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Evaluation Report

Functioning and Nutrition Sensivity of the Livestock Pass-on Scheme Implemented Under GIZ Food and Nutrition Security Programme (FNSP)

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Madalitso Chidumu
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ABBREVIATIONS AND ACRONYMS

ASF	Animal Source Food
ASF I	African Swine Fever
AVO	Assistant Veterinary Officer
BA	Black Austrolorps
CADECOM	Catholic Development Commission
CCPP	Contagious Caprine Pleuro-Pneumonia
DADO	District Agriculture Development Officer
DAES	Directorate of Agricultural Extension Services
DAHLDO	District Animal Health and Livestock Development Officer
EAM	Evangelical Association of Malawi
EPA	Extension Planning Area
FFI	Food Frequency Index
FFQ	Food Frequency Questionnaire
FGD	Focus Group Discussion
FNSP	Food and Nutrition Security Programme
FR	First Recipients
GIZ	*Gesellschaft für Internationale Zusammenarbeit GmbH*
IHF	Integrated Homestead Farming
IP	Implementing Partner
IYCFP	Infant and Young Child Feeding Practices
KPI	Key performance Indicator
KULIMA	Kutukula Ulimi m'Malawi
LC	Local Chicken
LPoS	Livestock Pass on Scheme
NECs	National Nutrition Education and Communication
NSO	National Statistics Office
OR	Odds Ratio
PLW	Pregnant and Lactating Women
PoR	Pass on Rate
SEP	Social Economic Profile
UP	United Purpose
VSLA	Village Savings and Loan Association
WHO	World Health Organization

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The GIZ Food and Nutrition Security Programme (FNSP) aims to improve the nutrition situation and resilience to food crises of women of reproductive age and children under the age of two in the districts of Dedza and Salima. Key result areas of the programme are to improve dietary diversity of women and minimum acceptable diet of children and improve resilience of households in the target communities[1].

The GIZ-FNSP livestock pass-on scheme is promoted to improving and diversifying diets of Pregnant and Lactating Women (PLW) and children of 0-24 months. The scheme uses a "snowball" system where the first recipients of livestock species (goats, pigs and chickens) pass on the first offspring(s) to a second beneficiary. The process continues until all farmers in a group or community received an animal. The approach aims at ensuring that communities can maximize limited resources through sharing of the benefits.

Methodology and Context: For this livestock study, the team used mixed methods that involved key informant interviews, Focus Group Discussions (FGDs) and Household Surveys with a total of 284 beneficiaries and non-beneficiaries to collect qualitative and quantitative data. The household survey included Food Frequency Questionnaires (FFQ) to capture frequency of consumption and portion sizes of animal source foods (ASF) at household level paying attention to foods from livestock distributed via the scheme. For this study, data was collected, analysed, and interpreted for those in the LPoS scheme (intervention) and then compared to those not participating in the scheme (control). Purposive sampling of key informants was employed, and random sampling of cases and controls was used for this study (more on this is presented in section 2,2,4 paragraph 3).

Findings of the livestock study are summarized and presented below. Detailed findings are presented in Section 4.

a) <u>Implementation Trends of the GIZ -FNSP Livestock Pass -On Scheme</u>

- LPoS has contributed to promotion of IHF in some households through the manure realized from the livestock and used in backyard gardens.
- The targeting of the beneficiaries through care groups by IPs makes it easy for follow-up of the pass-on trends as well as promotion of peer learning on livestock husbandry practices.

[1] Terms of Reference GIZ-FNSP Livestock Study

- The LPoS targeted beneficiaries as per the FNSP target group; women (pregnant and lactating), smallholder farmers and poor households.
- The current beneficiary selection criteria do not include an assessment of the household capacity to take care of the livestock that they are given. This has resulted into some beneficiaries being given livestock that they find it difficult to care and manage such as Black Austrolorps (BA) chickens provided to beneficiaries by CARE in Salima District.
- The livestock provided by the FNSP i.e. goats and pigs in Dedza and chickens and goats in Salima are similar to what other NGOs such as the EU funded " Kutukula Ulimi M'Malawi (KULIMA)" are providing in the districts, the major difference is on the numbers provided to first line recipients as most of the NGOs follow government recommended number of stocks. The other NGOs provide a drug box to the groups (part of the government recommendation) which helps to treat pests and diseases which is not the case with the FNSP supported LPoS.
- The FNSP and Implementing Partners (IPs) currently do not have standard operating procedures (SOPs)[2]for the LPoS to clearly document procurement, supply, trainings, time of pass-on etc. SOPs are written documents that describe, in a step-by-step manner, routine procedures to be carried out in a program with the goal of ensuring consistent performance of tasks to achieve a quality outcome and ensure that everyone involved knows exactly how to perform tasks. Given that the scheme is implemented by two different IPs but for one program (FNSP), an SOP is much Ideal for standardizing implementation and results. Availability of these will ensure uniformity in procedures that are not only in line with program objectives but also national guidelines for the implementation of a livestock pass-on.
- They are no clear Key Performance Indicators (KPIs) and targets for the scheme (this is surprising!) for the FNSP as well as from the IPs making it difficult to measure the intended successes and achievements. This has also made this evaluation to be more of a "situational analysis" due to lack of KPIs and targets to use as a benchmark for measuring and evaluating progress. Other NGOs implementing LPoS set clear targets and KPIs such as on Pass on Rates (PoR) for a specific period etc. Further, we observed limited information sharing due to unsystematic reporting and documentation of success stories by the IPs.
- Except for the number of Black Austrolorps (BA) chickens (nine hens and one rooster) provided to Initial Beneficiaries (IBs) by CARE in Salima District, the rest of the livestock (goats and pigs) provided to initial beneficiaries/first recipients in both Dedza and Salima districts were not as per the government required quantities for a pass-on scheme (DAES 2014). The number of pigs and goats provided to initial beneficiaries by the FNSP were a maximum of two (females only) whilst the government requirements for livestock pass-on for goats is a minimum of five (1 male and 4 females), for pigs a minimum of three (1 male and 2 females), and a minimum of ten for chickens (1 male and 9 females). Further, the exotic breed of chickens (BAs) provided by CARE in Salima, are not as per the government recommended breed for a pass-on scheme. The local breed is the recommended one for chickens. In Salima District, some goats procured by CARE and distributed to beneficiaries were eventually sold by beneficiaries and the beneficiaries then procured other breeds citing breeding problems on the ones that they were given.

[2] An SOP is different from a project document- It lays out have things will be done.

