: Fill in the information below.]		
Village		
Association		
Village Development Committee (VDC)		
Traditional Authority (TA)		
District	Dowa	1
	Ntchisi	2
EPA	Bowe	1
	Nachisaka	2

	Chipuka	3
	Malomo	4

Interviewer Name				
	Day	Month	Year	
Date of interview				

1.	What is your name please *Kodi dzina lanu ndinu ndani?* *[Interviewer: Write name in the space provided]*_____		
Type of Household (Circle One)		1. Participant	2. Comparison
PARTICIPANT ONLY			
Name of Producer Group			
Type of Producer Group (circle one)		1. Goat	2. Chicken
Name of Livestock Lead Farmer			
Did you receive livestock from the project?		1. Yes	2. No
If yes, what type?		1. Goat	2. Chicken
When did you receive?		1. Goat: Month_____ Year_____ 2. Chicken: Month_____ Year_____	
COMPARISON ONLY			
How many goats do you own?	Number:		
How many chickens do you own?	Number:		

[Interviewer: During the interview, if a respondent firmly refuses to answer any question, write "refused" in the answer space and continue to the next question](sonyezani ngati munthu wakana kuyankha funso)

BEGIN INTERVIEW

SECTION 1: Household Demographic Characteristics

2. Sex of respondent: *[Interviewer: Enter the sex of the respondent in the box provided]*	
Female (Mzimayi)	1
Male (Mzibambo)	2

3.	Are you the head of the household? *Kodi inu ndiye mutu wabanja lino?* *[Interviewer: If yes, proceed to Q8. If no, ask Q4-7]*	No	Yes [SKIP to Q8]	Don't know
		0	1	9

[Interviewer: If the answer to Q3 is no, read the following:

Since you are not the head of household I would like to ask you a few questions about the head of household.

Poti mwanena kuti sindinu mutu wa banja lino ndifuna mundiuzeko izi]

4a. What is the sex of the household head? *Kodi amene ali mutu wa banja lino ndi wamuna kapena wakazi?*	
Male *abambo*	1
Female *amayi*	2
Not applicable	99

4b. What is the age of the household head? *Kodi zaka za mutu wakhomo lanu ndi zingati?* *[Interviewer: Record the answer in the space provided. If the respondent does not know his/her age, record 999 in the space, if not applicable, write n/a]*			

5. Is the head of household married? *Nanga iwowo kodi ali pa banja?*	
Married *ali pabanja*	1
Single(never married) *sanakwatilepo/sanakwatiwepo*	2
Single (Divorced) *adasudzulidwa*	3
Single (Widowed) *wamasiye*	4
Single (separated) *sakhalira pa modzi*	5
Not applicable	99

6. What is the highest level of education the head of household completed? *Kodi iwo amene ndi mutu wabanjalino odaphunzira mokwanira motani? [Code from answer. Don't read options]*	
No formal schooling *Siwodapiteko kusukulu*	0
Informal schooling only (including Koranic schooling) *Odaphunzira maphunziro a Tchalitchi/katukumeni, kapena Korani*	1
Some primary schooling. *Odaphunzirako sukulu ya pulayimale koma sodamalize*	2
Primary school completed. *Odamaliza sukulu yaku pulayimale*	3
Some secondary school / high school. *Odapitako ku sekondale koma sodalimalize*	4
Secondary school / high school completed *Odamalize sukulu waku sekondale*	5
Post-secondary qualifications, other than university e.g. a diploma or degree from a technical college. *Odapitako ku univesite, ku kolegi, ndipo ali ndi Dipuloma*	6
Some university. *Odapitako ku univesite*	7
University completed *Odamaliza ku univesiti*	8
Post-graduate. *Maphunziro apamwamba*	9
Don't know . *Sindikudziwa*	99
Not applicable	997

Intentionally Left Blank

7. What is the main occupation of the head of household? *Kodi iwo amene ndi mutu wabanja lino amagwira ntchito yanji? (Ngati anapuma pantchito)* (*If unemployed, retired or disabled]* What was his/her last main occupation?) *Ntchito yomaliza yomwe anagwira, yinali ntchito yanji? [Do not read options. Code from responses.]*	
Never had a job. *Siodagwireko ntchito*	0
Agrarian	
Subsistence farmer (produces only for home consumption) *Omangulima kuti apeze chakudya chapakhomo pawo basi*	1
Peasant Farmer (produces both for own consumption and some surplus produce for sale) *Ndi mlimi wang'ono koma amalima chakudya chapakhomo komanso chogulitsa*	2
Commercial Farmer (produces mainly for sale) *Amalima ndi cholinga chogulitsa*	3
Farm worker. *Amagwira ntchito m'minda ya anthu ena*	4
Worker	
Fisherman. *Msodzi*	5
Trader / Hawker / Vendor. *Ali ndi wokala, kapena ndi venda*	6
Miner. *Amakumba kapena kupwanya miyala*	7
Domestic Worker / Maid / Char / House help. *Amagwira ntchito zanyumba za anthu ena*	8
Armed Services/ Police / Security Personnel *Ndi a polisi, kapena ndi msilikali, kapena ndi komunite polisi*	9
Artisan / skilled manual worker in the formal sector.	10

Amagwira ntchito zomwe adachita kuphunzira, ndiye amagwira kumakampani	
Artisan / skilled manual worker in the informal sector. *Amagwira ntchito zomwe adachita kuphunzira, koma amagwira kumudzi konkuno*	11
Clerical Worker. *Amagwira ntchito ya ukalariki*	12
Unskilled manual worker in the formal sector. *Amagwira ntchito yomwe sadapitire kusukulu koma, amagwira ku kampani*	13
Unskilled manual worker in the informal sector. *Amagwira ntchito yomwe sadapitire kusukulu ndiye amagwira kumudzi konkuno*	14
Professional	
Businessperson (works in company for others). *Amapanga buzinesi, ndiye amapananga pamodzi ndi anzawo*	15
Businessperson (Owns small business of less than 10 employees) *Amapanga buzinesi, komanso adalemba anthu ena osa pitilira 10*	16
Businessperson (Owns large business of 10 or more employees) *Amapanga buzinesi, komanso adalemba anthu ena opitilira 10*	17
Professional Worker (e.g., lawyer, accountant, nurse, engineer, etc.) *Amagwira ntchito yopitira ku Univesite (monga woweruza milandu, wowerengera za ndalama, nesi, ya injiniya)*	18
Supervisor / Foreman. *Ndi a Folomani*	19
Teacher *Aphunzitsi*	20
Government Worker *Amagwira ntchito ku Boma*	21
Retail worker *Amagwira ntchito mu golosale ya anthu ena*	22
Other	
Student *Mwana wa sukulu*	23
Housewife / Works in household *Mzimayi wapakhomo, amene samapita kuntchito kwina kuli konse*	24
Other Zina, tsimikiza*[Specify]*:	
Don't know Sindikudziwa*[DK]*	999
Not applicable	99

NOW LET US TALK ABOUT YOU: PANO NDIKUDZIWENI INUYO

8. How old are you? *Kodi muli ndi dzaka zingati? [Interviewer: Record the answer in the space provided. If the respondent does not know his/her age, record 999 in the space]*			

9. Are you married? *Kodi ndinu wokwatira?*	
Married *Wokwatira*	1
Single(never married) *sadakwatirepo*	2
Single (Divorced) *Adakwatira koma adasiyana ndi amuna kapena akazi*	3
Single (Widowed) *Adakwatira koma amuna kapena akazi adamwalira*	4
Single (Separated) *Adakwatira koma adalekana*	5

10. What is your main occupation? *Kodi mumagwira ntchito yanji*? (*If unemployed, retired or disabled ngatisadagwirepo ntchito, adapuma pantchito kapena adalumala)* What was your last main occupation? *Ntchito yawo yeni yeni, yomaliza yinali yotani*) *[Do not read options. Code from responses.]*	
Never had a job Sadagwirepo ntchito	0
Agrarian	
Subsistence farmer (produces only for home consumption) *Amangolima kuti apeze chakudya chapakhomo pawo basi*	1
Peasant Farmer (produces both for own consumption and some surplus produce for sale)	2
Commercial Farmer (produces mainly for sale) *Ndi mlimi wang'ono koma amalima chakudya chapakhomo komanso chogulitsa*	3

Farm worker. *Amagwira ntchito m'minda ya anthu ena*	4
Worker	
Fisherman. *Msodzi*	5
Trader / Hawker / Vendor. *Ali ndi wokala, kapena ndi venda*	6
Miner. *Amakumba kapena kupwanya miyala*	7
Domestic Worker / Maid / Char / House help. *Amagwira ntchito zanyumba za anthu ena*	8
Armed Services/ Police / Security Personnel. *Ndi a polisi, kapena ndi msilikali, kapena ndi komunite polisi*	9
Artisan / skilled manual worker in the formal sector. *Amagwira ntchito zomwe adachita kuphunzira, ndiye amagwira kumakampani*	10
Artisan / skilled manual worker in the informal sector. *Amagwira ntchito zomwe adachita kuphunzira, koma amagwira kumudzi konkuno*	11
Clerical Worker. *Amagwira ntchito ya ukalariki*	12
Unskilled manual worker in the formal sector. *Amagwira ntchito yomwe sadapitire kusukulu koma, amagwira ku kampani*	13
Unskilled manual worker in the informal sector. *Amagwira ntchito yomwe sadapitire kusukulu ndiye amagwira kumudzi konkuno*	14
Professional	
Businessperson (works in company for others). *Amapanga buzinesi, ndiye amapananga pamodzi ndi anzawo*	15
Businessperson (Owns small business of less than 10 employees). *Amapanga buzinesi, komanso adalemba anthu ena osa pitilira 10*	16
Businessperson (Owns large business of 10 or more employees). *Amapanga buzinesi, komanso adalemba anthu ena opitilira 10*	17
Professional Worker (e.g., lawyer, accountant, nurse, engineer, etc.) *Amagwira ntchito yopitira ku Univesite (monga woweruza milandu, wowerengera za ndalama, nesi, ya injiniya)*	18
Supervisor / Foreman. *Ndi a Folomani*	19
Teacher. *Aphunzitsi*	20
Government Worker. *Amagwira ntchito ku Boma*	21
Retail worker. *Amagwira ntchito mu golosale ya anthu ena*	22
Other	
Student Mwana wa sukulu	23
Housewife / Works in household . Mzimayi wapakhomo, amene samapita kuntchito kwina kuli konse	24
Other Zina, tsimikizani *[Specify]*: _____ POST CODE	
Don't know . Sindikudziwa*[DK]*	999

11. What is the highest level of education you have completed? *[Code from answer. Do not read options]*	
No formal schooling *Sadapiteko kusukulu*	0
Informal schooling only (including Koranic schooling) *Anaphunzira maphunziro a Tchalitchi/katukumeni, kapena Korani*	1
Some primary schooling. *Anaphunzirako sukulu ya pulayimale koma sanamalize*	2
Primary school completed *Anamaliza sukulu yaku pulayimale*	3
Some secondary school / high school. *Anapitako ku sekondale koma sanalimalize*	4
Secondary school / high school completed *Anamalize sukulu waku sekondale*	5
Post-secondary qualifications, other than university e.g. a diploma or degree from a technical college. *Anapitako ku univesite, ku kolegi, ndipo ali ndi Dipuloma*	6
Some university *Anapitako ku univesite*	7
University completed *Anamaliza ku univesiti*	8
Post-graduate *Maphunziro apamwamba*	9
Don't know *Sindikudziwa [Do not read]*	999

12. Are you able to read and write? *Kodi mumatha kuwerenga ndi kulemb?*	
No *Ayi*	0
Yes *Inde*	1

13. I would like you to tell me the names of people living in your household?
Ndimafuna nditadziwa mayina ndi zaka zakubadwa za anthu amene amakhala munyumba yanuyi?
[Exclude respondent]

Name of member *Dzina la munthu*	Age *Zaka zakubadwa*	Sex *Mwamuna/Mkazi*		School attendance *Amapita kusukulu kapena ayi*	
		Female *Mkazi*	Male *Mwamuna*	No *Ayi*	Yes *Inde*
		1	2	0	1
		1	2	0	1
		1	2	0	1
		1	2	0	1
		1	2	0	1
		1	2	0	1
		1	2	0	1
		1	2	0	1
		1	2	0	1
		1	2	0	1
		1	2	0	1
		1	2	0	1

14.	How many household members in total? *Onse alipo angati*? *[Count above and include respondent]*			
15.	How many rooms are in your dwelling house? *Kodi nyumba yanu ili ndi zipinda zingati?* *[Interviewer: this is including the living room]*	Number:_____		
16.	What is the main material of wall in dwelling house? *Kodi nyumba yanu munamangira chani? [Interviewer: Please observe, don't ask]*			
	Burnt brick *Njerwa zowotcha*			1
	Unburnt brick *Zidina/Mdindo*			2
	Cement block *Mabuloko ya simenti*			3
	Mud *Matope ndi mitengo*			4
	Wood *Mitengo*			5
	Straw/bamboo *Msungwi*			6
	Tin *Zitini*			7
	Plastic *Mapulasitiki*			8

	Other *Zina, tsimikizani* (specify)_____	9
17.	What is the main material of roof on main structure? *Kodi nyumba yanu munafolera ndi chani? [Interviewer: Please observe, don't ask]*	
	Tiles *Matayilosi*	1
	Iron sheets *Malata*	2
	Wood *Mitengo*	3
	Plastic *Mapulasitiki*	4
	Grass *Udzu*	5
	Asbestos	6
	Other *Zina tsimikizani* (specify)_____	9
18.	What is the main material of floor on main structure? *Kodi munyumba mwanu pansi pake munayikapo chani? [Interviewer: Please observe, don't ask]*	
	Mud/sand *Dothi/Mchenga*	1
	Cement *Simenti*	2
	Tiles *Matayilosi*	3
	Wood *Mitengo*	4
	Other *Zina, tsimikizani* (specify)_____	9

19.	What type of toilet does your house have? *Kodi muli ndi chimbudzi chamtundu wanji?*	
	None. *Ndilibe chimbudzi*	0
	Flushing toilet. *Chimbudzi chamadzi*	1
	Compost toilet. *Chimbudzi chomwe timakolola manyuwa*	3
	Pit latrine with *slab Chimbudzi chokumba chomwe chili ndi silabu*	4
	Pit latrine without slab *Chimbudzi chokumba chomwe chilibe silabu*	5
	Other, *Zina, tsimikizani*	9

20.	What is your household's main source of water? *Kodi malo amodzi enieni amene anthu amnyumba mwanu muno amakatungako madzi ndi kuti/oti*	
	Piped water *Pa mmipopi ya gulu*	1
	Hand pump/borehole *Pa mpopi wa gulu*	2
	Dug well *Pa chitsime chokumba*	3
	River/pond stream *kumtsnje waukulu kapena waung'ono,padamu*	4
	Other *Kwina, tsimikizani* (specify)_____	9
	Don't Know (sakudziwa)	999

21.	How far is the main source of water from your household? *Kodi nthawi mumatenga nthawi yayitali bwanji kuti mukafike kukatunga madziko ndi kubwerako?*	
	Within premises *Sitichedwa kokhala/pakhomo/papuloti.*	1
	Neighbours premise *Sitichedwa pokhala kwa anzathu anyumba yinayo.*	2
	Less than 2 km away (less than 20 minutes) *Timayenda mtunda wa 2Km, kupita ndi kuchokera*	4
	More than 2 Km away (20 minutes or more) *Timayenda mtunda wapitilira 2Km, kupita ndi kuchokera*	5
	Don't Know *(sakudziwa)*	999

HOUSEHOLD INCOME AND ASSESTS: ZACHUMA NDI KATUNDU WAPANYUMBA PANU

22. What were the sources of income and amounts earned for your household for the past 12 months?
Kodi mu miyezi 12 yapitayi, munagwiritsa ntchito njira zanji zopezera ndalama?
[Interviewer: Circle all that apply and record amount obtained. Indicate Don't Know if the interviewee does not know amount]

Source of income *Njira yopezera ndalama*		Amount of money obtained per annum *Kuchuluka kwa ndalama(MK)*	Source of income *Njira yopezera ndalama*		Amount of money obtained per annum *Kuchuluka kwa ndalama (MK)*
Farming (Crops) *Ulimi wa mbeu*	1		Hawker *Wokala*	8	
Piece work *(Ganyu)*	2		Firewood selling. *Kugulitsa nkhuni*	9	
Formal Employment. *Kuchokera kuntchito yolembedwa*	3		Moulding bricks *Kuumba njerwa*	10	
Land rents. *Kubwereketsa munda*	4		Charcoal selling *kuotcha ndi kugulitsa makala*	11	
Equipment hire. *Kubwereketsa zipango monga pulawo*	5		Livestock rearing. *Kusunga ziweto*	13	
Pension *Penshoni*	6		Fishing *Usodzi*	14	
Remittance. *Kulandira ndalama kuchokera kwa ana kapena abale amene ali kutauni*	7		Other *Zina, tsimikizani* (specify)	15	

23.	What is the total amount of money obtained for the past 12 months? Mu miyezi 12 yapitayi, munapeza ndalama zingati? *[Interviewer, sum up the total on your own!]*	MK_____