- Provision of fewer animals and females only (mostly for goats and pigs) to initial beneficiaries/first recipients has made it challenging to timely realize the off-springs resulting into delays to timely pass-on to second line and other subsequent beneficiaries thereon.
- In both districts, beneficiaries of goats and pigs are expected to give two off-springs to other beneficiaries and given that they are not provided with males, they also must give one off-spring if they hired a male for breeding. This is common with pigs in Dedza District and reported by beneficiaries to be challenging.
- LPoS beneficiaries are unaware of appropriate times to pass-on livestock. Recipients of chickens mentioned that they are expected to pass on when chickens are six weeks (1.2 months) rather than at 4 months as per government recommendation. Those that receive goats in the FNSP supported LPoS think they should pass on when the goats are two months old as compared to government recommended 5-7 months. For pigs, the government recommended pass-on period is when the off-spring has attained 3-4 months as opposed to beneficiary expectation of 2 months.
- Beneficiaries not only did not know the by-laws but were also not able to produce records of the by-laws. Beneficiaries mentioned that they did not take part in the development of the by-laws rather these were given to them by IPs. As such the community does not hold the beneficiaries accountable for loss of livestock, poor care, or any other malpractice. This makes it difficult to reinforce by-laws and community ownership of the program hence compromising sustainability of LPoS during and after the project
- There are some disparities in the database of beneficiaries especially in Dedza where the data that UP has is different from the one that extension workers have. This can also affect access to extension services on the part of beneficiaries.

b) Supply of Livestock

- In Salima, 52.2 % of initial beneficiaries (IBs) received ten chickens, 44.3 % of IBs received two goats, 3.5 % of IBs received one goat. In Dedza, 57.0 % received one goat, 41.2 % of the beneficiaries received one pig 1.8 % received two goats.
- There are few established local markets for most livestock in all the TAs. In Dedza District, most of the suppliers of the goats and pigs are identified by each beneficiary within their locality and paid through a voucher. In Salima District, the livestock provided to IBs were procured by CARE from Lilongwe and delivered to Salima like in the case of Black Austrolorps (BA) chickens locally known as "*Mikolongwe.*"
- In both supply chains of the two IPs, there is no documented guarantee periods with the suppliers. This results into beneficiaries to have burden of care in case of diseased or immature stocks being supplied. This results in delays of the pass-on and makes it expensive to take care of the livestock.

c) Distribution of Livestock

- When beneficiaries were asked on what livestock they would prefer, in Dedza (N=114), the top three most preferred livestock are pigs (n=53), goats (n=44), and chickens (n=12). In Salima (N=115), the top three most preferred livestock are goats (n=97), chickens (7), and cattle (n=6).

- Despite the fact that prior to distribution members of the community were sensitized on what they will receive, incidences of 'imposing' the livestock on the beneficiaries were reported e.g. in Salima some beneficiaries were given chickens when they preferred and were communicated to that they will receive goats.
- Mode of delivery or distribution of livestock showed that 75.9 % of the beneficiaries received their livestock by being provided to them within their communities, 22.4 % through a livestock fair, 1.8 % through the pass-on scheme (i.e. received from IBs).
- In Dedza only 24.6 % of the beneficiaries have managed to pass-on their livestock and in Salima only 20.0 % have managed to pass on their livestock. This is relatively low as similar LPoS by other NGOs and agencies (e.g. Word Alive, Catholic Development Commission (CADECOM), Eagles Relief, Evangelical Association of Malawi)through the KULIMA BETTER Project) in the same districts do have an average pass-on rate (PoR) of more than 45.0 % between 6-12 months from inception of the scheme.
- Of the initial beneficiaries that managed to pass on their livestock, beneficiaries of goats passed on most (86.3 %), pigs (7.8 %), and chickens (3.9 %).

d) Management of Livestock

- Beneficiaries prioritize kraal construction for pigs rather than goats and chickens. These findings were similar even for non-beneficiaries. This implies that beneficiaries will not construct kraals for goats or chickens where follow-up or guidelines are not strict. There is need to emphasize by-laws and their reinforcement for kraal construction led and enforced by local leadership.
- Most of the kraals are constructed by people who have not participated in trainings. In Salima District, the responsibility for kraal construction is in 60.9 % of the beneficiaries done by husbands of beneficiaries, 17.5 % by other family members 10.5 % by hired labourers, 8.8 % by children, 2.3 % by the beneficiaries themselves. In Dedza District, the responsibility for kraal construction is in 60.8 % of the beneficiaries done by the husbands/spouses, 21.5 % by other family members, 7.6 % by children. 6.3 % by the beneficiaries themselves, 3.8 % by others.
- The responsibility to feed livestock is on beneficiaries (43.5 %), husbands (15.8 %), children (20.0 %), other family members (11.7 %), and others in the form of hired labourers, church members etc. (9.2 %). The Black Austrolorps (BAs) chickens provided to beneficiaries in Salima requires supplementary feeding and this is only done by 40.6 % of beneficiaries. This might also have contributed to the low Survival Rate (SR).
- Major challenges met during feeding include, scarcity of feeding materials (47.5 %) despite the fact that in Salima lead farmers are trained on how to store livestock feed for the lean season. Other challenges are restriction of movement for fear of livestock entering neighbours' gardens (13.3 %), lack of manpower (9.2 %), and lack of skill in preparing feed (1.7 %).
- When asked of the most common diseases affecting livestock in their area, respondents mentioned that the most common disease for chickens in both districts is Newcastle disease (avian orthoavulavirus 1) locally known as "*Chidelu"* mentioned by 100.0 % of respondents in Salima and 86.7 % of respondents in Dedza. For goats, Respondents mentioned that the most frequent diseases in Dedza (50.0%) and Salima (34.0%) for goats

is Gastrointestinal *Parasitism* (diarrhoea). For pigs, 86.7 % of respondents mentioned that the most frequent diseases are "coughing" and the African Swine Fever (ASF 1) locally known as "*Chigodola"*

- There is a relatively high number of beneficiaries that do nothing to a livestock when infected by pests and diseases (32.7 %) in both Salima and Dedza.
- Only 18.8 % in Dedza and 7.9 % in Salima will take the livestock to a Veterinary Officer largely due to limited availability of these in the communities. These figures are expected to improve in the future following introduction of community drug boxes in December 2020 after the evaluation had been conducted.
- In Dedza, 20.0 % of the beneficiaries have access to and can administer vaccine to livestock and 25.0 % have access to and can give medication to a livestock. In Salima, 24.3 % of the beneficiaries have access to and can administer vaccine to livestock and 32.2 % have access to and can give medication to a livestock.