Intentionally Left Blank

24.	Does your household own any of the following items? *Kodi panyumba panu pano muli ndi katundu wotani? [Interviewer: Circle all that apply]*		
		YES	NO
	Radio *Wayilesi*	1	0
	Mobile phone *Foni yam'manja*	1	0
	Sofa *Mipando ya Sofa*	1	0
	Bed *Kama(Bedi)*	1	0
	Mattress *Matilesi*	1	0
	Solar panel *Sola Panelo*	1	0
	Plough *Khasu la Ng'ombe (Pulawo)*	1	0
	Bicycle *Njinga yakapalasa*	1	0
	Storage barns for animals *(khola) Khola la ziweto*	1	0
	Storage barns for food or fodder *Nyumba yosungula chakudya cha ziweto*	1	0
	Oxcart *Ngolo*	1	0
	Hoe *Khasu*	1	0
	Treadle pump. *Thiledo Pampu*	1	0

LIVESTOCK ASSET BASE: ZA ZIWETO

Now let us look at livestock assets that you have. *Pano tiyeni tikambirane zokhudza za ziweto zanu.*

25.	A. What type of livestock do you have? *Kodi muli ndi ziweto zanji, panyumba panu pano?*	B. How many of those are local or improved? *Kodi mwaziweto zimenezi ndi zingati zomwe zili zamakolo komanso zachizungu*		C. How did you originally acquire the majority of these? *Kodi ziweto zimene muli nazo munazipeza bwanji?*										
Livestock type Mtundu wa ziweto	*Total Kuchuluka kwake*	*Local Zamakolo*	*Improved Zachizungu*	*Acquisition type[Multiple response] Njira yopezera ziweto*										
ChickensTotals Nkhuku zonse														
Cocks Atambala				1	2	3	4	5	6	7	8	9	10	99
Hens Zathazi				1	2	3	4	5	6	7	8	9	10	99
Chicks Anapiye				1	2	3	4	5	6	7	8	9	10	99

Goats totals Mbuzi zonse														
Adult Bucks Mbuzi zazimuna				1	2	3	4	5	6	7	8	9	10	99
Adult Does Mbuzi zazikazi				1	2	3	4	5	6	7	8	9	10	99
Kid Bucks Ana a mbuzi amuna				1	2	3	4	5	6	7	8	9	10	99
Kid Does Ana a mbuzi akazi				1	2	3	4	5	6	7	8	9	10	99
Other animals														
Pigs Nkhumba				1	2	3	4	5	6	7	8	9	10	99
Cattle Ng'ombe				1	2	3	4	5	6	7	8	9	10	99
Sheep Nkhosa				1	2	3	4	5	6	7	8	9	10	99
Rabbits A Kalulu				1	2	3	4	5	6	7	8	9	10	99
Pigeons Nkhunda				1	2	3	4	5	6	7	8	9	10	99
Other Zina, tsimikizani				1	2	3	4	5	6	7	8	9	10	99

Key:

1	Purchased before joining Land O'Lakes Producer Group. *Ndinagula ndisanalowe mugula la Land O Lakes*.	6	Received as gift. *Ndianalandira ngati mphatso*
2	Purchased after joining Land O'Lakes Producer Group *Ndinagula nditalowe mugula la Land O Lakes.*	7	Inherited. *Ndinapatsidwa kuchokera kumtundu wathu*
3	Received from Land O'Lakes *Ndinalandira kuchokera ku Land O Lakes*	8	Purchased – for comparison group ONLY
4	Government *Kuchokera ku Boma*	9	Other, *Zina tsimikizani* (specify)
5	Received from other NGO. *Ndinalandira kuchokera ku bungwe lina*	10	Born on Farm
		99	Not Applicable

26.	Have you or any member of your household received voucher(s) from the Land O'Lakes project to redeem any livestock? *Kodi m'banja mwanu muno munalandilako voucher ya ziweto kuchokera kwa a land o lake?* *[Only for Participants, NOT Comparison. For Comparison, skip to 32]*

	No *Ayi*	0	[SKIP TO 32]
	Yes *Inde*	1	
	Not Applicable	99	[SKIP TO 32]

27.	Have you or any member of your household redeemed any livestock using the vouchers obtained from the project? *Kodi inuyo kapena wina aliyense amene amakhala m'nyumba mwanu muno adayamba waombola ziweto kudzera m'njira ya Voucher? [Only for participants, for comparison go to 32]*		
	No *Ayi*	0	[SKIP to 32]
	Yes *Inde*	1	
	Not Applicable	99	[SKIP TO 32]

28.	When did you receive the livestock? *Kodi munalandira ziweto zanuzo liti*?	Month *Mwezi*_____Year *Chaka*_____ *Circle if* Not Applicable

29.	How many Livestock did you or any member redeem? *Kodi munaombola ziweto zingati m'njira yakuombola ndi voucher?*			
	Type of livestock Mtundu wa ziweto	*Number of livestock Nambala ya Ziweto*		
		Male *Zazimuna*	Female *Zazikazi*	Total *Zonse Pamodzi*
	Goats *Mbuzi*			
	Chickens *Nkhuku*			
	Not Applicable	99		[SKIP TO 32]

30.	Did your received livestock have any offspring? *Kodi ziweto zomwe manalandirazo zinayamba kuswana?*		
	No *Ayi*	0	[SKIP TO 32]
	Yes *Inde*	1	
	Not Applicable	99	[SKIP TO 32]

31.	How many offsprings did they produce and how many are alive now? *Kodi ndi ana angati omwe adabadwa, nanga ndi angati omwe akanali ndi moyo panopa?*					
	Type of livestock redeemed *Mtundu wa ziweto zomwe munaombola*	Offsprings produced *Ana a ziweto omwe abadwa*		Offsprings alive now *Ana a ziweto omwe akadali ndi moyo*		
		Male Amuna	Femal e Akazi	Male Amuna	Femal e Akazi	No offspring born from this species
	Goats *Mbuzi*					997
	Chickens *Nkhuku*					997
	Not Applicable				99	[SKIP to 32]

32.	Over the past 12months, has your household purchased any goats or chickens? *Mu miyezi 12 yapitayi panyumba panu pano munagula mbuzi komanso nkhuku zingati?* *[If no to all, SKIP TO 35]*			
			No *Ayi*	Yes *Inde*
	Goats(s) *Mbuzi*		0	1
	Chicken(s) *Nkhuku*		0	1

33.	If yes, how many were purchased *Ngati munagula, munagula zingati??*			
		Male *a Tambala*	Female *Zazikazi/Ma thandzi*	Total *Zonse pamodzi*
	Goats Mbuzi			
	Chickens Nkhuku			
	Not applicable	99 [SKIP TO 35]		

34.	What were the sources of income for the purchase? *Kodi ndalama zomwe munagulira ziwetozo munazipeza bwanji? [circle all that apply]*	
	VSLA loans *Banki nkhonde*	1
	Farm crop harvests *Nditagulitsa zokolola*	2
	Sale of other household asset *Nditagulitsa katundu wina wa nyumba*	3
	Household savings *Ndalama zomwe timasunga ngati banja*	4
	Sold other livestock *Ndinagulitsa ziweto zina*	5
	Remittances *Ndinalandira ndalama kuchokera kwa abale akutauni*	6
	Loans from other sources (loan sharks, banks, family, friends etc.) *Ndinatenga ngongole ku banki, kwa abale, anzanga*	7
	Other (specify) *Zina fotokozani*	9
	Not applicable	99

35.	Generally, how have you been utilising the livestock herds that you keep on your farm over the last 12 months? *Kodi ziweto zomwe mwakhala mukusungu pakhomo panu pano, mu miyezi 12 yapitayi mwazigwiritsa ntchito yanji? [Multiple response question but not applicable if having no livestock]*					
	Option	Chickens *Nkhuku*	Goats *Mbuzi*	Cattle *Ng'ombe*	Sheep *Nkhosa*	Pig *Nkhumba*
	Food *Kudya*	1	1	1	1	1
	Sale *Kugulitsa*	2	2	2	2	2
	Funeral *Kupha pa maliro*	3	3	3	3	3
	Church *Ku Tchalitchi*	4	4	4	4	4
	Chieftaincy *Pazaufumu*	5	5	5	5	5
	Prestige *Chonyadira*	6	6	6	6	6
	Security (savings), *Chokonzekera ngozi zakudza mwadzidzi*	7	7	7	7	7
	Manure *Manyuwa*	8	8	8	8	8
	Celebrations *Zisangalaro*	9	9	9	9	9
	Not Applicable/don't own	99	99	99	99	99

36.	Over the past 12 months, did you slaughter goats/chickens for consumption at home? *Kodi miyezi 12 yapitayi, mwaphako chiweto china chilli chonse, kuti mudye pakhomo panu pano?*		
	No *Ayi*	0	*[SKIP TO 39]*
	Yes *Inde*	1	

37.	If yes, how many livestock did you slaughter for home consumption in the past 12 months? *Ngati munapha, munapha ziweto zingati, mu miyezi 12 yapitayi?* *[Interviewer: WRITE the number 0 if they own the animal, but didn't slaughter for home consumption. If animal type not owned, indicate not applicable.]*				
		Male *Zazimuna*	Female *Zazikazi*	Total *zonse pamodzi*	Not applicable
	Goats *Mbuzi*				99
	Chickens *Nkhuku*				99

38.	In what months do you often slaughter the livestock? *Kodi ndi miyezi yiti yapachaka yimene mumakonda kupha ziweto? [Circle all that apply]*				
	January	1		July	7
	February	2		August	8
	March	3		September	9
	April	4		October	10
	May	5		November	11
	June	6		December	12
	No specific month/anytime want to				13
	Not applicable [SKIP TO 39]				99

39.	Over the past 12 months, did you slaughter goats/chickens for some function? *Kodi mu miyezi 12 yapitayi, munaphako mbuzi kapena nkhuku, kukhudzana ndi chikondwerero kapena zochitika zina? [SKIP to 42 if no slaughtering was done, indicate N/A if animal type not owned]*			
		Yes *Inde*	No *Ayi*	Not applicable
	Goats *Mbuzi*	1	0	99
	Chickens *Nkhuku*	1	0	99

40.	Which function(s) did you slaughter the livestock for? *Ndi zochitika zanji zomwe munaphera ziweto?*								
	Funeral *Maliro*	Wedding *Ukwati*	Chieftaincy *Ufumu*	Church *Tchalitchi*	Guest *Alendo*	Firebreak making around graveyard (Dambule) *Kukonza ku manda*	Christmas *Khirisimasi*	Other	NA

Goats *Mbuzi*	1	2	3	4	5	6	7	9	99
Chickens *Nkhuku*	1	2	3	4	5	6	7	9	99

41.	How many were slaughtered for the function? *Kodi munapha ziweto zingati?*				
		Male *Zazimuna*	Female *Zazikazi*	Total *Zonse pamodzi*	NA
	Goats *Mbuzi*				99
	Chickens *Nkhuku*				99

42.	Over the past 12 months, how has egg production increased? *Kodi mu miyezi 12 yapitayi, kayikiridwe kwa mazira ndi nkhuku zanu kwachuluka motani?* *[Only chicken farmers, skip to 43 if don't own chickens]*		
	A lot *Kwambiri*		1
	Little *Pang'ono*		2
	Same *Sikunasinthe*		3
	Decreased *Kwatsika*		4
	Not Applicable (Not chicken farmers)		99
43.	Over the past 12 months, did your household consume eggs? *Kodi mu miyezi 12 yapitayi m'nyumba mwanu mwadyako mazira?*		
	Yes *Inde*	1	
	No *Ayi*	0	[SKIP TO 45]
44.	How often has your household been consuming eggs over the past 12months? *Kodi miyezi 12 yapitayi, mwadya mazira mowirikiza motani?*		
	Never *Sitinadyeko*		1
	1-2 times per year		2
	1-2 times per month		3
	1-2 times per week		4
	3or more times a week		5
	Not applicable		99

45.	What are the problems facing livestock production in the area? *Kodi ndi mavuto anji omwe mukukumana nawo paulimi waziweto mdera lanu lino?*	
	No problem *palibe vuto lina lili lonse*	0
	Death of animals (adults) *Kufa kwa ziweto zazikulu*	1
	Death of animals (offspring) *Kufa kwa ana a ziweto*	3
	Unavailability of vaccines/drugs *Kusapezaka wakatemera waziweto*	2
	Cannot afford cost of vaccines/drugs *Kudula kwa katemera waziweto*	4
	Lack of affordable supplementary feed *Kusowa kwa chakudya chaziweto chowonjezera cha mtengo wabwino*	5
	Low reproduction rates (e.g. animals not producing offspring as frequently as I think they can) *Kasaberekana kwa ziweto monga momwe timafunira*	6
	Disease outbreaks. *Matenda a ziweto*	7
	Thieves *Akuba*	8

	Other (Speficy) _____	99

Now I will ask you about crop harvests and your adaptation to climate change.

46.	This year has been a poor rainy season and the harvest may suffer. What methods do you use to respond to poor harvests? *Kodi mvula yikavuta monga momwe yinavutila chaka chino, mumagwiritsa ntchito njira zanji pofuna kupeza chakudya*? *[Circle all that apply]*	
	Do casual labour *(Ganyu)*	1
	Reduce food portion *Kuchepetsa chakudya chomwe timadya*	2
	Sell livestock assets *Kugulitsa ziweto*	3
	Beg *Kupemphetsa*	4
	Receive remittance *Kulandira kuchokera kwa abale akutauni*	5
	Borrow food from a neighbour	6
	Small scale irrigation	7
	Don't sell/reduce amount sold from harvest	8
	Trading of Crops	9
	Other(specify) *Zina, fotokozani*_____	10

47.	How did you deal with the situation before Land O'Lakes activities? *Kodi ndi njira zanji zomwe mumagwiritsa ntchito kupeza chakudya mvula yikavuta ndikukhala zokokola zochepa, pamene Land O Lakes, yisanabwere kudera kwanu kuno.* *[Only participants, circle all that apply] [If not participant, SKIP to 49]*	
	Do casual labour *(Ganyu)*	1
	Reduce food portion *Kuchepetsa chakudya chomwe timadya*	2
	Sell livestock assets *Kugulitsa ziweto*	3
	Beg *Kupemphetsa*	4
	Receive remittance *Kulandira kuchokera kwa abale akutauni*	5
	Borrow from a neighbour	6
	Small scale irrigation	7
	Don't sell/reduce amount sold from harvest	8
	Trading of Crops	9
	Other (specify) *Zina, fotokozani*_____	10
	Not applicable (not L4R participant) *[SKIP to 49]*	99

48.	Can you say that you are better in adaptation to climate change on your being part of Land O'Lakes beneficiary as compared to before? *Kodi panopa munganene kuti mukutha kuthana ndi mavuto omwe amadza chifukwa chakusintha kwa nyengo chifukwa Land O Lakes?* [*Only participants, circle all that apply]*	
	Yes *Inde*	1
	No *Ayi*	2
	Don't know (not sure) *Sindikudziwa bwino bwino*	3
	Not applicable, (not L4R participant) *Ine sindinali nawo mu pulojeckiti* *[SKIP to 49]*	99

CAPACITY TO MAINTAIN LIVESTOCK ASSET BASE: UPANGIRI WOMWE MWALANDIRA POFUNA KULIMBIKITSA KUKADAULO OSAMALA ZIWETO

49.	Did you receive any livestock management training over the last 12 months? *Kodi munalandira maphunziro ena ali wonse wokhudzana ndi kasamalidwe kaziweto, mu miyezi 12 yapitayi ?*		
	No Ayi	0	*[SKIP to 57]*
	Yes Inde	1	

50.	What type of information did you learn? *Munalandira maphunziro anji [Circle all that apply]*		
	Housing *Za makola abwino aziweto*	1	Not Applicable (99)
	Breeding *Zakuswana kwa ziweto*	2	
	Animal health *Zazaumoyo wa ziweto*	3	
	Feeds and Feeding *Zazakudya ndi kadyetesdwe kaziweto*	4	
	Record Keeping *Kusunga marekodi a ziweto*	5	
	Household enterprise *Njira zina ndi zina zopezera ndalama pakhomo*	6	
	VSLA *Za Banki Nkhonde*	7	
	Other (specify) Zina, fotokozani	*9*	