e) Training Needs

- 59.4 % of beneficiaries have received trainings on livestock management and husbandry practices as compared to only 6.9 % of the control group.
- The content of trainings includes livestock housing, feeding, breeding, and pest and diseases control. The training curriculum is developed by District Animal Health and Livestock Development (DALHD) officials and at the moment it lacks components on how beneficiaries can develop community by-laws to guide beneficiaries on operational aspects of the scheme.
- Of those that received training in livestock management, 86.0 % of the beneficiaries got the training before receiving the livestock, 9.6 % after receiving the training, and 4.4 % received before and after receiving the livestock.
- Trainings target only beneficiaries, yet most of the livestock husbandry practices such as kraal construction need support of husbands and other family members.
- 63.7 % of the beneficiaries got the training from IPs (CARE and UP), 25.0 % got the training from government extension workers whilst 11.3 % got the training from other NGO extension workers, fellow beneficiaries, family members etc.

f) Sale and Consumption of ASF

- Sale of livestock products has been low in both Salima and Dedza. 14.5 % of LPoS beneficiaries have been able to sell meat, 13.1 % sell eggs, 3.2 % sell milk, 1.1 % sell hides. This is expected and appropriate as the program is relatively new in salima and also high sales may result in beneficiaries not to have livestock to then pass-on.
- Backyard gardens are available in 39.6 % of LPoS beneficiaries in Dedza District, and in Salima 60.4 % do have these. Challenges to collecting manure for backyard gardens are due to the free-range raising of livestock, types of kraals constructed and number of stocks available.
- The most frequently consumed ASF is fish (not provided by the LPoS) i.e. 40.1 % consuming 2-3times a week and 15.0 % consuming fish daily followed by eggs 40.8 % consuming fried eggs once a week and 15.0% consuming fried eggs 3-4 times a week. This is because LPoS beneficiaries sell eggs to in turn buy small fish (usipa). This is due to affordability to meet household consumption demands.
- Intrahousehold gender and power dynamics make beneficiaries regard the livestock as owned by their husbands and entails that husbands are expected to make critical decisions on care and usage of livestock.

CARE in Salima is improving the situation through gender dialogues on decision making within the household administered to couples in the communities

Recommendations: The team suggest the below recommendations based on the findings and results. Detailed recommendations are provided in Section 5:

Strategic Thrust	Recommendations
To improve effectiveness, relevance, and efficacy of the LPoS	**Immediate (within 3 months)** 1.That GIZ and IPs (UP and CARE) **re-design the LPoS** through a thorough stakeholder consultation to implement it as per government minimum standards of LPoS but aligned to the improved nutrition of PLW and children (Key question: Is LPoS ideal for improving nutrition?) 2. **Establish measurable Key Performance Indicators** and targets for the FNSP supported LPoS across the IPs. 3. That GIZ and IPs (UP and CARE) **develop/review Standard Operating Procedures (SoPs)** to guide procurement processes and overall implementation on aspects like on trainings etc, M&E as well as knowledge management. 4. Include **household capacity assessment to care for the livestock** (manpower, cost of feeding, pest and disease control) as one of the criteria for targeting of beneficiaries. 5. That GIZ consider **employing a Livestock Technical Officer** to work with the IPs to guide and advise on better choice of livestock, husbandry practices etc. 6. That IPs (CARE and UP) **review and communicate the period by which beneficiaries** are required to pass-on to subsequent beneficiaries and align them to government recommended standards (passing on chickens when the offspring are 4 months old, pigs when 3-4 months old and for goats when they are 5-7 months old) 7. That IPs (CARE and UP) **facilitate the procurement of government recommended breeds** for LPoS. For chickens and goats, the recommended breed is the indigenous/local breed and for pigs both indigenous and exotic breeds are recommended. 8. That IPs (CARE and UP) **review the supply of livestock to initial beneficiaries** to be based on government recommended quantities that include provision of males to facilitate timely breeding. 9. That IPs (CARE and UP) will for the livestock management trainings **include husbands and other family members** that will support the beneficiaries in key livestock husbandry practices.

	10. That GIZ and IPs work with Ministry of Agriculture as well as other stakeholders to **design a comprehensive livestock management training curriculum** that will include other essential components such as constitution development etc 11. That the IPs (UP and CARE) will **develop graphical (pictorial) beneficiary user manuals** that will guide beneficiaries in key livestock husbandry practices such as kraal construction and other husbandry practices to be done by beneficiaries. **Medium and Long Term (after 3 months)** 12. That IPS (CARE and UP) liaise with other like-minded implementers to **lobby for increased resource allocation to livestock production at district level**.
Improve the nutritional benefits derived from the LPoS	1.That the IPs (CARE and UP) **enhance the assertiveness of women** and address gender and power barriers that hinder decision making on use and consumption of ASF through incorporation of gender and power dynamics topics in the care group sessions. 2. **Promote livestock that provides immediate nutritional benefits** such as chickens. 3. That GIZ will work with the IPs to **develop a Social and Behaviour Change Communication (SBCC) Strategy for the program to work** around taboos and myths surrounding animal source food consumption (such as on goat milk and eggs for pregnant women and children) as well as the aim of the FNSP.

This report has **seven** sections: Section 1: **Background & Context** (FNSP overview, study aims, objectives, key areas of inquiry, and LPoS conceptual framework); Section 2: **Methodology and Implementation of the Livestock Study;** Section 3: **Socio-Demographic Characteristics of Respondents**; Section 4: **Findings;** Section 5: **Summary and Conclusion;** Section 6: **Recommendations**; Section 7: **Annexes**

1 BACKGROUND AND CONTEXT

1.1 INTRODUCTION

The GIZ Food and Nutrition Security Programme (FNSP) aims to improve the nutrition situation and resilience to food crises of women and children under the age of two in the districts of Dedza and Salima. Key results of the programme are to improve dietary diversity of women and

minimum acceptable diet of children but also to improve the resilience of households in the target communities.

The programme focuses on four fields of activity: (1) Improve knowledge, attitudes and practices related to nutrition and hygiene; (2) Strengthen the resilience of households and communities to food insecurity; (3) Strengthen the planning and coordination of nutrition--responsive measures and (4) Feed lessons learnt into the bilateral portfolio and mainstream scalable approaches in national processes.

The FNSP supported livestock pass-on scheme is implemented by the two implementing partners (IPs), CARE in Salima since 2018 and United Purpose in Dedza since 2016. As per the beneficiary databases of the IPs (attached), the FNSP supported LPoS is currently benefitting a total of 2095 beneficiaries in six Traditional Authorities (TA) in both Dedza and Salima District. The LPoS beneficiaries in the FNSP are provided with goats, pigs and chickens. They are expected to pass on the animals' offspring to second line beneficiaries and the chain continues to other subsequent beneficiaries. Current beneficiaries of the FNSP supported LPoS are pregnant and lactating women (PLW).

Axis Consulting supported the FNSP program in evaluating the functioning and nutrition sensitivity of the LPoS under the FNSP. This report presents findings and provides recommendations for improving the scheme.

1.2 OBJECTIVES OF THE STUDY

The **objectives** of the livestock study included:

- Assessing the i*mplementation* of the schemes in terms of livestock procurement, selection criteria, pass-on rate, survival rate, and household capacities for livestock keeping.
- Documenting best practices and successes as well as *challenges* for the implementation of the scheme, *barriers* for the consumption of animal-based products and *good practices*.
- Providing *recommendations* for further implementation of the scheme under the FNSP.

1.3 KEY AREAS OF INQUIRY

This study **focused** (but not limited) on the following **key areas of inquiry**.

- Implementation trends of the LPoS
- Supply of Livestock
- Distribution of Livestock

- Training Needs
- Management of Livestock
- Sale and Consumption of ASF

2 APPROACH: METHODOLOGY AND IMPLEMENTATION

2.1 APPROACH

The team used mixed methods that involved key informant interviews (KIIs), focus group discussions (FGDs) and household surveys (with beneficiaries and non-beneficiaries) to collect qualitative and quantitative data. The Household Survey Questionnaire included a food frequency questionnaire (FFQ). This was applied to capture frequency of consumption and portion sizes of animal source foods (ASF) paying attention to foods from livestock distributed via the scheme. LPoS beneficiary households were compared to non-beneficiary households with similar geo-ecological, economic, and socio-demographic backgrounds. Data were collected, analysed, and interpreted for those in the LPoS scheme (treatment) and then compared to those not participating in the scheme (control). Purposive sampling of key informants and random sampling of case and controls was used for this study.

2.2 METHODOLOGY

2.2.1 Primary and Secondary Literature Review

For primary and secondary desk literature review the team focused on the following documents as indicated in the table 1 below:

Table 1: Primary and Secondary Documents Reviewed

Document (s)	Author	Year
Dedza District Social Economic Profile	Dedza District Council	
Salima District Social Economic Profile	Salima District Council	
Policy Document on Livestock in Malawi	Ministry of Agriculture	2004
DAES Guidelines on Livestock Pass-on	Ministry of Agriculture	2014
Integrated Homestead Manual		

Malawi National Multi- Sector Nutrition Strategic Plan (2018-22)	Ministry of Health	2018
Malawi National Multi-Sector Nutrition Policy (2018-22)	Ministry of Health	2018
Livestock Workshop Report Minutes	GIZ, UP, IP	

2.2.2 Sample size determination

The study had a sample size of 284 with Dedza (n=145), and Salima (n=139) [3] as presented in Figure 1 below.

This sample was drawn at random from a list of LPoS beneficiaries provided by CARE and UP. A total of 284 LPoS beneficiaries (*n=229*) and non-beneficiaries (*n= 55*) in both Dedza (*n=145*) and Salima (*n=139*) were interviewed. These were randomly identified from the LPoS beneficiaries list provided by United Purpose and CARE respectively. The control group was sampled using random sampling assisted by promoters in the same enumeration areas of the beneficiaries. Upon arrival in the village, promoters provided a list of 12-15 non-beneficiaries who fit the program inclusion criteria to team leader. A random number table was then used to sample 5 non-beneficiaries to be interviewed.

Figure 1: Sample Size for the FNSP Livestock Study

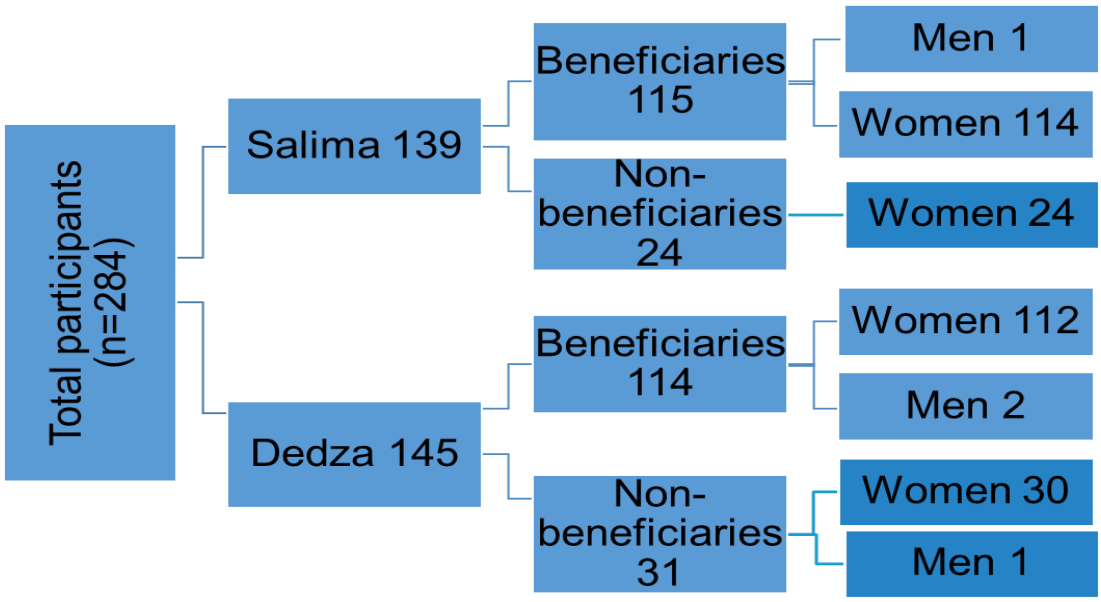


Figure 1: Sample Size for the FNSP Livestock Study

2.2.3 Training of enumerators and pre-testing of tools

[3] The pre-determined sample size for the study was 250

Axis Consulting used two supervisors and twelve enumerators that had prior experience with data collection in similar assignments. The team leader and associate consultants supervised the team by ensuring the field data collection work plan (See Annex 1) was being followed as well as verifying correct documentation of information. Every field workday the supervisors had meetings with the enumerators to review the day's work and plan for the next day. The enumerators were trained for two days to acquaint them with the tools for this assignment, data quality control measures, data management protocol and daily enumeration scheduling. Pre-testing of tools was done at traditional authority (TA) Kapenuka in Dedza and feedback was provided to the rest of the team. The team incorporated all feedback from the pre-testing exercise to finalise the tools.

2.2.4 Data Collection

Data was collected by enumerators through 1) Household surveys (that also included a food frequency questionnaire) with LPoS beneficiaries and non-beneficiaries, 2) focus group discussions, and 3) key informant interviews. These are described below:

a) Household Surveys

Data collected in electronic tablet using ODK collect software. The same questionnaire was used for both beneficiaries and non-beneficiaries. Sections of the questionnaire included socio economic and demographic characteristics, livestock supply and utilization, livestock care and management, livestock sales and consumption of animal source foods.