51.	Who provided the trainings? *Kodi ndi ndani amene ankapangitsa maphunziro amenewa? [Circle all that apply]*		
	Land O Lakes	1	Not Applicable (99)
	Government *Aboma*	2	
	Other NGOs apart from LOL (specify) *Mabungwe ena (fotokozani)*	3	
	Others(Specify) *Ena, fotokozani*	9	
52.	Who in the household attended the training? *Ndi ndani wanyumba mwanumu amene anakaphunzira maphunziro amenewa?*		
	Wife/adult female *Amayi/Akazi awo*	1	Not Applicable (99)
	Husband Amuna awo	2	
	Child *Mwana wanyumbamo*	3	
53.	Which livestock species were covered during the training? *Kodi ndi ziweto zamtundu wanji zomwe aphunzitsi anaphunzitsapo, panthawi yamaphunzirowo? [Circle all that apply]*		
	Chickens *Nkhuku*	1	Not Applicable (99)
	Goats *Mbuzi*	2	
	Cattle *Ng'ombe*	3	
	Sheep *Nkhosa*	4	
	Pig *Nkhumba*	5	
	Others (specify) *Zina, fotokozani*	9	
54.	To what extent have the trainings changed how you manage your livestock? *Kodi maphunziro a ziweto omwe munaphunzirawo, akuthandizani bwanji pamomwe mumasamalira ziweto zanu?*		
	Not at all *Palibe chasintha*	1	Not Applicable (99)
	A little *Kusintha pang'ono*	2	
	A lot *Kusintha kwahitika kwakukulu*	3	
	Don't know *Sindikudziwa*	9	
55.	What was the most important skill you learned as a producer over the last 12 months? *Kodi ndi upangiri wanji waukulu womwe mwaphunzira mu miyezi 12 yapitayi, ndipo mukuupanga, panyumba panu?*		
	Record keeping *Kusungu marekodi*	1	Not Applicable (99)
	Feeding *Kadyetsedwe ka ziweto*	2	
	Animal health *Zaumoyo waziweto*	3	
	Breeding *Zakuswana kwa ziweto*	4	
	Herd/flock management *Kasamalidwe kaziweto*	5	

	Marketing *zamalonda a ziweto*	6	
	Not sure	7	
	Other (specify) *Zina, fotokozani*	9	
56.	What practices learned have you adopted? *Kodi ndi upangiri wanji munaphunzira ndipo mukuupanga, panyumba panu? [Circle all that apply]*		
	Record keeping *Kusungu marekodi*	1	
	Feeding *Kadyetsedwe ka ziweto*	2	
	Animal health *Zaumoyo waziweto*	3	
	Breeding *Zakuswana kwa ziweto*	4	NA (99)
	Herd/flock management *Kasamalidwe kaziweto*	5	
	Marketing *Zamalonda a ziweto*	6	
	Other (specify) *Zina, fotokozani*	9	

NOW I WILL ASK YOU ABOUT ANIMAL HOUSING STRUCTURES: *ZAMAKOLA A ZIWETO*

57.	Does your household have a raised khola for any of your animals (goats/chickens)*?* *Kodi panyumba panu pano muli ndi khola lam'mwamba la mbuzi kapena nkhuku? [If no to chickens, skip to 62; if no to goats skip to 62. If no to all skip to 63] If Not applicable, skip to 64.*			
		No *Ayi*	Yes *Inde*	Not applicable (If animal species not owned)
	Chickens *Nkhuku*	0 [SKIP TO 62]	1	99
	Goats *Mbuzi*	0 [SKIP TO 63]	1	99

58.	Is the raised khola being used by the animals? *Kodi khola lam'mwambali ziweto zanu zimagonamo panopa?* *Nanga ndi ziweto zanji zomwe zikugona mukhola lamwamba?*			
		No *Ayi*	Yes *Inde*	NA
	Goats *Mbuzi*	0	1	99
	Chicken *Nkhuku*	0	1	99

59.	Did you have and use a raised khola before the project for the following livestock*?* *Kodi a Land O Lakes asanabwere kudera kwanu kuno, munali ndikhola lamwamba?* *Kodi kholalo linali laziweto zanji? [Only for participants]*			
		No *Ayi*	Yes *Inde*	Not applicable
	Goats *Mbuzi*	0	1	99
	Chickens *Nkhuku*	0	1	99
	Other animals *Ziweto zina*	0	1	99
60.	How much money was spent on the construction of the khola? *Kodi munagwiritsa ndalama zochuluka bwanji pomanga khola la mwamba?* *[Write NA in the spaces provided if not applicable]*			
	A. Goats *Mbuzi*	MK_____		
	B. Chicken *Nkhuku*	MK_____		
61.	Where did you get the money for the construction? *Kodi ndalama zomangira khola lamwamba munazipeza bwanji? [Only for participants]*			
	Borrowed from VSL *Ngongole ya banki nkhonde*			1
	Sold livestock *Ndinagulitsa ziweto*			2
	Household savings *Ndalama zomwe timasunga panyumba pano.*			3
	Proceeds from small businesses *Ndalama zochokera kumabizinesi ang'ono ang'ono*			4
	Sold Crops			5

	Casual Labor/Piece Work *Ganyu*	6
	Other (specify) *Zina, fotokozani*	9
	Not applicable	99

62.	Why did you not construct a raised khola for chickens? *Kodi ndi zifukwa zanji zomwe zinakupangitsani kuti musamange khola lamwamba lankhuku? [Only for participants]*	
	Cost too much *Kholali limadula*	1
	Fear of thieves *Kuopa akuba*	2
	Afraid of diseases *Kuopa matenda a ziweto*	3
	Not trained *Sindinaphunzitsidwe*	4
	Material not available *Kkusowa zipangizo*	5
	Others Specify *Zina, Fotokozani*	9
	Not applicable *Plaibepo (Either comparison group, has khola, or don't own chickens)*	99
63.	Why did you not construct a raised khola for goats? *Kodi ndi zifukwa zanji zomwe zinakupangitsani kuti musamange khola lamwamba la mbuzi?* *[Only for participants]*	
	Cost too much *Kholali limadula*	1
	Fear of thieves *Kuopa akuba*	2
	Afraid of diseases *Kuopa matenda a ziweto*	3
	Not trained *Sindinaphunzitsidwe*	4
	Material not available *Kkusowa zipangizo*	5
	Others Specify *Zina, Fotokozani*	9
	Not applicable *Plaibepo (Either comparison group, has khola, or don't own goats)*	99
64.	How do you house your chickens? *Pakuti mwanena kuti simunamange khola lamwamba, nkhuku zanu zimagona kuti?* *[Ask only those that did not build improved khola]*	
	In dwelling *Mnyumba womwe timagonamo*	1
	Deep litter Khola *Khola lapansi*	2
	Unroofed battery cage. *Khola lawaya koma losafolera*	3
	Roofed battery cage *Khola lawaya koma lofolera*	4
	Don't own chickens	5
	Other (Specify) *Zina, Fotokozani*	9
	Not applicable *Palibenso (Has raised khola)*	99
65.	How do you house your goats? *Pakuti mwanena kuti simunamange khola lamwamba, mbuzi zanu zimagona kuti?* *[Ask only those that did not build improved khola]*	
	In dwelling *Mnyumba yomwe timagonamo*	1
	Deep litter *Khola Khola lapansi*	2
	Don't own goats	5
	Other (Specify) *Zina, fotokozani*	9
	Not applicable *Palibenso (Has raised khola)*	99

LIVESTOCK FEEDING SYSTEMS: KADYETSEDWE KAZIWETO

66. 8	What type of livestock feeding system is your household using? *Kodi ziweto zanu mumazidyetsera pogwiritsa ntchito njira zanji? [Circle all that apply]*		
		Goats *Mbuzi*	Chickens *Nkhuku*
	Free range *Kuzitayirira*	1	1
	Tethering Kuzimangirira	2	2
	Herding *Kupita nazo ku ubusa/dambo*	3	3

	Semi-intensive *Kuzidyetsera m'khola komanso kuzitayirira*	4	4
	Other (specify) *Zina fotokozani*	9	9
	Not applicable (if type livestock not owned)	99	99

67. 9	Does your household provide supplementary feed to the following livestock? *Kodi ziweto zanu mumazipatsa chakudya chowonjezera, pamene zabwera kuchokera kubusa?*			
		Goats *Mbuzi*	Chicken *Nkhuku*	
	Yes *Inde*	1	1	
	No *Ayi*	0	0	[SKIP to 69]
	Don't know *Sindikudziwa*	99	99	[SKIP to 69]
68. 0	What type of supplementary feed do you give to your livestock? *Kodi ziweto zanu mumazipatsa zakudya zowonjezera za mtundu wanji?*			
		Goats *Mbuzi*	Chickens *Nkhuku*	
	Maize bran *Madeya/gaga*	1	1	
	Leucaena *Lukina*	2	2	
	Salt *Mchere*	3	3	
	Homemade ration(maize bran + roasted Soya+ Fish meal+salt) *Chakudya chomwe timapanga tokha, posakaniza zakudya izi:* *Madeya + Soya wokazinga+ Ufa wopangidwa kuchokera ku nsomba+ Mchere*	4	4	
	Fish meal only *Ufa wopangidwa kuchokera ku nsomba*	5	5	
	Roasted soya only *Soya wokazinga*	6	6	
	Clean water *Madzi woyera*	7	7	
	Chick growers marsh *Chakudya chogula, chokulitsa anapiye*	8	8	
	Other (specify) *Zina Fotokozani*_____	9	9	
	Not Applicable	99	99	
69. 1	During the last growing season, have you or any member of household grown fodder? *Kodi munyengo ya mvula yapitayi alipo wina aliyense panyumba panu amene anadzala udzu kapena mitengo yimene ziweto zimadya?*			
	Yes *Inde*	1		
	No *Ayi*	0		[SKIP to 71]
	Not Applicable	99		[SKIP to 71]

70. 7	If yes, which crops and on what land? *Kodi ndi udzu wanji, kapena mitengo yanji yomwe munadza ngati chakudya chaziweto, komanso malo ake anali akulu bwanji?*			
	Crops		Land size (acres)	Did you feed your goats with fodder? Yes----------1 No----------0
	Leucaena (No local name) *Lukina*	1		
	Sesbaniasesban	2		
	Silver leaf *(kamamatila wa silver)*	3		
	Green leaf (*Kamamatila wobiliwila)*	4		
	Soya plant *Soya*	5		
	Other (specify)_____*Zina fotokozani*	9		
	Not Applicable	99		

71.	Does your household plan to grow fodder this coming season? *Kodi inuyo kapena wina aliyense panyumba panu pano ali wokonzeka kudzala udzu kapena mitengo yimene ziweto zimadya munyengo ya mvula yomwe yikubwerayi?*

	Yes *Inde*	1	
	No *Ayi*	0	[SKIP TO 73]

72.	If yes, how much land do you plan to allocate to the fodder production next season? *Ndimalo akulu bwanji amene mwakonzeka kudzalapo chakudya cha ziweto*	Acres:___	Not Sure (9)	NA (99)

CHICK CARE: KUSAMALIRA ANAPIYE

73.	Have you or any member of your household practiced chick care in the last 12 months? *Kodi inuyo kapena wina aliyense panyumba panu pano, amene wagwiritsa ntchito njira zanji zosamalira anapiye, mu miyezi 12 yapitayi?*		
	Yes *Inde*	1	
	No *Ayi*	0	*[Skip to 83]*
	Don't know *Sindikudziwa*	99	*[Probe more. If doesn't know Skip to 83]*

74.	What type of chick care does your household provide? *Kodi ndi njira zotani zomwe mumagwiritsa ntchito posamalira anapiye?*	
	Deep litter *Njira yakhola lapansi koma loyikamo utuchi kapena zinthu zina*	1
	Basket *Kugwiritsa ntchito mitanga/madengu/zitete*	2
	Other (Specify) *Zina fotokozani*	9
	Not Applicable	99

75.	How many chicks were raised through chick care in the last 12 months? *Kodi ndi anapiye ochuluka bwanji amene mwasamalira pogwiritsa njira zaukadaulo mumiyezi 12 yapitayi?*	Number: _____	Not sure (9)	Not Applicable (99)
76.	On average, after how many days after birth, do you put your chicks in a chick care? *Kodi pongoyerekeza, pamapita masiku angati, pamene anapiye abadwa, musanawapatse chisamaliro choyenera, chaukadaulo?*	Days: _____	Not sure (9)	Not Applicable (99)
77.	For how many weeks do your chicks stay in a chick Care? *Kodi anapiye amakhala masabata angati muchisamaliro chaukadaulo?*	Weeks: ____	Not sure (9)	Not Applicable (99)
78.	How many weeks does it take for the hen whose chicks are put in a chick care to start laying eggs again? *Kodi nkhuku wayikazi/thadzi yomwe anapiye ake ayikidwa pachisamaliro chaukadaulo, yimatenga masabata angati yisanayambe kuyikiranso mazira?*	Weeks: ____	Not sure (9)	Not Applicable (99)

79.	What type of feed do you give your chicks while in care? Kodi anapiye womwe ali pachisamliro, mumawapatsa zakudya zanji?	
	Home-made chicken Chakudya cha anapiye chopangidwa pakhomo	1
	Chick marsh Chakudya cha anapiye chogula	2
	Growers march Chakudya cha nkhuku zomwe zikukula, koma chogula	3
	Roasted marsh Chakudya chankhuku chochita kukazinga	4
	Maize bran Madeya	5
	Fish meal Ufa wopangidwa kuchoka ku nsomba	6

	Water Madzi	7
	Other (specify)	8
	Don't Know	9
	Not Applicable	99

80.	How many chicks died while in chick care, in the last 12 months? *Kodi ndi anapiye angati omwe anafa ali muchisamaliro, mu iyezi 12 yapitayi?*	Number: ___	Not sure (9)	NA (99)
81.	How many chicks died after you removed them from chick care in the last 12 months? *Kodi ndi anapiye angati omwe anafa atachotsedwa muchisamaliro, mu miyezi 12 yapitayi?*	Number: ___	Not sure (9)	NA (99)
82.	Before you started practicing chick care, for every 10 chicks that were born, how many could die before reaching the age of 8 weeks? *Musanayambe kutsatira njira yachisamaliro cha anapiye, pa anapiye 10 ali wonse, ndi angati amene ankatha kufa pasanafike masabata 8?*	Number: ___	Not sure (9)	NA (99)

83.	Why are you not practicing chick care ? *Ngati inuyo simukutsatira njira yachisamaliro cha anapiye, ndizifukwa zanji zomwe zikukupangitsani zomenezi?*	
	Expensive *Ndi njira yodula*	1
	Not trained *Sindinaphunzitsidwepo*	2
	Not interested *Ndilibe nazo chidwi*	3
	Require a mentor *Zimafunika munthu wakuti akuphunzitse, komanso azikutsatira*	4
	Do not trust chicken care *Sindimazikhulupirira za njira yimeneyi*	5
	Too lazy to practice. *Ndimagwa nazo ulesi*	6
	Don't know chick care	7
	Other (specify) *Zina, fotokozani*	9
	Is Practicing Chick care / Not applicable	99

MARKETING: ZAMISIKA YA ZIWETO

84.	What would be an ideal number of adult chickens and goats for you to start selling regularly and not when you have an immediate or urgent need for cash? *Kuti mudzitha kugulitsa nkhuku kapena mbuzi pafupipafupi, mukuganiza kuti pafunika mutakhala ndi nkhuku kapena mbuzi zikuluzikulu zingati?*	Number of adult chickens *Nambala ya nkhuku zikuluzikulu*_____ Number of adult goats *Nambala ya mbuzi zikuluzikulu* _____

85.	Did you sell any of the following over the last 12 months? *Kodi mu miyezi 12 yapita, mwagulitsako mbuzi kapena nkhuku kapena mazira? Ndiziweto ziti zomwe mwagulitsako? [Skip to 94 if no sale at all]*			
		Yes	No	
	Goats *Mbuzi*	1	0	

	Chickens *Nkhuku*	1	0	*[If no to all 3, SKIP to 94]*
	Eggs *Mazira*	1	0	

86.	Who mainly decides on selling any of the livestock? *Kodi ndi ndani amene amapanga chiganizo chogulitsa ziweto panyumba panu pano?*				
		Goat *Mbuzi*	Chicken *Nkhuku*	Eggs *Mazira*	Not Applicable if nothing was sold (99)
	Male *Abambo*	1	2	3	
	Female *Amayi*	1	2	3	
	Joint *Tonse pamodzi*	1	2	3	
	Not owned	9	9	9	

87.	Who mainly decided how to utilise the proceedings from the sales? *Mutagulitsa mbuzi, nkhuku kapena mazira, ndi ndani amene amatsogolera kupanga chiganizo cha momwe ndalama zopezeka zitagwirire ntchito pakhomo lanu?*				
		Goat *Mbuzi*	Chicken *Nkhuku*	Eggs *Mazira*	Not Applicable if nothing was sold (99)
	Male *Abambo*	1	2	3	
	Female *Amayi*	1	2	3	
	Joint *Tonse pamodzi*	1	2	3	
	Not owned	9	9	9	

88.	What is the main approach of sell? *Kodi magulitsidwe anu amakhala otani?*		
	One at a time *Yimodzi yimodzi*	1	Not Applicable if nothing was sold (99)
	Sell many at one time *Kugulitsa zingapo nthawi yimodzi*	2	

89.	Who do you prefer to sell livestock to? *Kodi mumakonda kugulitsa ziweto zanu kwandani?*		
	Itinerant traders *Kwa anthu akupha kumsika/a butchala*	1	Not Applicable if nothing was sold (99)
	Fellow community members *Kwa anthu a mmudzi momuno*	2	
	Structured markets *Kumsika wokhazikika wa boma*	3	
	Other (specify) *Zina, fotokozani*	9	