Consumption of animal source foods included a food frequency questionnaire that assesses how often particular food items of interest is consumed by target population (Annex 3). Portion sizes were categorised as large, medium or small based on pictorial references as attached in the questionnaire. Interviewees were shown the pictures and asked to identify the closest portion to what they had consumed.

b) Focus Group Discussions (FGDs)

A total of six Focus Group Discussions (FGDs) with LPoS beneficiaries (treatment group) were carried out in both Salima and Dedza (three in each district). The FGDs solicited information on supply of livestock, distribution of livestock, management of livestock, training needs, sale and consumption of ASF. Each FGD had about 9-12 participants. An interview guide used for Focus Group Discussions can be found in Annex 4. Table 3 below shows number of participants for the FDGs in the study.

Table 3: FGD Participants for the Livestock Study:

District	Participants	Total

	Male	Female	
Salima	0	29	29
Dedza	0	32	32
TOTAL	**0**	**61**	**61**

c) Key Informant Interviews (KIIs)

Key Informant Interviews (KIIs) for this study included;

- Two District Agriculture Development Officers (DADO) for Salima and Dedza,
- Four District HIV and Nutrition Officers, Assistant Veterinary Officers (AVOs),
- Four District Animal Health and Livestock Development Officers (DALHDO),
- Two M&E Officers, and two Programme Managers from NGOs implementing LPoS in Dedza and Salima (CADECOM, Word Alive, EAM through KULIMA-BETTER Project),
- Two Programme Managers from IPs (CARE and UP).

The used interview guide can be found in *Annex 2 (a+b)*.

2.2.5 Data entry, cleaning and analysis

Quantitative data was uploaded onto ODK cloud at the end of each day, downloaded in CVS format, cleaned in excel and exported to IBM® SPSS® Statistics Version 25 (IBM Corp., Chicago, IL, USA) for analysis.

2.2.6 Enumeration Areas

The livestock study was done in the enumeration areas below (Table 4).

Table 4: Enumeration Areas for the Livestock Study:

District	Traditional Authority (TA)	Enumeration Areas (EAs)
Dedza	Kamenyagwaza	Chinkombero, Kapenuka,
	Chauma	Kaphuka, Linthipe, Kuchombe
	Kasumbu	Bembeke, Kanyama
Salima	Ndindi	Chipoka
	Pemba	Katelera
	Maganga	Tembwe

2.2.7. Ethical adherence

Informed consent was sought before interviews with respondents. An informed consent script was read to the respondents about the study's purpose, process and their rights. Respondents were informed that they can withdraw from the interview at any point when they do not feel like continuing taking part and that their names or even work positions will not be indicated. All data for the study has been kept confidential and is password protected.

3 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

3.1 *Sex of respondents*

The study had 98.7 % females (n=226) and 1.3 % males (n=3) for LPoS beneficiaries and for the non-beneficiaries, 98.2 % (n=54) females and 1.8 % (n=1) males as presented in table 5a and 5b below.

Table 5a: Sex of Respondents Treatment Group (N=229)

Sex	Salima	Dedza	Total
Male (%)	0.9 (n=1)	1.2 (n=2)	1.3 (n=3)
Female (%)	99.1 (n= 114)	98.2 (n=112)	98.7 (n=226)
TOTAL	**115**	**114**	**229**

Table 5b: Sex of Respondents Control Group (N=55)

Sex	Salima	Dedza	Total
Male (%)	0.0	3.2 (n=1)	1.8 (n=1)
Female (%)	100 (n= 24)	96. 8 (n=30)	98.2 (n=54)
TOTAL	**24**	**31**	**55**

The high number of female respondents is caused by the beneficiaries of the LPoS being pregnant and lactating women. In some households, due to factors such as illness and travel of the sampled beneficiaries, spouses filled in for them and provided information.

Of the female LPoS beneficiaries (35.8 % (*n=82*) were pregnant at the time of the study and 64.2 % (*n=147*) were lactating women. In the control group, 80.0 % (*n=44*) were pregnant and 20.0 % (*n=11*) lactating women at the time of the study.

3.2 *Age of respondents*

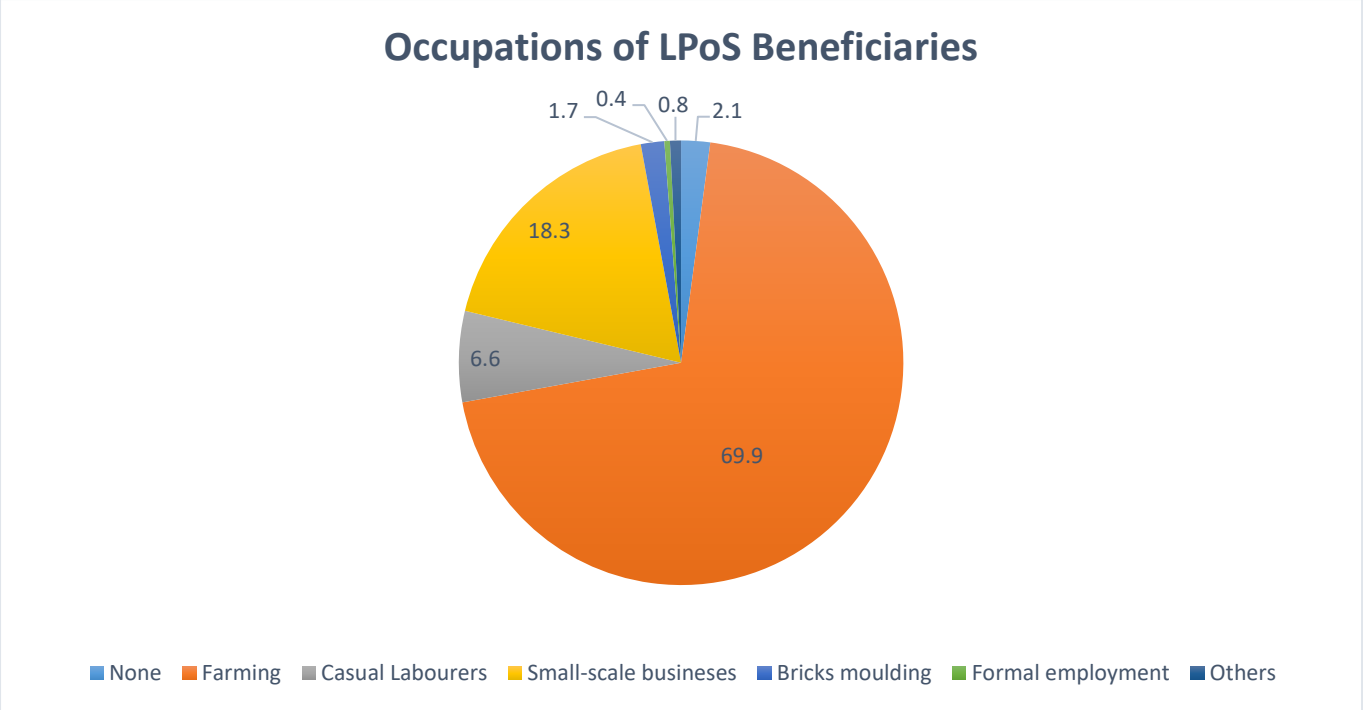
The average age for all of the respondents was 30.6 years (31.67 for Salima and 29.61 for Dedza). Again, this is due to the targeting criteria of the program, where we have more women within the mid-quartile range of the reproductive age group[4]. The age groups of the beneficiaries are also in the productive age category of labour capacity (14-49) as described by the International Labour Organization (ILO). This also presents an opportunity for the beneficiaries to take care of the livestock as they are energetic to work on aspects such as kraal construction, feeding etc.

3.3 *Occupation of Respondents*

The study revealed that 69.9 % of the LPoS beneficiaries are farmers (mostly of food crops for their consumption), 18.3 % engage in small scale businesses (such as buying and selling of horticultural crops, selling fritters etc), 6.6 % are casual labourers who work for specific periods in the year in on-farm and off-farm activities, 1.7 % mould bricks for sale, 0.8 % do other businesses such as charcoal making and tailoring, and 2.1 % have no occupation. This shows that for most beneficiaries, the LPoS is just an additional top up to their household's income. Figure 1 below shows current occupations of the beneficiaries.

Figure 2: Occupation of LPoS Beneficiaries

[4]According to the WHO, the women reproductive age category is 15-49 years



3.4 Head of Households

In the study, 17.9 % (n=41) of the LPoS beneficiaries' respondents are in female headed households and 82.1 % (n=188) are in male headed households, whilst for the non-beneficiaries, 21.8 % (n=12) are in female headed households and 78.2 % (n=43) are in male headed households as in table 6 below:

Table 6: Head of Household

Head of Household	Beneficiaries (%)	Non-beneficiaries (%)
Male Headed (%)	82.1	78.2
Female Headed (%)	17.9	21.8

4 FINDINGS

This section presents and discusses findings of the livestock study. The findings are in the following key areas:

- Supply of Livestock
- Distribution of Livestock
- Management of Livestock
- Training Needs
- Sale and Consumption of Animal-based Foods

4.1 SUPPLY OF LIVESTOCK

KEY FINDINGS

- In Salima, 3.5 % of beneficiaries received one goat, 44.3 % received two goats, and 52.2 % received ten chickens. In Dedza, 41.2 % of the households received one pig, 57.0 % received one goat, 1.8 % received two goats, and 0.9 % received chicken.
- The livestock provided by the FNSP i.e. goats and pigs in Dedza and chickens and goats in Salima are similar to what other NGOs are providing in the districts, the major difference is on the numbers provided to first line recipients as most of the NGOs follow government recommended number of stocks. Other NGOs also provide a drug box to the groups (part of the government recommendation) which helps to treat pests and diseases which is not the case with the FNSP supported LPoS.
- In all the two (2) districts, the supply of livestock (especially for goats and pigs) is not as per government recommended number and breeds for pass on schemes. Government recommends a minimum of 5 goats (4 females and 1 males) and 3 pigs (2 females and 1 male) livestock per person/beneficiary and inclusion of a male livestock (DAES 2014). Not providing the recommended numbers and without males has resulted into challenges with breeding and timely realization of offspring.
- There are few established local markets at the moment in all the TAs and most of the suppliers are identified by each of the beneficiaries within their locality (see 4.2) and in some cases, livestock is procured by IPs from Lilongwe and delivered to Salima (Such as the case with procurement of Austrolorps "Mikolongwe" chickens).
- Beneficiaries reported being asked to look for a livestock for a lower amount than the one indicated on the voucher.
- There is no documented guarantee periods and conditions. This results into beneficiaries to have burden of care in case of diseased or immature stocks being supplied. This delays the pass-on as well as make it expensive to take care of the livestock.

4.1.1 LPoS Supply Chain Dynamics

a) *Number of LPoS Beneficiaries*

The FNSP supported Livestock Pass-on Scheme is implemented in a total of 6 Traditional Authorities (TAs) and six Extension Planning Areas (EPAs) in both Dedza and Salima districts. Currently, the database of the two IPs show that scheme has a total of 899 beneficiaries in Dedza and 1196 beneficiaries in Salima District (As of September 2020).

The LPoS focuses on three types of livestock (pigs, goats, and chickens). Table 7 below shows the number of beneficiaries in each TA.

Table 7: Type of Livestock Provided

District	No of Beneficiaries	Traditional Authority (TA)	Extension Planning Area (EPA)
Salima	347	Pemba	Katelera
	366	Ndindi	Chipoka
	483	Maganga	Tembwe
Dedza	85	Kamenyagwaza	Bembeke
	206	Kasumbu	Kaphuka[5]
	606	Chauma	Kanyama
TOTAL	**2095**		

b) *Type of Livestock Provided*

Table 8 below shows the quantity (in terms of percentage) of livestock that beneficiaries receive in each district.

Table 8: Quantities of Livestock Supplied Per Beneficiary

Livestock	Quantity [n]	Percentage [%]	
		Salima	Dedza
Pigs	1	0.0	41.2
Goats	1	3.5	57.0
	2	44.3	1.8
Chickens	10	52.2	0.0

Goats were distributed in both Dedza and Salima. Pigs were distributed in Dedza alone and chickens were distributed in Salima only.

The number of goats and pigs provided to the beneficiaries (maximum of 2) is less than the government recommended number of a minimum of five goats that includes one male and 4 females and in the case of pigs the minimum for a pass-on scheme is three that includes one male and two females (DAES, 2014). Provision of relatively fewer livestock (mostly for goats and pigs) as well as not providing males for breeding makes it difficult to timely realize the off springs to pass on as well as for sale and consumption of ASF.

[5] TA Chauma does not have an EPA they use one for TA Kaphuka

When asked on the provision of fewer animals for the pass-on, UP informant mentioned that;

> "*Our LPoS is not meant to be similar to other LPoS as ours is aimed at providing an animal such as a goat that beneficiaries can use for products such as milk for their consumption.*" Respondent UP.