90.	Generally, when do you think is the best time to sell livestock? *Kodi mukuona kwanu, nthawi yabwino yogulitsira nkhuku kapena mbuzi pachaka, ndi yitiyo?*			
		Goats	Chickens	
	During hunger period or when food runs out. *Nthawi yanjala kapena pamene chakudya chatha pakhomo*	1	1	Not Applicable if nothing was sold (99)
	When there is a need for school fees. *Pamene pali kufunika sukulu fizi*	2	2	
	When emergencies occur. *Pamene mavuto adzidzi agwa*	3	3	
	When prices are high. *Pamene mitengo yakwera*	4	4	
	Anytime of the year. *Nthawi yina yili yonse yapachaka*	5	5	
	Don't own species	6	6	
	Other (specify) *Zina, fotokozani*	9	9	

91.	How often do you wait to sell livestock in bulk? *Kodi zimakutengerani nthawi yayitali bwanji, pachaka, musanagulitse ziweto zambiri nthayi yimodzi?*

	Do not sell in bulk. *Sindimagulitsa ziweto zambiri nthawi yimodzi*	1
	Once/twice a year. *Kamodzi kapena kawiri pachaka*	2
	Several time a year. *Nthawi zambiri mbiri pachaka*	3
	Many times. *Nthawi zambiri*	4
	Not applicable	99

Intentionally Left Blank

92.	For all the livestock that you sold in the last 12 months record the information below *[applies only to those that sold any of the livestock]* *Paziweto zonse zomwe mwagulitsako, ndi mbiri yanji mwakhala mukusunga [Write in N/A in those categories if not sold.]*									
	How many were sold *Ziweto zingati zinagulitsidwa*	How many of these were sold as LIVE or MEAT *Mwazogulitsidwa, ndi zingati zinagulitsidwa munjira izi:*			Main reason for selling* *Chifukwa cheni cheni chogulitsira*	Where did you sell? ** *Munagulitsa kuti*	Average price per animal *Mtengo wa chiweto, pongoyerekeza*	In what months did you sell them*** *Munagulitsa mwezi wanji*	Travel method**** *Munayenda bwanji kupita komwe munagulitsa ziweto zanu*	Travel time to the market (Minutes) *Munatenga nthawi yochuluka bwanji kupita komwe munagulitsa ziweto*
		Live *Zamoyo*	Meat *Zitaphedwa ngati yama*	Total *zonse pamodzi*						
	Chicken total *Nkhuku zonse*									
A	Cocks *Atambala*									
B	Hens *Mathadzi*									
C	Chicks *Anapiye*									
	Goats total *Mbuzi zonse*									
D	Adult bucks *Zazikulu zazimuna*									
E	Adult does *Zazikulu zazikazi*									
F	Kid bucks *Mbuzi zazing'ono zazimuna*									
G	Kid does *Mbuzi zazing'ono zazikazi*									

*To buy food------1; To buy farm inputs-------2;To repay VSLA loan------3; Animal was ill-------4; School fees--------5; Household items other than food---------6
To buy clothes-------7; Sick household member----------8; Other Specify----- 9

**Farm gate; ------1; At local markets------2; Groups/association-------3; NGOs---------4; Other----------9 (specify in cells)

** *Jan 2015----1; Feb 2015---- 2; March 2015----3; April 2015----4; May 2015----5; June 2015----6; July 2015---7; August 2015----8; September 2015-------9; October 2015------10;
November 2015------11; December 2015------12; Jan 2016---13; Feb 2016----14; March 2016----15; April 2016----16; May 2016---17

****walk--------1; vehicle public transport-------2; bicycle-------3; motor cycle-------4; ox-cart----5; didn't travel (sell from home) -----6; other -----9(specify in cell)

93.	Did you sell the livestock mentioned as individual, group or both? *Kodi ziweto zomwe munagulitsazo, munagulitsa panokha, kapena pakugulu, kapena zonse ziwiri?*							
		Chickens *Nkhuku*	Chicks *Anapiye*	Adult goats *Mbuzi zazikulu*	Kid goats *Mbuzi zazing'ono*	Pigs *Nkhumba*	Sheep *Nkhosa*	Cattle *Ng'ombe*
	Individual *Pandekha*	1	1	1	1	1	1	1
	Group *Pagulu*	2	2	2	2	2	2	2
	Both *Zonse ziwiri*	3	3	3	3	3	3	3
	Not applicable *Palibepo*	99	99	99	99	99	99	99

94.	For those that sold eggs in the last 12 months, record the information below; *Funso la omwe anagulitsa mazira;* *[applies only to those that sold eggs, otherwise indicate n/a →]*					Not applicable (99)	
How many were sold? *Munagulitsa mazira angati*	Main reason for selling* *Ndichifukwa chani munagulitsa mazira*	Where did you sell?** *Munagulitsa kuti mazirawo*	Average price per egg (MK) *Pongoyerekeza mtengo wake wachikatikati, unali wotani*	In what months did you sell them?*** *Kodi mazira munagulitsa mwezi wanji*	Travel method**** *Munayenda bwanji kupita kumsika kumene munagulitsira mazira*	Travel time to the market (Minutes) *Munatenga ntahwi yotalika bwanji musafike ku msika*	Did you sell as individual, group or both***** *Munagulitsa panokha kapena ngati gulu*

*To buy food------1; To buy farm inputs-------2; To repay VSLA loan------3; Animal was ill-------4; School fees-----5, Household items other than food---------6 To buy clothes-------7; Sick household member----------8; Other Specify 9

**Farm gate; ------1; At local markets------2; Groups/association-------3; NGOs------4; Other---------9 (specify in cells)

** *Jan 2015----1; Feb 2015---- 2; March 2015----3; April 2015----4; May 2015----5; June 2015----6; July 2015---7; August 2015----8; September 2015-------9; October 2015------10; November 2015------11; December 2015------12; Jan 2016---13; Feb 2016----14; March 2016----15; April 2016----16; May 2016---17

****walk--------1; vehicle public transport-------2; bicycle-------3; motor cycle-------4; ox-cart----5; didn't travel/sell from home----6; other----9 (specify in cell)

***** Individual--------1; Group---------2; Both--------3

95.	Do you keep record of your livestock production and sales? *Kodi mumasunga marekodi aziweto zanu*		
	No *Ayi*	0	[SKIP TO 98]
	Yes *Inde*	1	
96.	What type of records do you keep? *Kodi mumasunga marekodi a ziweto zanu otani? [Circle all that apply]*		
	Production *Azakaswedwe kaziweto*		1
	Animal health *Azaumoyo waziweto*		2
	Sales *Zakugulitsa kwa ziweto*		3
	Not applicable		99

97.	Are the Records observed (*Marekodi anaonedwa)*	Yes	No	N/A
	Production *Azakaswedwe kaziweto*	1	0	99
	Animal health *Azaumoyo waziweto*	1	0	99
	Sales *Zakugulitsa kwa ziweto*	1	0	99

JOB CREATION: KUPEZETSA NDIKULEMBA ANTHU NTCHITO

98.	Since joining L4R [Land O Lakes project], were you or any member of your household hired anyone to work on your livestock business? *Chilowereni muchitukuko chaza ulimi wa ziweto womwe a Land O Lakes akulimbikitsa, inuyo kapena munthu wina aliyense wapa nyumba panu, adalemba munthu wina ntchito kuti athandizire pa buzinezi yanu woweta ziweto?[Participants Only] [Non participant, SKIP to 104]*			
	Yes *Inde*	1		Not applicable (99)
	No *Ayi*	0	*[Skip to 102]*	
99.	How many people did you hire? *Kodi munalembapo anthu angati*	Male Abambo_____ Female Amayi_____		Not Applicable (99)
100.	How many hours did a person work for you in a week? *Kodi anthu amene munawalembawo munthu aliyense amagwira mawola angati pasabata?*	Hours: Mawola_____		Not Applicable (99)
101.	How many months per annum do you hire them? *Kodi yinali miyezi yingati yimene munali ndi anthu antchito, pachaka?*	Months:_____		Not Applicable (99)

ACCESS TO ANIMAL HEALTH SERVICES: KUPEZEKA KWA CHITHANDIZO CHA ULANGIZI/UPANGIRI WA ZIWETO

102.	Name the Land O Lakes Livestock Lead Farmer responsible for providing animal health service trainings in your group?	

	Kodi mlangizi wammudzi wa ziweto, amene amadzakulangizani, ndi ndani? *[Interviewer, this question is strictly for participants, for comparison group, write N/A and SKIP to 104]*	

103.	In the last 12 months has the Lead Farmer provided veterinary services in your community? *Kodi mlangizi ameneyu, mu miyezi 12 yapitayi, anabwera pakhomo panu pano kudzakulangizani zokhudzana kasamalidwe kaziweto?*	
	Yes *Inde*	1
	No *Ayi*	0
	Not applicable *Palibepo*	99

104.	In the last 12 months, have you or any member of your household used animal health services for any of your animals from any animal health provider? *Kodi mumiyezi 12 yapitayi, inuyo kapena wina aliyense wanyumba mwanu, walandirapo chithandizo chokhudzana ndikasamalidwe kaziweto?*		
	Yes *Inde*	1	*[SKIP to 106]*
	No *Ayi*	0	

105.	Why did any of your livestock not receive any animal health care service? *Kodi ziweto zanu zitadwala simunalandire chithandizo chifukwa chani? [Circle all that apply]*	
	Cost *Kudula kwa chithandizo*	1
	Distance *Kutalikira kwa malo kumene chithandizo chimapezeka*	2
	Don't trust LLFs *Sindimakhulupirira a alangizi a mmudzi a ziweto*	3
	Don't believe that drugs work *Sindimakhulupirira kuti mankhwala omwe amaperekedwa*	4
	Services not available *Chithandizocho sichipezeka*	5
	Other (specify) *Zina, fotokoza*	9
	Not applicable (used veterinary/animal health care services)	99

106.	In the last 12 months, how many of your livestock received health care treatment? *Kodi mwaziweto zanu zonse ndizingati zomwe zinalandira chithandizo zitadwala, mumiyezi 12 yapitayi?* [Count each chicken once; *Read out the animal]*		
		Number: Nambala	Not applicable (animal not owned/didn't seek services)
	Chickens *Nkhuku*		99
	Goats *Mbuzi*		99
	Cattle *Ng'ombe*		99
	Sheep *Nkhosa*		99
	Pigs *Nkhumba*		99

107.	What were the sources of money used to pay for animal health services? *Kodi ndalama zolipirira chithandizo cha ziweto zanu, mumazipeza bwanji? [circle all that apply]*	
	VSLA *Banki nkhonde*	1
	Sold livestock *Kugulitsa ziweto*	2
	Household savings *Ndalama zomwe timasunga pakhomo pathu pano*	3
	Proceeds from small business *Ndalama zopezeka kuchokera kumabizinezi ang'ono ang'ono*	4
	Casual Labor *Ganyu*	5
	Selling Crops	6

	Other (specify) *Zina, fotokozani*	9
	Not applicable *Palibepo*	99

108.	How many times were you or any household member visited by the LLF or any animal hearth service provider over the last 12 months? *Kodi mlangizi wa mudzi, waziweto, wakuyenderani kangati mumiyezi 12 yapiatayi?*	No. of times *Kangati:* _____
109.	How do you rate the overall work of the animal health service provider? *Mungandiuze zamagwiridwe a ntchito a mlangizi wa ziweto, wamudzi mwanu muno?*	
	Very poor *Mosalongosoka kwambiri*	1
	Poor *Mosalongosoka*	2
	Average *Mwapakatikati*	3
	Very good *Bwino kwambiri*	4
	Excellent *Moposera muyezo*	5

110.	On a rate of 1 to 10, ten being the highest rate, how can you rate the work of LLFs in terms of prices charged; customer service and frequency of services? *Pa mulingo wapakati 1 ndi 10, kodi mlangizi waziweto yemwe amakuyenderani, mundamupatse mulingo wanji*? *[Participants only]*			
	Price *Mtengo wake*	Rate:	Can't rate (19)	Not applicable if non participants (99)
	Customer Service *Wogula malonda*	Rate:	Can't rate (19)	
	Frequency of services *Kuwirikiza kwakupereka ulangizi waziweto*	Rate:	Can't rate (19)	
	Quality of trainings offered *Mmene amapangitsira maphunziro*	Rate:	Can't rate (19)	

111.	In the last 12 months, have any of your livestock died of any cause, not including slaughter? *Kodi mumiyezi 12 yapitayi, ziweto zanu zafapo, ndizifukwa zina osati kuchita kupha?*		
	Yes *Inde*	1	
	No *Ayi*	0	*[Skip to 114]*

112.	How many livestock died? *Zafa zingati? [Write '0' if that category of animal didn't die but they own]*				
		Male Zazimuna	Female Zazikazi	Total Zonse pamodzi	Not applicable (don't own)
	Chickens total *Nkhuku zonse*				
	Adult Chickens *Nkhuku zikuluzikulu*				997
	Chicks *Anapiye*				997
	Goats total *Mbuzi zonse*				
	Goats *Mbuzi zikuluzikulu*				997
	Kid goats *Mbuzi zazing'ono zing'ono*				997
	Not applicable (NOTHING DIED)	99			
113.	What were the causes of the death? *Kodi ndi zifukwa ziti zomwe ziweto zanu zinafera?*				
		Chicken	# Chickens	Goats Mbuzi	# Goats

		Nkhuku	dead		dead
	Disease and parasite *Matenda ndi tizilombo*	1		1	
	Vehicle *Kugundidwa*	2		2	
	Malnutrition *Kunyentchera*	3		3	
	Theft Akuba	4		4	
	Predation *Afisi kapena zilombo zina zolusa*	5		5	
	Drought *Chilala*	6		6	
	Floods *Madzi wosefukira*	7		7	
	Other (specify) *Zina, fotokozani*	9		9	
	Don't own species	19		19	
	Didn't die (not applicable)	99		99	

VULNERABLE HOUSEHOLDS' CAPACITY TO PLAN, SAVE AND MITIGATE RISK :
KUTHEKERA KWA MABANJA KUTHA KUONA TSOGOLO, KUSUNGA NDALMA NDIKUTHA KUBWERERANSO PAMENE PACHITIKA NGOZI ZADZIDZI

114.	Are you a member of a VSLA group supported by Land O'Lakes? *Kodi inu ndi mmodzi mwa anthu amene ali nayo mmgulu la Banki Nkhonde, yimene a Land O Lakes amathandizira?*		
	Yes *Inde*		1
	No *Ayi*		0
115.	Do you belong to any other VSLA groups in the community? *Kodi inuyo ndi membala wa Banki Nkhonde, kapena bungwe lina lili lonse?*		
	Yes *Inde*	1	
	No *Ayi*	0	[SKIP to 133]
	Not applicable	99	
116.	What is the name of your VSLA group? *Dzina lagulu la banki nkhondelo, ndi chani?* [Write N/A if non applicable]	Name:_____	

117.	What position do you/household member hold in this VSLA group? *Inuyo kapena munthu wina aliyense munyumba mwanu, ali ndi udindo wanji, mugulu la banki nkhonde?*	
	Ordinary member *Membala*	1
	Treasure Msungi chuma	2
	Chairperson *Mkhala pampando*	3
	Secretary *Mlembi*	4
	Money counter *Wowerengera ndalama*	5
	Other (specify) *Zina, fotokozani*	9
	Not applicable *Palibepo*	99

118.	How much savings do you have at your VSLA group? *Muli ndi masheya angati ku banki nkhonde?* [Write N/A if non applicable]	MWK:_____

119.	Have you ever accessed a loan from the VSLA over the past 12 months? *Kodi mwatengako ngongole ku banki nkhonde, mumiyezi 12 yapitayi?*

	Yes *Inde*	1	[SKIP to 121]
	No *Ayi*	0	
	Not applicable *Palibepo*	99	

120.	If not, why? *Ngati, simunatengeko ngongole kubanki nkhonde, ndi chifukwa chani?*	
	High interest rate *Kukula kwa chingola dzanja*	1
	Short repayment period *Nthawi yobwezera ngongole ndiyayifupi*	2
	Inadequate funds *Ndalama ndizosakwanira ku Bankiko*	3
	Was denied for petty reason *Anandikaniza popanda zifukwa zokwanira*	4
	Other (specify) *Zina, fotokozani*	9
	Not applicable	99

121.	How many times have you taken loan from the VSLA in the last 12 months? *Mwatengapo ngongole ku banki nkhonde, kangati mu iyezi 12 yapitayi?* [Write N/A if non applicable]	No. of times: _____
122.	How much money did you borrow from the VSLA? *Mwatengapo ngongole ku banki nkhonde, wochuluka bwanji?* [Write N/A if non applicable]	MWK:_____
123.	How much interest is paid on the principal? *Chiwongola dzanja chinali chochuluka bwanji?* [Write N/A if non applicable]	Interest (%) _____
124.	Have you finished repaying the loan? *Kodi munamaliza kubweza ngongoleyo?*	
	Yes *Inde*	1
	No *Ayi*	0
	Not applicable *Palibepo*	99

125.	What do you use the savings from VSLA for? *Kodi ndalama zomwe mumalandira kuchokera ku banki nkhonde, mumazigwiritsa ntchito yanji?* *[Circle all that apply]*	
	Goat Purchases *Kugula mbuzi*	1
	Chicken purchases *Kugula nkhuku*	2
	Livestock health *Kupezera chithandizo chachisamaliro cha ziweto*	3
	Purchase of other livestock (apart from goats & chicken) *Kugula ziweto zina kupatula mbuzi ndi nkhuku*	4
	Household consumers (i.e. food purchase) *Kugulira zinthu zapakhomo monga zakudya*	5
	Business start-up Kuyambira buzinezi	6
	Use it on social events (e.g funeral) *Kugwiritsa ntchito zamudzi monga maliro*	7
	Agricultural equipment *Kugulira zipangizo za ulimi*	8
	House construction or repair *Kumangira kapena kukonzera nyumba*	9
	School fees *Kulipira sukulu fizi*	10
	Seeds *Kugula mbeu*	11
	Fertiliser *Kugula feteleza*	12
	Other (specify)___*Zina, Fotokozani*_____	99
	Not applicable P*alibepo*	997

126.	What do you use the loans from VSLA for? *Kodi ngongoleyo munatenga kuti mupangire chani? [Circle all that apply]*	
	Invest in crop farming inputs *Kugula zipangizo za ulimi*	1
	Goat Purchases *Kugula Mbuzi*	2
	Chicken purchases Kugula Nkhuku	3
	Livestock health *Kupezera chithandizo chachisamaliro cha ziweto*	4
	Purchase of other livestock (apart from goats & chicken) *Kugula ziweto zina kupatula mbuzi ndi nkhuku*	5
	Household consumers (i.e. food purchase) *Kugulira zinthu zapakhomo monga zakudya*	6
	Business start-up *Kuyambira bizinezi*	8
	Use it on social events (g.g funeral) *Kugwiritsa ntchito zamudzi monga maliro*	9
	Agricultural equipment *Kugulira zipangizo za ulimi*	10
	House construction or repair *Kumangira kapena kukonzera nyumba*	11
	Other (specify)__*Zina fotokozani*_____	99
	Not applicable *Palibepo*	997
127.	If money used on food, what kind of food? *Ngati ndalamayo mumagwiritsa ntchito kugula chakudya, ndi chakudya chanji? [Circle all that apply]*	
	Maize *Chimanga*	1
	Other cereals *Mbeu zina zamugula la chimanga*	2
	Legumes *Mbeu zamugulu la nyemba*	3
	Meat Nyama	4
	Eggs *Mazira*	5
	Fish *Nsoma*	6
	Vegetables *Masamba*	7
	Other (specify) *zina, fotokoza*_____	9
	Not applicable *Palibepo*	99

128.	If money used on business, to what extent is the business progressing? *Ngati ndalamayo mumagwiritsa ntchito kuyambira mabizinezi, buzinezizo zikuyenda bwanji?*	
	Running very well *Zikuyenda bwino kwambiri*	1
	Running well *Zikuyenda bwino*	2
	Just surviving *Pang'ono pang'ono*	3
	Poorly performing *Zikulowa pansi*	4
	Stuck *zayima*	5
	Not applicable *Palibepo*	99
129.	What are the coping mechanisms when unexpected expenditure occurs? *Kodi mukakhala kuti ndalama zanu zatha mwadzidzi, mumagwiritsa ntchito njira zanji, kuti mukhalenso ndi ndalama?*	
	Use money saved in the VSLA. *Kugwiritsa ntchito ndalama za banki nkhonde*	1
	Obtain loan from VSLA *kutenga ngongole ku banki nkhonde*	2
	Sell goats *Kugulitsa mbuzi*	3
	Sell chickens *Kugulitsa nkhuku*	4
	Sell other livestock assets *Kugulitsa ziweto zamtundu wina*	5
	Beg from kin, friends and well-wishers *Kupempha kuchokera kwa abale, ndi ena akufuna kwabwino*	6
	Casual Labor *Ganyu*	7
	Sell/Trade Crops	8
	Other (specify) *Zina, fotokoza*	9

	Not applicable *Palibepo*	99
130.	How often have you saved earnings from the businesses to VSLA? *Kodi ndi nthawi zochuluka bwanji zomwe mwasunga ndalama zanu zomwe mwapeza kudzera ku bizinezi, ku Banki nkhonde? [Only applies to those who started business]*	
	Never *Sindinasungepo*	1
	Once or twice *Kamodzi kapena kawiri*	2
	Several times *Nthawi zambiri*	3
	Many times *Pafupipafupi*	4
	Not applicable *Palibepo*	99

131.	How often have you saved earnings from the livestock businesses to VSLA? *Kodi mwasungapo ndalama zochuluka bwanji kuchokera kubizinezi ya ziweto ku banki nkhonde?*	
	Never *Sindinasungepo*	1
	Once or twice *Kamodzi kapena kawiri*	2
	Several times *Nthawi zambiri*	3
	Many times *Pafupipafupi*	4
	Not applicable *Palibepo*	99

132.	Who largely decides on the household on how to use dividends or loans from VSLA? *Kodi pakhomo panu pano ndi ndani amene amakhala ndi udindo pandalama zomwe mwapeza kudzera kubizinezi kapena bank nkhonde?*	
	Male *Abambo*	1
	Female *Amayi*	2
	Both *Onse pamodzi*	3
	Joint household decision including children	4

133.	Do you have a bank account? *Kodi munatsegula akaunti ku Banki?*		
	Yes Inde	1	
	No Ayi	0	[SKIP to 143]

134.	How much savings do you have with the bank? *Panopa muli ndi ndalama zingati ku Banki*	MK_____	Not Applicable (99)

135.	Have you ever obtained a loan from the bank? *Kodi munayamba mwatengako ngongole ku Banki?*		
	Yes Inde	1	
	No Ayi	2	[SKIP to 140]

136.	Over the past 12 months, how much loan have you accessed from the bank? *Mumiyezi 12 yapitayi mwatengako ngongole ku banki?*	MK_____	Not Applicable (99)

137.	How much interest was charged for your last loan access from the bank? *Kodi pangongole yomwe munatengako, yinali ndi chiwongola dzanja chokwana bwanji?*	Interest (%)_____	Not Applicable (99)

138.	Did you obtain the loan(s) as a group or individual? *Kodi ngongole yimene munatengayo, yinali yagulu kapena ya inu nokha?*	Not Applicable (99)	
	Individual *Pandekha*		1
	Group *Pagulu*		2
	Both *Zonse limodzi*		3

139.	How do you rate the following comparing to now and before L4R VSLA? *Kodi mukuona kuti pali kusintha kotani pa zinthu zotsatirazi mmene mudalowa nowo mu pulojekiti ya Land O'Lakes [for participants only]*							
		Much worse Zoyipiratu	Worse Zoyipa	Same Chim odzi modzi	Better Zasintha	Much Better Zasintha kwambiri	Don't know Sindikudziwa	Not Applicable (non-participants)
	Accessibility to loans *Kapezekedwe kangongole*	1	2	3	4	5	99	999
	Annual income earnings *Kupeza kwa ndalama kwa pachaka*	1	2	3	4	5	99	999
	Dealing with unexpected shocks *Kuthana ndi mavuto akudza madzidzi*	1	2	3	4	5	99	999

140.	Have you ever received training in household enterprise planning and development? *Kodi munalandirako maphunziro a ukadaulo wantchito zotukula khomo lanu?*		
	Yes *Inde*	1	
	No *Ayi*	0	[SKIP to 142]

141.	Which practices have you received training in? *Ndizinthu ziti zomwe munalandirapo maphunziro? [Circle all that apply]*		
	Enterprise selection *Kusnankha zichitika pakhomo*	1	Not Applicable (99)
	Food usage *Kasungidwe kachakudya*	2	
	Business plan development *Mapangidwe a ndondomeko zoyendetsera mabizinezi*	3	
	Other(specify)_____ *Zina, fotokozani*	9	
142.	How do you rate the performance of your VA? *Kodi mlangizi wa zabanki nkhonde mungayike pamulingo wotani, molingani ndi momwe amagwirira ntchito?*		
	Very poor *Sakhonzako*	1	Not Applicable (99)
	Average *Pakatikati*	2	
	Very good *Amagwira bwino*	3	
	Excellent *Amagwira bwino zedi*	4	
	Not applicable *Palibe*	99	

FOOD SECURITY:

143.	Were there any months, in the past 12 months, in which you did not have enough food to meet your family's needs? This includes any kind of food from any source, such as own production, purchase or exchange, food aid, or borrowing. *Kodi yilipo miyezi yina mkati mwachaka yomwe munapezeka kuti mulibe chakudya pakhomo panu pano? Ichitu ndi chakudya chomwe mwalima nokha, kapena mwagula, kapena, munalandira, kapena munabwereka?*				
	Yes Inde			1	
	No Ayi			0	*[SKIP 148]*
144.	How many months do the food stocks take before they run out? *Kodi panatenga miyezi yingati chakudyachi chisanakuthereni?*	|_____| months *Miyezi*			Not Applicable (99)
145.	Which were the months in the past 12 months when you did not have enough food to meet your family's needs? Kodi ndi miyezi yiti yomwe munakhala ndi chakudya chosakwanira pa banja panu? *[Circle all the months the household has no food]*				
	June 2015	1	December 2015	7	Not Applicable (99)
	July 2015	2	January 2016	8	
	August2015	3	February 2016	9	
	September 2015	4	March 2016	10	

	October 2015	5	April 2016	11		
	November	6	May 2016	12		

146.	What was the major reason for having inadequate food? *Kodi kwenikweni ndizifukwa zanji zomwe zinakupangitsani kuti musakhale ndi chakudya chokwanira? [One option only-probe]*		
	Drought *Ng'amba*	1	Not Applicable (99)
	Illness of HH member *Kudwala kwa munthu mmodzi wapabanja lanu*	2	
	Floods *Madzi wosefukira*	3	
	Irregular rains *Kabweredwe kamvula koduladula*	4	
	Crop pest and diseases *Matenda a mbeu ndi tizilombo*	5	
	Criminal acts *Za ambanda*	6	
	Livestock diseases *Matenda a ziweto*	7	
	Erosion *Kukoloka kwa nthaka*	8	
	High food prices *Kukwera kwa mitengo ya zakudya*	9	
	High cost of farm inputs *Kukwera kwa mitengo yazipangizo za ulimi*	10	
	Employment problems *Kusowa kwa ntchito*	11	
	Death *Imfa*	12	
	Theft *Umbava*	13	
	Too many guests who ate all the food	14	
	Other Zina, fotokozani	*99*	

147.	What coping mechanisms did you use to respond to the food shortages? *[circle all that apply]* *Kodi mukakhala kuti chakudya chakutherani, mumagwiritsa ntchito njira zanji kuti mupeze chakudya?*	
	Reduced amount of food eaten at meal times *Banja lanu lidachepetsa kaphikidwe ndi kadyedwe kachakudya ndi cholinga chakuti mukhale ndi chakudya chokwanira*	1
	Reduced the amount of meals eaten per day *Kuchepetsa nambala yanthawi yokudya*	2
	Consumption of wild fruits *Kudya zakutchire monga: zipatso, zikhawo n'cholibga choti mukahle ndi chakudya chokwanira*	3
	Reduced expenditure on non-food purchases *Kuchepetsa kagwiritsidwe kandalama zomwe timagulira katundu amene sakhudzana ndi chakudya*	4
	Sold or traded any household assets to purchase food *Banja lanu lidagulitsa katundu wa mnyumba wina, kuti mupeze ndalama zoti mugulire chakudya chokwanira*	5
	Traded any household assets to get food *Kusinthitsa katundu wina wanyumba ndi chakudya*	6
	Eat nsima from maize cobs *Kudya nsima kuchokera kuchimanga chakuti sichinakhwime*	7
	Piece works *ganyu*	8
	Crop Trading	9
	Other (specify) *Zina, fotokozani*	19
	Don't have food shortages/Not applicable	99
148.	Has the household diet been affected by any changes to production following joining Land O'Lakes's Livestock for Resilience project?	

	Kodi kadyedwe komanso zakudya zanu pakhomo lanu lino kasintha, chifukwa chakuti makololedwe anunso asintha chibwerereni bungwe la Land O Lakes mdera lanu lino? [participants only]	
	No *Ayi*	0
	Yes *Inde*	1
	Not applicable *Palibepo [Non participants]*	99

149.	How has the diet changed? *Madyedwe anu asintha bwanji?*	
	It has Improved *Apita patsogolo*	1
	It has worsened *Abwerera mbuyo*	2
	It has not changed *Sanasinthe*	3
	Not applicable *Palibepo [Non participants]*	99

150.	Looking back over the past 12 months before joining Livestock for Resilience project, how do you rate your ability to do the following now? *Pobwerera mbuyo miyezi 23 yapitayi, musanalowe mu chitukuko cha ziweto chomwe akulimbikitsa a Land O Lakes, kuthekera kwanu kochita zinthu izi kwasintha bwanji? [Only for participants! Read out response options]*							
		Much worse Zoyipiratu	Worse Zoyipa	Same Chimodzi modzi	Better Zasin tha	Much Better Zasinth a kwambi ri	Don't know Sindiku dziwa	
A	Provide enough food for your family? *Chakudya*	1	2	3	4	5	99	NA 99 7
B	Feed the children *Kudyetsa ana*	1	2	3	4	5	99	
C	Feed with balanced diets including (meat, eggs, dairy)? *Kudya zakudya zamagulu* 6	1	2	3	4	5	99	
D	Feed livestock products (meat, eggs, dairy) to the marginalised such Young children, elderly, PLHIV/AIDS?*Kuwapatsa chakudya choyenerera maka zamgulu lanyama anthu wodwala nthawi yayitali komanso ana*	1	2	3	4	5	99	

Intentionally Left Blank

151.	Please describe the foods (meals and snacks) the households ate or drank yesterday during the day and night. Start with the first food or drink of the morning. *Tandifotokozerani zazakudya zomwe zinadyedwa pakhomo panu pano dzulo kuyamba mmawa kufikira madzulo, komanso zakumwa zomwe zinamwedwa.* *[Ask this question to women, Please don't ask men! Therefore, if it's a man write NA in the spaces provided and skip 154]*

Breakfast Kadzutsa	Snack Zongotolatola	Lunch Nkhumaliro	Snack Zongotolatola	Supper Mgonero	Snack Zongot olatola

152.	*[When the respondent has recalled all meals, please fill in the table of food groups below. Mark "1" if any item belonging to the food group appears above. After finishing, probe: for any food groups not mentioned, ask the respondent if any food item from this food group was consumed-Also ask this question women only]* *Pamene woyankha wakumbukira zakudya zomwe zinadyedwa pakhomopo dzulo lake, lembani mu tebulo lili munsili, magulu a zakudya. Ndipo lembani 1, ngati zakudya zomwe zatsulidwa pamwambapo, zikugwa mugulu lina lake mu tebuloli. Mukatha apa, mfunseni amene mukucheza naye, zazakudya zina zamgulu ena , kuti atchule zakudyazo. Funsoli, ayankhe amayi wokha*

Food GroupGulu lazakudya	*Food Item zakudya*	*Response: No-----0 Yes----1*
Grain, roots and tubers	Rice, maize (nsima), sorghum, millet, potatoes, cassava, wheat, Irish potato, bread	
Other fruits & vegetables	Banana, papaya, oranges, pumpkin, squash	

Dairy	Milk (including powdered milk) butter, yoghurt, cheese	
Organ meats	Offals, liver, hearts,	
Eggs	Eggs	
Flesh foods	Goat, beef, lamb, chicken,	
Vitamin A rich green vegetables	Chisoso, mnkhani, luni, bonongwe	
vegetables & fruits	Cabbage, carrots, chilli peppers, mangos, sweet potatoes, tomatoes, watermelon	
Legumes & nuts	Soya beans, beans, pigeon peas (daal) , groundnuts (peanuts), peas, chicken peas, bambara nuts lentils,	
Fats	Margarine, Cooking Oil, Blue Band, Palm oil, fats, or butter added for cooking	
	Not applicable	99

153.	Could you please tell me how many days in the past week your household has eaten the following foods? *Kodi ndi kangati musabata yathayi, pomwe banja lanu linadya zakudya zomwe nditatchulezi?* *[for each food, ask what the primary source of each food item eaten that week was, as well as the second main source of food, if any]*		
Food Item Mtundu wachakudya	Days eaten in the past week (0-7) Nambala ya masiku amene chakudyacho chinadyedwa	Sources Njira yopezera chakudyacho Purchase----------1 Own production----------2 Traded goods/services (barter)----3 Borrowed----------4 Received as a gift----------5 Food aid----------6 Other ----------9 Not Applicable----------99	
		Primary (yeniyeni)	Secondary (yina)
Maize			
Rice			
Bread/wheat			
Cassava /Tubers			
G/nuts, legumes & pulses			
Fish eaten as main food source			
Fish powder (used for flavour only)			
Red meat (sheep/goat/beef)			
White meat Poultry			
Vegetable, oil & fats			
Eggs			
Milk and dairy products (main food)			
Milk in tea in small amounts			
Vegetables (including leaves)			
Fruits			

Sweet, sugar			

HOUSEHOLD DECISION MAKING KUPANGA ZIGANIZO PAKHOMO

154. Generally, who controls the following household resources/services? *Kodi ndi ndani amene amatsogolera popanga ziganizo pazinthunzi izi? [Circle all that apply]*				
Type of resource. *Kochokera ndalama*	Who Controls? *Amazilamula ndi ndani*			
	Men Abambo	Women Amayi	Boys Mnyamata	Girls Mtsikana
Land *Mtunda/Munda*	1	1	1	1
Crop produce *Mbeu*	2	2	2	2
Livestock *Ziweto*	3	3	3	3
Household property *Katundu wa mnyumba*	4	4	4	4
Income *Ndalama zolowa mnyumba*	5	5	5	5
Credit/loan *Ngongole*	6	6	6	6
Information on development *Mauthenga wokhudza nkhani ya chitukuko*	7	7	7	7
Safe motherhood services *Zakulera ndi uchembere wabwino*	8	8	8	8

155.	Who decides how to spend the household income? *Kodi ndi ndani amene amapereka ziganizo pamomwe ndalama zomwe zapezeka mnyumba mwanu, zigwiritsidwire ntchito?*	
	Husband *Abambo*	1
	Wife *Amayi*	2
	Children *Ana*	3
	Both husband and wife *Onse pamodzi, amayi ndi abambo*	4

156.	Before Land O'Lakes' activities, who used to make decisions on what type of animal to purchase *Bungwe la Land O Lakes lisanabwere kudera kwanu kuno, m'banja lanu ndi ndani amene amapereka ziganizo zofuna kugula ziweto? [For participants only]* [*circle one only]*			
		Chicken Nkhuku	Goats Mbuzi	Not applicable
	Male Abambo	1	2	

	Female Amayi	1	2	
	Joint (Both) Onse pamodzi	1	2	

157. Who now makes decisions on what type of animal to purchase?
Nanga panopa, ndi ndani amene amapanga ziganizo zamtundu waziweto womwe banja lanu likufuna kugula?