Table 9 below shows a comparison of government recommended standards for a pass-on versus what is provided to initial beneficiaries by the FNSP supported LPoS

Table 9: Comparison between FNSP supported LPoS and Government Minimum Standards

Livestock	Government Recommendation (n)	FNSP Provided (n)
Chickens (Salima)	10 (1 male and 9 females)	10 (1 male and 9 females)
Goats (Salima & Dedza)	5 (1 male goat of 9-12 months old and four female goats of 8-10 months old)	1-2 females
Pigs (Dedza)	3 (one male of 3-4 months old and two females of 3-4 months old)	1 female

Provision of one (1) livestock as it was the case for pigs (Dedza) and goats in Dedza and Salima Districts is risky as once it dies; the beneficiary has no fall-back plan rather than buying another one.

> "*I was given one goat, it died a week after but thereafter, I had to buy another one to be able to pass-on. It was a financial burden to my family.*" During an FGD In TA Kasumbu, Dedza District.

Learning from these incidences, UP in Dedza intends to be supplying 10 chickens to beneficiaries to mitigate the risks associated with provision of one livestock only.

Not providing males in the case of goats and pigs has resulted into breeding challenges to timely realize off-springs for pass-on as well as selling and consumption.

c) *Procurement of Livestock*

Key criteria for procurement of animals is that they are supposed to be provided with anti-biotics before they are procured and distribution. The procurement of the livestock is different between the two IPs.

In Dedza District, each initial beneficiary is asked to identify a supplier on their own and they are supposed to bring the supplier on a day when UP officials will come to pay the identified suppliers using a voucher system.

> "*We were told to identify a goat from our community and not from outside. We were given a voucher. On the buying date, the suppliers/sellers came with the goats and presented them to promoters, livestock officers, Field Facilitators and thereafter transactions were done, and the goats were handed over.*"

Buying livestock locally ensures that the procured stocks are favourable to the climatic conditions in the area. However, this approach can even make the potential beneficiary exchange it for cash as they know the supplier. It will be a good strategy for the suppliers to be identified by the promoters, volunteers and livestock officers and other extension workers since these are not end beneficiaries of the scheme.

The livestock are not given anti-biotics and other medication as they get these prior to payments being done by IPs to the supplier. However, IPs mentioned that AVOs and sometimes DAHLDOs are invited during the fairs to administer these drugs.

Some beneficiaries in the case of Kapenuka (TA Kamenyagwaza) in Dedza District felt that the voucher procurement system lacked transparency (and such things are what calls for SOPs to enable communities to be properly communicated on associated costs:

> "*We were given a voucher of MWK 30.000 (33 Euros) but we were told to look for a pig that is less than MWK 20,000 (22 Euros). Some of our friends who asked of why this is happening were taken off the beneficiary list and they never got the animal*." During an FGD at Kapenuka in TA Kamenyagwaza, Dedza District.

A respondent from UP highlighted that even if the vouchers are pre-printed, the suppliers are paid the amount as agreed by between the beneficiary and the supplier.

Beneficiaries in Salima District mentioned that the livestock procured by CARE from other areas such as the Black Austrolorps (BA) chickens from Bwemba[6] in Lilongwe and delivered to beneficiaries in Salima District presented challenges on the survival of the chickens.

> "*Within a month, all chickens died because the supplied breed (BA) was not favourable to the area*." FGD in TA Ndindi, Salima District.

A respondent from CARE Malawi highlighted that they procured the chickens from Lilongwe because they do not have local suppliers in Salima with the capacity of supplying vaccinated chickens and meet the required quantities.

Regarding the death of most chickens, the Assistant Veterinary Officer (AVO) further mentioned that the BA chickens are not an ideal fit for low economic status households as they need intensive feeding in the form of supplements. The government recommended breed for chickens for a pass-on is the local breed owing to their local availability and adaptation to the climatic conditions. This is an area, that the project needs to improve to make sure that its collaborating with key experts such as AVOs, DAHLDO before the procurement is done.

There is no documented guarantee periods and conditions. There is only one incident in Salima whereby the supplier had to replace some livestock (goats) in Salima. Lack of guarantee periods, results into beneficiaries to have burden of care in case of diseased or immature stocks being supplied. This delays the pass-on as well as make it expensive to take care of the livestock as beneficiaries must look for more supplementary feed as well as administration of drugs**.**

[6] Owned by the Ministry of Agriculture as a hatchery place for poultry (mostly chickens) near Likuni

Table 10 below outlines procurement processes in both districts.

Table 10: Summary of Procurement Procedures FNSP supported LPoS

District	Procurement Process	Pros	Cons
Dedza (UP)	Each initial beneficiary to receive goats/pigs is asked to identify a supplier on their own and they are supposed to bring the supplier on a day when UP officials will come to pay the identified suppliers using a voucher system.	Facilitate the procurement of livestock that is favourable to the climatic conditions of the area.	Beneficiaries can choose immature or diseased livestock. There are no documented guaranteed periods on the healthy status of the livestock.
Salima (CARE)	In Salima, CARE procured livestock from the Black Austrolorps (BA) chickens from Bwemba[7] in Lilongwe and delivered to beneficiaries in Salima District. The goats were procured from local suppliers within Salima District and delivered to beneficiaries.	Does not place the burden on the part of beneficiaries to be on the look-out for suppliers	The procured livestock many are not be conducive to the climatic conditions of the area. Extension workers further that chances of importing diseases from other areas are high

4.2 DISTRIBUTION OF LIVESTOCK

KEY FINDINGS

- Choice of livestock is according to 41.9 % of the respondents done by Project Staff in 14.8 % by extension workers, 14.4 % beneficiaries helping to choose for their fellow beneficiaries, 12.7 % by the beneficiary, 3.9 % don't know who chose for them.
- 75.0 % of the beneficiaries received their livestock through community distribution mechanisms within their communities, 22.4 % through livestock fair, 2.7.8 % through the pass-on scheme and.
- In Dedza (N=114), the top three most preferred livestock are pigs (n=53), goats (n=44), chickens (n=12). In Salima (N=115), the top three most preferred livestock are goats (n=97), chickens (7), and dairy cows (n=2).
- Incidences of 'imposing' the livestock on the beneficiaries were reported e.g. in Salima some beneficiaries were given chickens when they preferred and were communicated to that they will receive goats.
- In Dedza only 24.6 % of the beneficiaries have managed to pass-on their livestock and in Salima only 20.0 % have managed to pass on their livestock. This is relatively low as similar LPoS and of the same type of livestock by other NGOs and agencies do have an average pass-on rate (PoR) of more than 45 % between 6-12 months from inception of the scheme.
- Of initial beneficiaries that managed to pass on, 86.3% of these were those that received goats, 7.8 % of these were those that received pigs, and 3.9% of these were those that received chickens.
- Reasons for most of the beneficiaries not to pass-on include animals not ready (67.3 %), recipients' s kraal not ready (2.3%), death of the livestock (23.3%).