	Chicken Nkhuku	Goats Mbuzi	Not applicable (99)
Male Abambo	1	2	
Female Amayi	1	2	
Both (Both) Onse pamodzi	1	2	

158. Who currently decides the slaughtering of the following in the house?
Ndi ndani amene amapanga ziganizo zamtundu waziweto womwe banja lanu likufuna kupha?
[Circle all that apply]

	Male *Abambo*	Female *Amayi*	Child *Mwana*	Dont Know	Didn't slaughter
Goats *Mbuzi*	1	2	3	4	99
Chickens *Nkhuku*	1	2	3	4	99

159. Who currently decides the intra-household allocation when the following livestock are slaughtered for consumption? *Ndi ndani amene amapanga ziganizo zakagawidwe kanyama pamene ziweto zaphedwa pa banja lanu?*

	Male *Abambo*	Female *Amayi*	Child *Mwana*	*Dont Know*
Goats *Mbuzi*	1	2	3	4
Chickens *Nkhuku*	1	2	3	4

160. How has livestock farming impacted on your livelihood since joining the L4R project? Kodi ulimi waziweto wakusinthani bwanji, moyo wanu watsiku ndi tsiku, maka chilowereni mu pulojekiti ya Land O Lakes *[not applicable to non-beneficiaries]*

	Increased income *Zachuma chapakhomo chakwera*	Improved food and nutrition *Chakudya and thanzi zakwera*	Improved soil fertility *Chonde m'nthaka chabwerera*	Don't know *Sindikud ziwa*	Other (specify)
Goats *Mbuzi*	1	2	3	99	
Chicken *Chicken*	1	2	3	99	
Eggs *Mazira*	1	2	3	99	

161. What is the most important livestock species for your household well-being and livelihood?
Kodi ndi ziweto zanji zomwe zili zofunikira pamoyo wanu watsiku ndi tsiku? [CHOOSE ONLY ONE]

Chicken Nkhuku	1
Goat Mbuzi	2
Cattle Ng'ombe	3
Other, Specify _____	9

162. Please provide number of livestock that were born over the last 12 months. *Tandiuzani ziweto zimene zidabadwa ndi kufa minyezi 12 yapitayi.*		
Livestock type	No. of ____(Livestock) Births in last 12 months	
	Male	Female
Goats		
Chicken (total number)		
Cattle		
Pig		
Rabbit		
Other(specify)		

3. If there were births in the last 12 months, please provide the manner in which your livestock reproduce. *Ngati panabadwa ana a ziweto, mundiuze njira imene adabadwira.*			
	Naturally bred (leave it to nature)	Purposeful breeding (deliberate effort to get livestock bred)	Not applicable (99)
Goats			99
Chicken			99
Cattle			99
Pig			99
Rabbit			99

The end – thank you!!!!! Zikomo Kwambiri

[Recording finishing time]: Hours_____ Min_____

INTERVIEWER: I hereby certify that this interview was conducted in accordance with instructions received during training. All responses recorded here are those of the respondent who was chosen by the appropriate selection method.

INTERVIEWER SIGNATURE:_____

Tool 2: FGDs with Participants

Name:

District Name		*EPA Name*			
VILLAGE		*VDC Name*			
Facilitator		*Note Taker*			
Date		*Time Start*		*Time End*	

Participants Name	Sex	Age	Marital status	Position held in the producer group

Instructions: As participants arrive, thank them for coming, welcome them, and engage in a friendly conversation. During the discussion, listen carefully to each response, and try to have a "natural" conversation with the group rather than following the guide line by line. Try to ensure that all participants feel comfortable in the group setting, and that everyone is given the chance to speak.

Introduction [When the group is complete]

Introduce yourself and the note-taker

Zizindikiritseni nokha kwa anthu amene abwera kuti mucheze nawo.

Perekani zifukwa zachomwe msonkhanowo watanilitsidwa. Auzeni anthu kuti iwowo ali pazokambiranazo chifukwa ndi amodzi a anthu amene anali nawo mugulu la Pulojekiti ya Land O Lakes. Auzeninso kuti muzokambiranazo mukambirana zamapindu ndi zokhumwidwitsa zomwe iwo anakumana nazo mmene pulojekiti yinali kuyenda.

Zokambirana zanu zisapitilire, ola limodzi

Explain reasons for convening the discussion. "*You are all participating in a project led by Land O'Lakes, called the Malawi Livestock for Resilience Project. We are here to discuss the benefits and challenges of participating in the project, so that Land O'Lakes can improve the project in the future". The discussion should take about 1 hour.*

Ask participants to introduce themselves: Afunseni anthu amene abwera, adzitchule mayina awo

Agree on the norms and confidentiality of the discussion: Gwirizanani zandondomeko yamomwe zokambirana zitayendere. Zololedwa komanso zosaloledwa kuti zichitike pamsonkhanowo

- Session is in the form of a discussion, where everyone shares their own ideas and opinions o One person speaks at a time
- Feel free to speak openly, there are no right or wrong answers
- When responding to questions, leave enough time for other group members to share their thoughts
- All members of the group should treat one another with respect, no matter if you agree with their opinion or not
- All information shared in the discussion is confidential, and no one should share any information they hear today with anyone outside the group.
- Please turn off or silence your cell phones during the discussion
- Affirm (with a show of hands) that all participants are there voluntarily and know that they can withdraw from the group if they want to.
- [IF TAPE RECORDING] Affirm (with show of hands) that participants agree to have the session recorded. Assure participants that the recording, and any notes taken from it will be confidential and only used to verify the notes.

Participation in Producer Groups: Kukhala mmodzi mwa alimi omwe anali mugulu la pulojekiti

1. Why did you decide to join a Goat or Chicken producer groups? Kodi chinakupangitsani ndi chani kuti mukhala mmodzi mwa alimi omwe amaweta mbuzi kapena nkhuku, mupulojekitiyi

*if respondents are mixed, ask them to explain why they picked a goat over chicken group, or vice versa.

2. What reason(s) do you keep Goats or Chickens? Kodi ndi chifukwa chani mumasunga mbuzi kapena nkhuku
3. Are there other producer groups available in your community? Kodi mdera lanu lino mulinso magulu ena amene amasunga mbuzi kapena nkhuku, kupatuka awo amene anayambitsidwa and kukhazikitsidwa ndi a Land O Lakes

Training Za maphunziro

4. What did you learn about improved goat/chicken husbandry from Land O'Lakes or your LLF?Kodi munaphunzira maphunziro anji kuchokera ku Land O Lakes kapena kwa Mlangizi wamudzi wa zaziweto (Lidi Fama)
5. Which topics were most useful to you? Kodi mumaphunziro anu munaphunzira zinthu ziti? Which were most difficult to learn? Pazimene munaphunzirazo, phunziro lobvuta kuphunzira linali lanji? How could Land O'Lakes/Livestock lead farmers improve the way they provide training in the future? Kodi a Land O Lakes kapena a Langizi a zaziweto a kumudzi (Lidi Fama) akuyenera kusintha zinthu ziti mtsogolo muno kuti inu mudzathandizike bwino pa ulimi wanu waziweto

Animal Housing Zamakolo a ziweto

1. Did you construct a raised (improved) animal housing structure for your goats and chickens after joining the project? Kodi munamanga khola lamwamba pamene munakhala mmodzi wa alimi womwe anali mugulu la pulojekiti? Ngati ndi ayi, perekani zifukwa Why or why not?
2. What challenges have you faced in using a raised kraal for your goats or chickens? Kodi mwakumana ndi zovuta zotani pamene munayamba kugwiritsa khola lamwamba
3. What changes have you seen since you started raising your animals in raised Kraals? Kodi mwaona kusintha kotani chiyambireni kugwiritsa ntchito khola lamwamba la ziweto izi
    a. Chickens Nkhuku
    b. Goats Mbuzi

Feeding techniques Kadyetsedwe ka ziweto

1. What type of feeding techniques for Goats and Chickens did you learn during training? Kodi munaphunzirako ndondomeko zotani zakadyetsedwe ka ziweto
2. Before Land O'Lakes, what feeding techniques for goats and chicken were you using? Pulojekiti kapena a Land O Lakes, asanabwere, munkadyetsa bwanji ziweto zanu
3. What feeding techniques for goats and chickens are you currently practicing? Why and why not? Panopa mukudyetsa bwanji ziweto zanu, nanga ndi zifukwa zanji mukutsatila ndondomeko yakadyetsedwe kaziweto kameneko?

Chick Care Kasamalira Anapiye

1. How do you take care of your chicks? Kodi anapiye anu mumawasamalira bwanji? Have you changed this

since joining L4R? Kodi kapena mwasintha masamilidwe a anapiye cholowereni mugulu la anthu a mupulojekiti ya Land O lakes ? Kodi mwasintha chifukwa chani, nanga ngati simunasinthe, ndi chifukwa chani simunasinthe? Why or why did you not change your management of chicks?

2. What changes have you seen in the chicks, if you adopted new techniques? Mwaona kusintha kotani chiyambireni kusamalira anapiye anu munjira zamakono zomwe munaphunzitsidwa
3.

Animal health Za zaumoyo wa ziweto

1. What services are provided by your LLF in your area? Kodi alangizi a ziweto a mudzi mwanu uno (Lidi Fama wa ziweto) amakupatsani upangiri wotani, ndipo pazinthu ziti?
2. Do you utilize animal health services through your LLF? Why or why not? What services do you utilize? Kodi mumagwiritsa ntchito ulangizi kapena upangiri womwe amakupatsani mlangizi waziweto? Ngati simugwiritsa ntchito, ndi chifukwa chani, simutero
3. Have the services been satisfactory from your opinion? Why or why not? Kodi ulangizi ndi upangiri wochokera kwa mlangizi waziweto wamudzi, wakhala wokwanira kapena woperewera, mmene mukuonera inu?
4. What challenges do you face in accessing animal health services from the trained LLF? Kodi mumakumana ndi mavuto otani kuti mupeze upangiri kapena ulangizi kuchokera kwa mlangizi waziweto wamdera lanu?
5. What changes have you seen on your animals since you started treating your animals under the project? Kodi mwaonapo kusintha kotani paulimi wanu waziweto chiyambireni kusamalira ziweto zanu munjira zomwe mumaphunzira kudzera mupulojekiti?
6. Have you been affected by mortality of kids and chicks over the past 12 months? What were the causes of the death? Kodi anapiye anu kapena tiana tambuzi zanu zafako, mu miyezi 12 yapitayi, ngati zafako, zifukwa zake ndi zotani
7. Has increased livestock caring activities changed time spent on doing other tasks such as child care, food preparation and household chores, farming, income generating activities? Kodi kusintha kwanu kwa mmene mumasamalira ziweto, kwapangitsa kuti nthawi yomwe mumakhala nayo pakusamalira ana, kukonza chakudya chanu, ulimi, komanso ntchito zina zokubweretserani ndalama pakhomo?

Record Keeping Masungidwe a Marekodi

1. Do you keep livestock records on: Kodi mumasunga marekodi pa izi:
    a. on animal births and deaths? Why or Why not? Masiku akubadwa, ndi pamene ziweto zafa, ngati simumasunga, ndi chifukwa chani
    b. animal health and sales of livestock? Why or why not? Umoyo waziweto, komanso mmene mwagulitsira ziweto, ngati simumasunga, ndi chifukwa chani
    c. livestock products? Why or why not? Zinthu zina zochokera kuziweto monga mkaka ndi zina, ngati simumasunga, ndi chifukwa chani

Livestock Marketing Zamisika ya ziweto

1. Have you sold any goats or chickens in the past 12 months? Kodi mwagulitsako mbuzi komanso nkhuku mu iyezi 12 yapitayi
2. How have you marketed your Chickens and Goats this year? Kodi munagulitsa ziwetozanuzo munjira yotani?

3. For what reasons did you sell a goat, chicken or eggs? Kodi munagulitsa mbuzi, kapena nkhuku kapena mazira, chifukwa chani?
4. When do you sell your livestock? Munagulitsa ziweto zanu kuti?
5. Who in the household normally makes the decision on when to sell goats or chickens in the house? Has this changed as a result of joining L4R? Kodi ndi ndani amene amatsogola popanga ziganizo zamomwe mugwiritsire ndalama zomwe mwazipeza mutagulitsa, ziweto? Kodi mchititdwe umene wasintha chifukwa chakubwera kwa pulojekiti ya Land O lakes

Financial Services Kupeza upangiri komanso mfundo zokhutsa zazandalama

1. What household enterprise development topics have you been trained on? Kodi ndi zinthu zanji zomwe mwaphunzirapo zokuthandizirani pachitukuko chpakhomo panu?
2. Have you changed any of your financial practices after the training? Which ones? Why or why not? Kodi njira zanu zamomwe mumayendetsera zazachuma zanu kwasintha pamene munapita kumaphunziro azachuma? ngati simunasinthe, ndi chifukwa chani
3. Are you involved in a VSLA in your community? Why or why not? Kodi inu ndi mmodzi mwa iwo amene ali mugulu la Banki Nkhnde/ Ngati ayi, ndi chifukwa chani?
4. What do you use the money saved in the VSLA for? Kodi ndalama zomwe mwasunga kudzera ku Banki Nkhnde mumazigwiritsa ntchito yanji?
5. How does your household decide how to use the money saved in the VSLA? Kodi banja lanu limapanga bwanji ziganizo zamomowe mutagwiritsire ndalama zomwe mwapeza kuchokera ku Banki Nkhonde?
6. What do you use loans from the VLSA for? Mukatenga ngongole ku Banki Nkhonde, ndalamazo, mumagwiritsa ntchito pachani, kapena mumazitanI?
6. Has anyone started a business using funds from the VSLA? What type of business? Why did you select the business you did? How is the business doing? Kodi alipo amene pabanja panu anayamba bizinezi pogwiritsa ntchito ndalama zochokera ku banki nkhonde, bizinezi yanji, nanga anasankhilanji bizinezi yimeneyi, nangano bizineziyo yikuyenda bwanji?
7. How has participation in the VSLA changed your household spending practices? Kodi kukhala mmodzi mwa anthu amene ali mu banki Nkhonde, kwasintha bwanji momwe mumagwiritsira ndalama pakhomo panu

Livestock product consumption: kudya nyama ndizinthu zina zochokera ku ziweto

1. Have you consumed any of your livestock or their products in the last year? If yes, what? When and how often? Kodi mwadyako nyama, kapena zakudya zina zili zonse zochokera kunyama monga mkaka, muchaka chathachi/ Ngati ndi inde, ndi zakudya zanji? Linali liti, komanso mwadya pafupipafupi bwanji?
2. How do you decide when to slaughter livestock for consumption? When do you typically consume your livestock? Kodi mumapnaga bwanji ziganizo zofuna kupha ziweto zanu kutimudye pakhomo lanu? Kodi makamaka mumakonda kupha ziweto zakuti mudye pakhomo panu liti, mchaka?
3. Who decides/decided when to consume your livestock? Kodi ndi ndani amene amapanga chiganizo chakuti uphe ziweto pakhomo panu
4. Since joining L4R, has your chicken egg production increased? Chikhalireni mmodzi mwa alimi apulojekiti, kodi kayikiridwe kamazira kankhuku zanu kakwera?
5. If yes, what do you do with these eggs? Ngati ndi inde, mazira mumapanga nawo chani?

Resilience Kudzipirira kungozi zakudza mwadzidzi

1. This year has been a poor rainy season and the harvest may suffer. What methods do you use to respond to poor harvests? Chaka chimenechi mvula yinali yosadalika (siyinabwere bwino), ndipo zikuonetsa kuti zokolola zikhala zochepa/ Kodi zikachitika chonchi mumagwiritsa ntchito njira zanji kuti mupeze chakudya chapakhomo panu?
2. What does your household do when food is scarce? Pakhomo panu mumatani chakudya chikachepa How has this changed since joining L4R? Kodi zimene zasintha chifukwa chapulojekiti ya Land O Lakes
3. Since joining L4R, do you feel your household is more able to survive during the hunger season? Why? Kodi chikhalireni mmodzi wa alimi a mupulojekiti, mukuona kuti banja lanu likumakhala ndikuthekera kosavuta pofuna kupeza chakudya chapakhomo?
4. How does keeping livestock affect money spent on health care? Kodi kusunga ziweto kumakhudzana bwanji ndi ndalama zomwe mumagwiritsa ntchito pazaumoyo wa anthu apakhomo panu?
5. How has involvement with L4R affected your role in the community? Kodi kukhala mmodzi wa alimi a mupulojekiti, zakhudza bwanji kutengako mbali kwanu pazinthu zochitika mmudzi mwanu?
6. What are the main things that income from livestock activities enabled you to purchase? (Probe any changes in food purchase) – specify type of food Kodi mwagula katundu kapena zinthu zanji, ndi ndalama zomwe mwakhala mukupeza kuchokera kukugulitsa ziweto?
7. How has participating in L4R affected your ability to do the following as compared to before: Kodi kukhala mmodzi wa alimi a mupilojekiti, kwathandizira bwanji pa zinthu izi:
    a. Expand livestock herd? Kuonjezera ziweto zomwe munali nazo
    b. Meet own food needs for staple foods? Kapezedwe kanu ka chakudya chapakhomo panu
8. Are there any long term benefits for joining L4R? What are they? Kodi pali mapindu anji apulojekitiyi omwe ndi akuti adzaoneka mpaka mtsogolo? Mapindu amenewa ndi ati?

Sustainability Kukhalitsa kwa Chitukuko

9. What improved livestock practices will you continue to use after the project? Why? What improved practices will you not continue? Why not? Kodi ndi ukadaulo wanji womwe mwaphunzira ndipo mudzapitiliza kugwiritsa ntchito ngakhale pulojekiti yitatha? Mudzapitiriza chifukwa chani? Nanga ndi ziti zimene simudzapitiriza, nanga ndi chifukwa chani simudzapitiriza?
10. Do you think you will continue to use the services of the Lead Livestock farmer in your area? Kodi mukuona kuti mudzapitilizabe kulandira ndikupeza ulangizi kuchokera kwa alangizi aziweto (Lidi fama) wa mdera lanu?
11. Do you think the VSLAs likely to continue functioning? Why or why not? Kodi mukuona kuti Banki Nkhonde yitha kupitirirabe kugwira ntchito? Ngati singapitirire, ndi chifukwa chanji, singatero?
12. Do you think you will remain a member of your producer group? Why or why not? Kodi inu mudzapitirira kukhalabe membala wa Pulodusa gulupu?
13. What purpose do you see your producer group serving your community? Kodi mukuona kuti Pulodusa gulupu yimathandiza bwanji dera lanu?

Livestock Distributions Kagawidwe ka ziweto

1. What do you think about the system that L4R used to determine which households received livestock? Munganenepo chani zanjira zomwe a Pulojekiti amatsatira pogawa ziweto, maka pakasankhidwe ka iwo amene akuti alandire ziweto?

Remaining questions– only ASK for those that received livestock Mafunso a anthu womwe analandira ziweto

2. What do you think about the voucher system of livestock distribution the project used? Kodi munganenepo chani pa njira ya ma Vocha, yomwe yimagwiritsidwa ntchito pogawa ziweto?
3. How do you plan to use the livestock you received? Kodi ziweto zomwe munalandira muzigwiritsa ntchito yanji?
4. How has receiving livestock changed your household's wellbeing? Kodi kulandira ziweto kwasintha bwanji umoyo wanu watsiku ndi tsiku?

Tool 3: Key Informant Interview: Government Staff

Name:

Position:

1. What has been your role in the implementation of Malawi L4R project?
2. What did you like about L4R activities and approach?
3. What aspects of activities and approach do you think could have been improved?
4. To your knowledge, are there objectives and activities of the project which have been very relevant in meeting participants' needs? If so why?
5. Are there objectives/activities of the project which have been inappropriate in addressing needs? If so why?
6. Were there any challenges faced during your engagement with L4R project staff? How were you able to address these challenges?
7. Please describe any best practices/lessons learned during the implementation of the project?
8. What improvements should be incorporated in future project design to make it more responsive to chicken/goat producers?
9. From your understanding, what impact did the program activities have on the specific program participants?
10. What L4R activities helped households become more resilient to shocks?
11. Were there any expected or unexpected negative consequences or impacts resulting from the program and/or its activities? If yes how were they remedied?
12. If you participated in direct implementation, were resources from the project provided timely?
13. What parts of the project activities or benefits do you expect will be sustained by the beneficiaries after the project? What mechanisms have been put in place to ensure sustainability of program activities and results?
14. What parts of the project activities or benefits do you expect the beneficiaries to struggle to sustain after the project?
15. What more could the program have done to ensure sustainability of the project activities and benefits?
16. Do you have any ideas on how the government can continue some of the activities/benefits after the project duration? What & How?
17. From your experience and as compared to other projects, did the L4R approach to gender equality and gender equity ensure balanced involvement of women and men in all program activities?

Tool 4: for Key Informant Interviews with LLFs

Name:

Position:

District Name		*EPA Name*			
VILLAGE		*VDC Name*			
Facilitator		*Note Taker*			
Date		*Time Start*		*Time End*	

Choice as LLFs

1. Why were you selected to service your community as Livestock Lead Farmer? Kodi inuyo anakusankhani kuti mukhale mlangi waziweto mdera lanu lin, chifukwa chani?
2. How do you feel to be a Livestock Lead Farmer? Kodi mumamva bwanji, pamene inuyo muli mlangizi waziweto wadera lanu?
3. Generally, how has your work impacted you and other farmers in livestock production and marketing since you started this work? What have been positive impacts? What have been negative impacts? Kodi kukhala mlangizi waziweto kwakukhudzani bwani pakhomo panu, komanso kwakhudza bwanji masamalidwe a ziweto mdera lanu komanso magulitsidwe aziweto? Kodi ndizabwino zanji zomwe zachitika, komanso zoyipa zanji?

TrainingsZa maphunziro

4. What did you learn about improved goat/chicken husbandry from Land O'Lakes? Kodi munaphunzirapo zotani zokhudzana ndi kasamalidwe kabwino ka mbuzi komanso nkhuku kuchokera kwa a Land O Lakes
5. Which topics were most useful to you? Which topics were more difficult to you? Kodi ndi mfundo ziti mumaphunziro amene a Land O Lakes anapangitsa, zomwe zinali zofunikira, nanga ndi ziti zomwe zinali zovuta kuzimva?
6. How can you describe the quality of these training from Land O Lakes Trainers? Kodi munganenepo chani zamaphunziro womwe a Land O Lakes akhala akupangitsa
    a. Content Tsatanetsatane wake
    b. Presentations Maphunzitsidwe ake
    c. Materials Ziphunzitsidwazo mamvekedwe ake
7. Are there any topics you would have liked to receive more information or that should have been included in your training? Kodi pali zina zamfundo zomwe munaphunzira zomwe mungafune mutapatsidwa zina zosamitsa

mfundo zimene, kapena ndi mfundo zina ziti zomwe mukanakonda mutaphunzitsidwa?

8. How could Land O'Lakes improve the way they provide training in the future? Kodi a Land O lakes, akuyenera kusintha chani pamomwe amaperekera kapena kupangira maphunziro awo?
9. When training farmers, what topics were the most beneficial to farmers? Why? Which topics were difficult to train farmers in? Why? How could Land O'Lakes have supported you differently in covering these topics? Kodi pakuphunzitsa alimi, ndi mfundo ziti zomwe zinali zofunikira? Kodi ndi mfundo ziti zomwe zinali zovuta kuphunzitsa, Nanga ndi chifukwa chani? Kodi a Land O Lakes, akanakuthandizani bwanji, pamene mfundo zammaphunzirowa zimaphunzitsidwa?
10. What challenges do you face when delivering trainings to project beneficiaries? Kodi mumakumana ndi mavuto otani pamene mumapangitsa maphunziro a alimi womwe anali amodzi iwo amene anali mugulu la alimi a pulojekiti?
11. How do you overcome the challenges? Do you get enough support from Land O'Lakes? What type of support would you have liked to receive? Kodi mavuto amene mumakumana nawowa mumathana nawo bwanji? Kodi mumalandira chithandizo chokwanira kuchokera ku oland O Lakes? Nanga mumalandira chithandizo chotani?
12. What positive things have happened in your community following the delivery of the training topics to them? Kodi mdera lanu lino mwachita zinthu zabwino zotani kudzera kumaphunziro komanso mfundo zamaphunziro amene mwakhala mukupangitsa?

Animal health Umoyo wa ziweto

13. Who are your customers? LFP group members or other people from within the community you serve? Kodi ndi anthu ati amene amalandira chithandizo ndi upangiri kuchokera kwa inu.
14. Why do people access your services? Have people stopped accessing your services? Why do you think this is? Kodi mukuona kuti anthu amabwera kwa inu kudzalandira chithandizo kapena upangiri chifukwa chani? Kodi panopa anthu anasiya kubwera kudzalandira upangiri kapena chithandizo kwa inu? Ngati zili choncho, mukuona kuti anthu asiya chifukwa chani/
15. How much in Malawi Kwacha are you charging for the following services? How were these prices set? Do you think these prices need to change? Why or why not? Kodi anthu mumawalipilitsa ndalama zingati akabwera kudzalandira chithandizo/ Kodi miteno yimeneyi munatsata ndondomeko yanji, poyikhazikitsa? Kodi nanga, mukuona kuti pangakhale pofunikira kuyisintha? Ngati sipofunikira kusintha, chifukwa chani?
    a. Vaccinating a chicken Mteongo wapereka katemera wankhuku
    b. Deworming a Chicken Mtengo wopereka mankhwala a njoka zam'mimba kunkhuku
    c. Deworming a Goat Mtengo wopereka mankhwala a njoka zam'mimba ku mbuzi
    d. Castrating a Goat Mtengo wothenera mbuzi
    e. Dipping a Goat Mtengo wosambitsa mbuzi
    f. Other Mitengo yina, fotokozani
16. What are the most common services people are looking for? Why do you think this is? Kodi ndi ukadaulo wanji womwe anthu amaufuna pafupipafupi kuchokera kwa inu, nanga, mukuganiza ndi chifukwa chani, zili chonchi?
17. What challenges do you face in your animal health services business? Kodi mwakumana ndi mavuto wotani pa bizinezi yanu wopereka ukadaulo komanso upangira pakasungidwe kaziweto kwa anthu?
18. What benefits have you seen since you started this business? Kodi mwapeza mapindu anji, kuchokera ke bizinezi yimeneyi?

19. What future plans do you have for your business? Kodi muli ndi malingaliro otani amtsogolo muno wokhudza bizinezi yanu?
20. Do fellow livestock producers adequately articulate demand for animal health services Kodi anzanu ena amene alinayo mugulu la alimi aziweto, amatha kulongosola bwinobwino zachithandizo chomwe akufuna paulimi wawo waziweto/

Financial Services

21. Are you participating in VSLA activities? If yes why or if not, why not? Kodi inu ndi mmodzi mwa anthu amene ali mu banki Nkhonde? Ngati inde, chifukwa chani, ngati ayi, ndi chifukwa chani?
22. Does the VSLA services connected to animal health business? If so how Kodi za banki nkhonde zimakhudzanako ndi bizinezi yopereka upangiri kapena ukadaulo pakuweta kwa ziweto?
23. How have you linked with the VA in providing your LLF services, if at all? Kodi mumalumikiza bwanji zaulangizi wa za banki nkhonde ndi ulangizi wa zaziweto?

Sustainability

24. Are you going to continue to be LLF after this project in offering training and animal health services? If yes, how and why? If no, why? Kodi pamene pulojekiti yikutha, inu mupitiliza kukhala mlangizi wa zulimi wa ziweto wamdera lanu? Ngati mutapitilize, ndichifukwa chani? Nanga ngati simupitiliza, ndi chifukwa chani?
25. Where will you get your inputs (drugs, vaccines, supplies)? What challenges do you expect to face in acquiring inputs? How will you overcome this?

    Kodi zinthu ngati mankhwala a ziweto muzizipeza bwanji? Kodi mukuona ngati muzikumana ndi mavuto anji womwe muzikumana nawo mtsogolo muno ? Kodi mukuona kuti mutha kumathana nawo bwanji mavuto amenewa?

Tool 5: Key Informant Interview with key Project Staff

Name:
Position:

Appropriateness of the project

1. What has been your role in the implementation of Malawi L4R project? Kodi udindo wanu wakhala wotani mupulojekiti ya Land O Lakes?
2. Which stakeholders did you work with and what was their level of engagement? Kodi magwira ntchito ndi magulu ati a anthu mupulojekiti yimeneyi? Nanga maguluwo amagwira ntchito yanji?
3. Are there objectives and activities of the project which have been very relevant in meeting participants needs? If so why? Kodi ndi magawo ati a pulojekiti womwe akhudza kwambiri zosowa za anthu omwe anali alimi a mupulojekiti?
4. Are there objectives/activities of the project which have been inappropriate in addressing needs? If so why? Kodi pali magawo ena a mupulojekiti omwe sanali wofunikira kweni kweni, ngati ndi choncho, ndi chifukwa chani?
5. Were there any challenges faced during the implementation of the project? How were you able to address these challenges? Kodi panali zovuta zanji zomwe munakumana nazo pamene pulojekitiyi yimayendetsedwa? Kodi nanga mavuto amenewa muanthana nawo bwanji?
6. Please describe any best practices/lessons learned during the implementation of the project? Perekani maphunziro amene mwatengapo kapena kutorako kuchokera kupulojekitiyi

   Please probe based on the following issues; Kambani nawo anthu pa mfundo izi. Wonetsetsani kuti mwakhazikika komanso mwatsndika kwambiri pamfundo zimenezi

   - *Program approach (i.e. livestock procurement, vouchers, producer groups, livestock lead farmers, VSLs) Mobilizing the participants? Mayendetsedwe a pulojekiti mokhudzana ndi: kagulidwe kaziweto, zamavocha, zamagulu a limi, alangizi a ziweto, za banki nkhonde, kosonkhanitsa anthu pamodzi.*
   - *Attendance of participants? Kupezeka kwa anthu*
   - *Participants understanding the information? Kumvetsetsa kwa anthu mumaphunziro*
   - *Participants adopting the techniques? Anthu kuyamba kugwiritsa ntchito zimene aphunzira*
   - *Encouraging community participation? Kulimbikitsa anthu kutengapo mbali*
   - *Encouraging government participation? Kulimbikitsa boma kutengapo mbali*
   - *Linking participants to markets/inputs? Kulumikizitsa alimi kumisika*

7. Any suggestions on how the project could have been designed better? *Mungaperekeko mfundo zotani zomwe zikanathandizira kuti pulojekiti yichitike munjira yina yabwino kuposera mmene yachitikira panopa?*

Effectiveness

8. How have the intended target participants (i.e. livestock households, VSLA group members, community livestock workers, etc.) participated in program activities? How was the participation like among different vulnerable groups? Kodi mukuona kwanu mukuona kuti anthu amene amaayenera kufikiridwa (alimi a ziweto, anthu a Banki Nkhonde, alangizi akumudzi a zaziweto), anafikiridwa? Kodi nanga anthu amene ali pachiwopsyezo chamoyo, anafikiridwa bwanji ndi pulojekitiyi?
9. What have been the challenges and successes for both goats and poultry? Kodi ndi mavuto komanso zopambana zanji zomwe zinalipo pa ulimi wa mbuzi komanso nkhuku?
10. In your opinion, what has been more effective at increasing herd size: Mumaganizo anu, mukuona njira yomwe yachulutsa ziweto ndi iti:
    - Livestock transfer of goats or chickens. Kuperekedwa kwa ziweto, mbuzi komanso nkhuku
    - or improved animal health and decreased mortality through improved animal husbandry practices Kupezeka kwa upangiri ndi ulangizi wa ziweto, komanso kuchepa kwa kufa kwa ziweto.
    - and access to animal health services? Kupezeka kwa ulangizi
11. What L4R activities helped households become more resilient to shocks? Why do you think these were the most beneficial? Kodi ndi zochitika ziti za mupulojekitiyi zomwe mukuona ngati zathandizira kuti anthu akhale ndikuthekera kothana ndi mavuto akudza mwadzidzi? Kodi mukuganiza kuti zimenezi zinali zofunikira chifukwa chani?
12. Are there any internal factors (selection criteria, participation of women, location/province) that influenced the ability of the program to meet the projected targets and outcomes? Kodi panali zinthu zina zamkati kati mwapulojekityi (kasankhidwe ka alimi, kutengapo mbali kwa azimayi, malo womwe pulojekitiyi yimachitikira) zomwe zinathandizira kuti zolinga zapulojekitiyi zikwaniritsidwe mosavuta?
13. Are there any external factors (selection criteria, participation of women, location/province) that influenced the ability of the program to meet the projected targets and outcomes? Kodi panali zinthu zina zakunja kwa pulojekityi (kasankhidwe ka alimi, kutengapo mbali kwa azimayi, malo womwe pulojekitiyi yimachitikira) zomwe zinathandizira kuti zolinga zapulojekitiyi zikwaniritsidwe mosavuta?
14.
15. Were there any expected or unexpected negative consequences or impacts resulting from the program and/or its activities? If yes how were they remedied?Kodi pali zinthu zina zomwe zinali zoyipa zomwe zinachitika kamba ka pulojekitiyi? Ngati ndi inde, munathana nazo bwanji zinthuzi?
16. What improvements could have been made to the program's design or implementation that would have improved the results Kodi ndi zinthu ziti zimene zikanathandizira kuti pulojekitiyi yikhale yopambana kwambiri?

Efficiency

17. Were the resources and activities provided by the L4R program distributed or carried out in a timely manner? What were some of the challenges and how did Land O'Lakes overcome these issues? What are some examples of program success? Kodi kattundu ndi zipangizo zomwe amapereka a Land O lakes, simaperekedwa munthawi yake? Kodi panali mavuto otani mkatikati mwapulojekitiyi, nanga a land O Lakes amathana nawo bwanji?
18. Which components were most critical and/or effective in achieving program objectives and intermediate results? What aspects of the program were particularly ineffective? WhKodi ndi zigawo ziti za pulojekitiyi zomwe zinali zofunikira kwambiri kukukwaniritsidwa kwa zolinga za pulojekitiyi zamsanga msanga? Kodi

nanga ndi zigawo ziti za pulojekitiyi zomwe sizinachitke bwino kweni kweni, nanga ndi chifukwa chani?

19. Please describe any challenges you (or your team) has faced in the management of the project? How have you addressed these challenges? Kodi inuyo kapena gulu lanu linakumana ndi mavuto anji pamene mumayendetsa pulojekitiyi? Nanga zimenezi mumathana nazo motani?
20. Please describe any practices/lessons learned in project management in implementing the project? Kodi ndi maphunziro anji womwe mwapeza pamene mumayendetsa pulojekitiyi?

Sustainability

21. What parts of the project activities or benefits do you expect will be sustained by the beneficiaries after the project? What mechanisms have been put in place to ensure sustainability of program activities and results? Kodi ndi magawo ati a pulojekitiyi womwe mukuona atha kupitirira.
22. Are participants likely to continue using improved animal husbandry and business techniques? i.e. Kodi mmene mukuoneramo, mukuona kuti alimi amene akhala ali mu pulojekitiyi apitiliza kugwiritsa nzeru ndi upangiri pakasamilidwe kaziweto, umene aupeza kuchokera mu pulojekitiyi?
    - Are participants likely to continue to keep livestock as a resilience mechanism?; Kodi alimi apitiliza kusunga ziweto ngati njira yimodzi wothana ndi mavuto akudza mwadzidzi?
    - Are LLFs likely to continue to provide animal health services? Kodi mukuona kuti alangizi akumudzi aziweto, apitiliza kupereka ulangizi kwa anthu?
    - Are VSLAs likely to continue functioning? Kodi ma Banki Nkhonde apitilira kugwirabe ntchito?
23. What parts of the project activities or benefits do you expect the beneficiaries (farmers, LLFs, VAs) to struggle to sustain after the project? Kodi ndi zigawo ziti za pulojekiti zimene anthu atavutikane nazo kuzipitiliza, pamene pulojekitiyi kutha?
24. What are the major factors influencing the achievement or non-achievement of the sustainability of the program and/or its activities? Kodi ndi zinthu ziti zimene zingapangitse kupitilira kwazimene zimachitika mupulojekiyi, kupitilira kapena kusapitilira?
25. What more could the program have done to ensure sustainability of the project activities and benefits? Kodi pulojekitiyi yimayenera kupanga zinthu ziti, kuti kupitilira kwa zimene zimachitidwazo kusayime?

Gender issues

26. How did the project address the constraints faced by women in the livestock value chain? What did the program do well, what could the program have done better? Kodi mavuto a azimayi mupulojekitiyi, amathetsedwa bwanji? Kodi ndizinthu ziti zomwe pulojekiti yinachita bwino, nanga ndi ziti zimene pulojekiti siyinachite bwino
27. Did the L4R approach to gender equality and gender equity ensure balanced involvement of women and men in all program activities? Kodi mmene zimachitikira pakuonetsetsa kuti pasakhale kusiyana pakati pa azimayi ndi azibambo, mupulojekitiyi, zinathandiza kuti zimenezi zikwaniritsidwe?

Tool 6: Key Informant Interviews with Village Agent

Name:

Position:

District Name		*EPA Name*			
VILLAGE		*VDC Name*			
Facilitator		*Note Taker*			
Date		*Time Start*		*Time End*	

Choice as VA

1. Why were you selected to service your community as Village Agent? Kodi inuyo munasankhidwa bwanji kuti mukhale Malngizi wa za mabanki Nkhonde
2. How do you feel to be a Village Agent? Kodi mumamva bwanji kukhala mlangizi wa banki Nkhonde
3. Generally, how have your work impacted on you and other farmers in livestock enterprise or livelihood development Kodi mmene muoneramo ntchito yanu yaulangizi wa zaBanki nkhonde, wakhudza bwanji umoyo wa anthu kudera lanu lino?

Trainings Za maphunziro

4. What did you learn about savings and business from Land O'Lakes? Kodi munaphunzira zotani zokhudza za kusunga ndalma ndi mabizinezi
5. Which topics were most useful to you? Which topics were more difficult to you? Kodi mumaphunziromo ndi mfundo ziti zomwe zinali zofunika kwambiri kwa inu, komanso ndimfundo ziti zinali zovuta kuzimvetsa
6. How can you describe the quality of these training from Land O Lakes Trainers? Kodi munganenepo zotani
    a. Content Tsatatanetsatane wake
    b. Presentations Maphunzitsidwe ake
    c. Materials zamkati mwamaphunzirowo
7. How could Land O'Lakes improve the way they provide training in the future? Kodi a Land O Lakes akuyeneraka kusintha zinthu ziti kuti maphunziro awo adzikkhala wothandiza?
8. What topics did you cover with your farmers since learning from Land O Lakes? Kodi mwaphunzitsa ziti ziti alimi womwe inuyo mumawafikira?
9. Which topics were more difficult for you to teach? Kodi ndi mbali yiti kapena mfundo ziti mumaphunzirowo

zomwe zinali zovuta kuphunzitsa?

10. What challenges do you face when delivering trainings to project beneficiaries? Kodi mamukumana ndi mavuto otani pamene mukuphunzitsa?
11. How do you overcome the challenges? Do you get enough support from Land O'Lakes? Kodi mavuto amene mumakumana nawowa, mumathana nawo bwanji? Kodi mumalandira chithandizo chokwanira kuchokera ke Land O Lakes
12. Did group members ask for training in additional topics? What were these? Were you able to support their request? Where did you get the information to support the training? Kodi magulu a alimi amene mumagwira nawo ntchito, amapemphako maphunziro apadera, pambali pazimene mumawaphunzitsazo? Nanga zimene ankapemphazo ndi ziti? Nanga inuyo mumatha kuwathandiza? Nanga mfundo zowathandizira mumazipeza bwanji?
13. Have you resolved any challenges? Give examples of how resolved challenges. Kodi mavuto onse munathana nawo? Perekani zitsanzo
14. What positive things have happened in your community following the delivery of the training topic to them? Kodi ndi zinthu ziti zabwino zomwe zachitika mmudzi mwanu muno chifukwa chakuti inuoy mwapereka upangiri ndi maphunziro

Financial services

15. How are VSLA services helping communities? Kodi ma banki nkhonde akuthanizira bwanji mdera lanu lino?
16. How can you explain the demand for VSLA services in your area? Are fellow colleagues able to articulate demand than before the project? Kodi mungafotokoze bwanji zamapempho womwe mumalandira wokhudza za ma banki nkhonde mdera lanu lino? Kodi anzanu kapena alimi womwe inuyo mumawayendera, amatha kufotokoza bwino bwino za zomwe akufuna kuposa panthawi yomwe pulojekitiyi kunalibe?
17. How has participation in the VSLA changed your fellow farmers? Kodi umoyo wamamembala agulu la banki nkhonde wasintha bwanji? What do VSLA members normally use loans from the VLSA for? Kodi anthu akatenga ngongole kuchokera ku banki nkhonde, ndalamazo amagwiritsira ntchito yanji?
18. What do VSLA members normally use end of year savings for? Kodi nanga ndalma zomwe anthu amagawana pakutha kwacha za banki nkhonde, amazigwiritsa ntchito yanji?
19. Have you ever come across people who have used money saved or borrowed in the VSLA on: Kodi inuyo mwaonapo kapena kumva kuti anthu agwiritsa ntchito ndalama za banki nkhonde mu njira izi:
    a. Livestock purchases? Kugula ziweto
    b. Livestock health? Kugula mankhwala a ziweto
    c. Crop inputs? Kugula katundu wa ulimi monga feteleza
    d. School fees? Kulipira sukulu
    e. Food? Kugula chakudya
    f. What kind of food? Chakudya chanji?
20. What role does the VSLA savings/loan serve in a household's coping strategy? What would a household do if they did not have access to loans through the VSLA? Kodi mabanki nkhonde amathandizira bwanji, pankhani yakupirira kumavuto akugwa mwadzidzi pabanja? Kodi pakanakhala kuti kulibe ma banki nkhonde, bwenzi mabanja akugwiritsa ntchito njira zanji kuti athandizike pamavuto akugwa mwadzidzi?

21. Why do you think VSLA largely comprise women? Who decides expenditure of the income? Kodi ndi chifukwa chani mamembala ambiri amabanki nkhonde amakhala azimayi? Kodi ndi ndani amene amapereka ziganizo zamomwe ndalama zopezeka pakhomo, zigwiritsidwire ntchito?
22. Has the decision on how to spend money shifted or become balanced as a result of the project.

    Kodi ndondomeko yopereka ziganizo zamomwe ndalama zopezeka pakhomo, zigwiritsidwire ntchito, zasintha bwanji, ciyambireni chitukuko cha ziweto?

Malawi Livestock for Resilience Final Evaluation
Requests for Proposals

Executive Summary

This document contains the Request for Proposals (RFP) for conducting a final evaluation of Land O'Lakes' Livestock for Resilience (L4R) project currently implemented in Dowa and Ntchisi Districts of Malawi, funded by the Office of Foreign Disaster Assistance (OFDA) Of the United States Agency for International Development (USAID). Land O'Lakes is issuing this RFP to solicit applications from potential evaluation teams to conduct the final evaluation. This document includes background information on the OFDA-funded L4R program, the desired methodology, including objectives and illustrative questions, the timeframe for conducting the final evaluation and a list of the deliverables. This document also contains information about the type of expertise that Land O'Lakes seeks for this activity and guidance on how to submit a proposal to conduct the final evaluation. All proposals are due to Land O'Lakes by Monday, March 28, 2016 at 5pm local time. Questions about the RFP are due by Friday, March 18th, 2016 at 5pm local time.

Background

In July 2014, Land O'Lakes was awarded a 23-month project called Malawi Livestock for Resilience (L4R) with funding from the Office of Foreign Disaster Assistance (OFDA) under the United States Agency for International Development (USAID). The goal of the project is to build the resilience of disaster-prone communities in Central Malawi to withstand climatic and economic shocks. The project works in 10 wards in Dowa and Ntchisi Districts where farmers rely mainly on rain-fed crops, including maize and tobacco, to earn cash and to feed their families.

L4R uses a community-focused approach to work with a target of 6,000 vulnerable households (reaching 30,000 people in total) to promote the expansion and maintenance of small livestock assets to facilitate a shift toward more diversified livelihoods and increase the capacity of vulnerable households to adapt to shocks. Specifically, the project has four components:

Expand Livestock Asset Base: L4R is distributing locally available goats and chickens to a target of 2,000 households (500 to receive goats and 1,500 to receive chickens). As of the end of December 2015, the project had distributed goats to 418 households and chickens to 190 households.

Increase Capacity to Maintain Livestock Asset Base: L4R is facilitating the formation and capacity building of producer groups. The members of these groups are trained in livestock husbandry, improved breeding, marketing techniques, and group formation and management. The trainings are provided through the training of trainers approach where 150 producers, or Livestock Lead Farmers (LLFs) were selected for training from the project and those producers in turn trained the other members of their producer group. As of December 2015, the project had formed 300 producers groups, trained 150 LLFs, who in turn trained 7,277 producer group members. .

Improve Capacity and Access to Animal Health Services: L4R is equipping and training the same 150 LLFs in animal health preventative health, disease diagnosis and treatment, and is linking them to private sector input and public animal health service providers. The LLFs provide animal health services to members of their producer groups and the immediate community. As of the end of December 2015, 150 LLFs have been trained, with 138 currently providing services. The CLWs have provided animal health services to 11,202 both producer group and non-producer group households.

Improve Capacity of Households to Plan, Save, and Mitigate Risk: L4R, through 150 trained village agents, is

training three members from each targeted household in household economics, risk mitigation and planning, and business practices. The project is also providing capacity building to households to establish village savings and loans. As of December 2015, 2,673 individuals had received household enterprise training.

Objectives of the Evaluation

The final evaluation will assess the appropriateness of the program approach, effectiveness of the implementation in achieving the expected results, and sustainability of the program activities and outcomes. Specifically, the final evaluation will meet the following objectives:

- Assess the appropriateness of the strategies employed by Land O'Lakes in the program given the Malawian context;
- Assess the degree to which the project has met its projected goals, objectives, outcomes and targets and explain deviations using an evidence based approach; (see Appendix 2 for a list of the key indicators)
- Provide an objective description of the overall effectiveness and sustainability of the program and its various activities;
- Identify key strengths and weaknesses of the program
- Identify key lessons learned and recommendations which should be adopted by Land O'Lakes for similar resilience programs in Malawi or elsewhere in Africa

Desired Methodology

The final evaluation methodology and data collection tools will be similar to that of the baseline and midterm review, so that the end of program evaluation data and results may be compared with baseline and midterm data and results. The final evaluation should use both quantitative and qualitative methods, including but not limited to: a household survey and focus group discussions with program participants, and key informant interviews with CLWs, VAs, L4R staff, key leaders, government officials, and other relevant stakeholders. The household survey sample should be selected randomly from the project participants and the sample size should ensure a representative sample with a 95% significance level with a 5% confidence interval. The sample frame is currently 7,277 goat and chicken producer households, of which 840 have received chickens and 674have received goats, as of March 7, 2016.

Note that the baseline data was collected from the general population, before the participants were selected. In order to compare the populations effectively, the contractor should utilize a regression analysis to account for differences in key attributes of the samples.

The consultant will propose the methodology according to the above criteria and finalize it in consultation with Land O'Lakes.

Scope of Work

The contractor will be expected to take the lead in the methodology design, data collection, analysis and interpretation of the evaluation with consultation and input from Land O'Lakes project staff. The selected contractor will implement the following activities:

- Review of Documents: Undertake review of the L4R project documents and other relevant documents including, but not limited to, the following:
  - Project agreement with USAID/OFDA
  - The L4R Performance Monitoring and Evaluation Plan (PMEP)
  - Baseline report & data collection tools
  - Mid-term report & data collection tools
  - Quarterly Reports submitted by Land O'Lakes to USAID/OFDA;
  - Any other program documents which will enable the final evaluation team to get acquainted with the

program
- Relevant Government of Malawi reports and documents for background information and establishing the socio-economic and political context in which the L4R took place.

Refinement of methodology and data collection tools: Based on the methodology and data collection tools from the baseline, mid-term, as well as the current monitoring tools, the contractor, in close collaboration with the Land O'Lakes, will do the following:

- Develop a methodology for the final evaluation, including a sampling frame, sampling technique and sample sizes for both quantitative and qualitative surveys.
- Revise the tools and create any new tools necessary to answer the evaluation questions.
- Based upon a reading of the program documents, propose any additional topics or issues for analysis in the final evaluation.
- Submit implementation report and data collection tools to Land O'Lakes for review and incorporate feedback in final version.

Field Data Collection

- Plan and coordinate the necessary logistics to collect the data in accordance with the selected methodology.
- Pre-test, edit, translate (if needed), finalize and reproduce the survey instruments. o Recruit, train and orient field interviewers and enumerators.
- Carry out the fieldwork using own transportation, including household survey, focus group discussion with farmers, and key informant interviews with key project participants: CLW/Lead Farmers, Village Agents, Government Officials, Local Leaders, Land O'Lakes program staff, etc.

Data entry, analysis and reporting

- Enter, clean, synthesize, analyze, and interpret data from both the quantitative surveys and the qualitative studies using approved statistical packages.
- Prepare and submit data set(s) with relevant documentation to Land O'Lakes
- Prepare a draft final evaluation report addressing the objectives and questions of the final evaluation outlined in this RFP and recommendations on the L4R project for potential similar future project for review by Land O'Lakes staff and stakeholders.
- Develop a Power Point presentation of evaluation findings, present and submit to Land O'Lakes and stakeholders.
- Based on the feedback from project participants, stakeholders, Land O'Lakes program staff and technical advisory staff based in the USA, prepare a final evaluation report that includes any revisions required to meet the comments and suggestions provided during the feedback process