[7] i

- All interviewed NGOs with a high rate of pass-on-rate follow government recommended standards of LPoS -underscoring the relevance of government set standards on livestock pass on schemes.

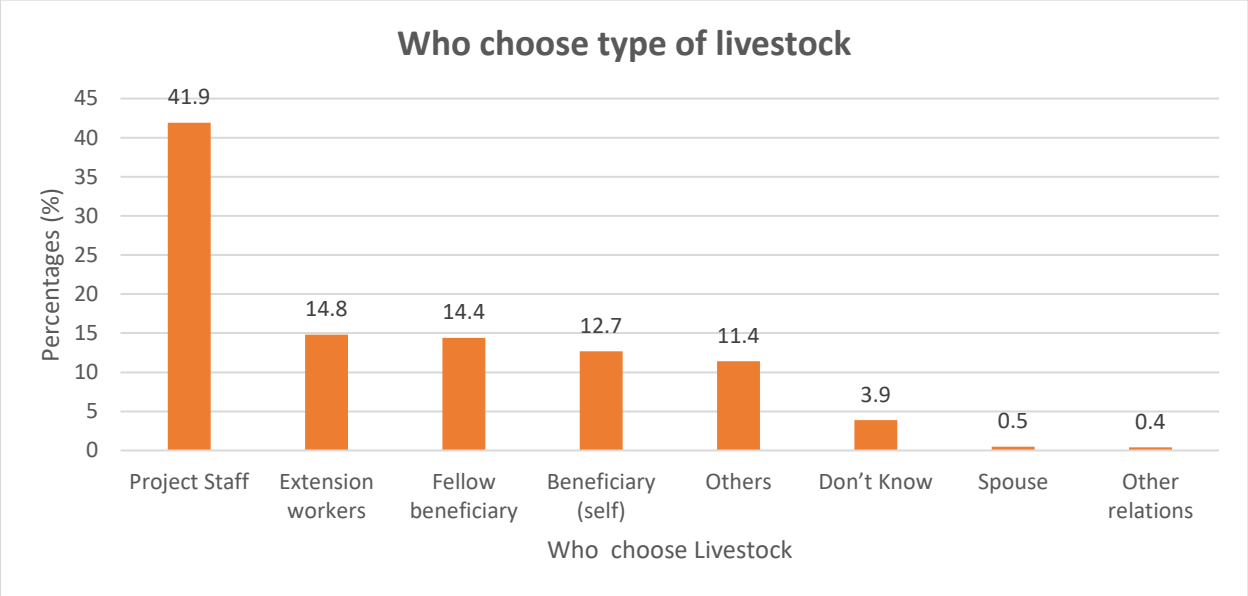
- The expected time by which beneficiaries are expected to pass-on the offspring to other beneficiaries in the FNSP supported LPoS is not fully communicated to the beneficiaries and most of them are not clear on when to pass on though they were in some instances able to mention when they are supposed to. Having an SOP helps to address such gaps. 76.3 % of the beneficiaries know that they need to replace in the event of death, theft and other factors. 23.7 % do not know. This can be attributed to absence of clear by-laws.

4.2.1 Choice and Preference of Livestock

a) Choice of Livestock

For the LPoS beneficiaries the choice of the livestock was in 41.9 % of the respondents done by Project Staff (Field Facilitators, Promoters, and Volunteers), in 14.8 % by extension workers, 14.4 % fellow beneficiaries, 12.7 % by the beneficiary, 3.9 % don't know who chose for them. Table 2 below shows who chooses the livestock.

Figure 2: Who Choose Livestock for Beneficiaries



In some situations where the beneficiary is not accorded the opportunity to choose the livestock, it has presented some challenges.

> "*For me it was hard to ensure I got a healthy stock because it was chosen for us. We were just given the chickens. The chickens looked weak, sickly and too young.*" During an FGD at Mtika, TA Ndindi in Salima.

Not providing livestock as per desired choice of beneficiaries has short- and long-term consequences on the level of ownership and subsequent care of the livestock.

In Salima District, it was reported by promoters during interviews that the goat breed that was procured and distributed to beneficiaries has breeding challenges and once beneficiaries got these, they exchanged them with butchers and got their preferred breeds from them that according to them have more breeding capabilities.

b) *Preference of Livestock*

In Dedza (N=114), the top three most preferred livestock are pigs (n=53), goats (n=44), chickens (n=12). In Salima (N=115), the top three most preferred livestock are goats (n=97), chickens (n=7), and cattle (n=6). The preferences are outlined in table 11 below.

Table 11: Preference of Livestock

Livestock	Dedza (n)	Salima (n)	Total (n)
Goats	44	97	141
Pigs	53	1	54
Chickens	12	7	19
Cattle	1	6	7
Dairy Cows	2	2	4
Rabbits/Guinea Pigs	0	1	1
TOTAL	**114**	**115**	**229**

During FGs, beneficiaries mentioned of situations whereby livestock was imposed on them. For instance, in Salima district many beneficiaries preferred to receive goats, but they were eventually given chickens. This can also be one of the reasons why most of the chickens died since respondents might not care for them as much as they would for the livestock of their choice.

> "*We wanted goats, but we were surprised that we were given chickens that died eventually*." During an FGD at Chimwavi, TA Maganga, Salima District.

Further, there are situations when beneficiaries have been entirely satisfied with their preference.

> "*We expected pigs and that's what we got, and we were satisfied with the health status of the livestock since we choose ourselves and the animal officer from Kamenyagwaza checked them before handing them to us.*" During an FGD at Kapenuka (TA Kamenyagwaza), Dedza District.

One key aspect is communication to beneficiaries of what they will get, when they will get it and in the event of any changes, they need to be fully informed. In the case of Salima, where beneficiaries expected goats and they were supplied with chickens instead, there ought to be communication to the beneficiaries to prepare them well and prevent dissatisfaction on the part of beneficiaries.

In instances where communication has been up to date, beneficiaries have still expressed satisfaction even though probably their preference was different.

> "*We (beneficiaries) were given goats according to our expectations and choice. We were satisfied with the health status of the goats despite a few individuals wanted pigs."* FGD in Kamenyagwaza, Dedza District.

On the part of the religious beliefs, in Muslim dominated areas of Salima and in some cases Dedza, pigs are not kept and even sold.

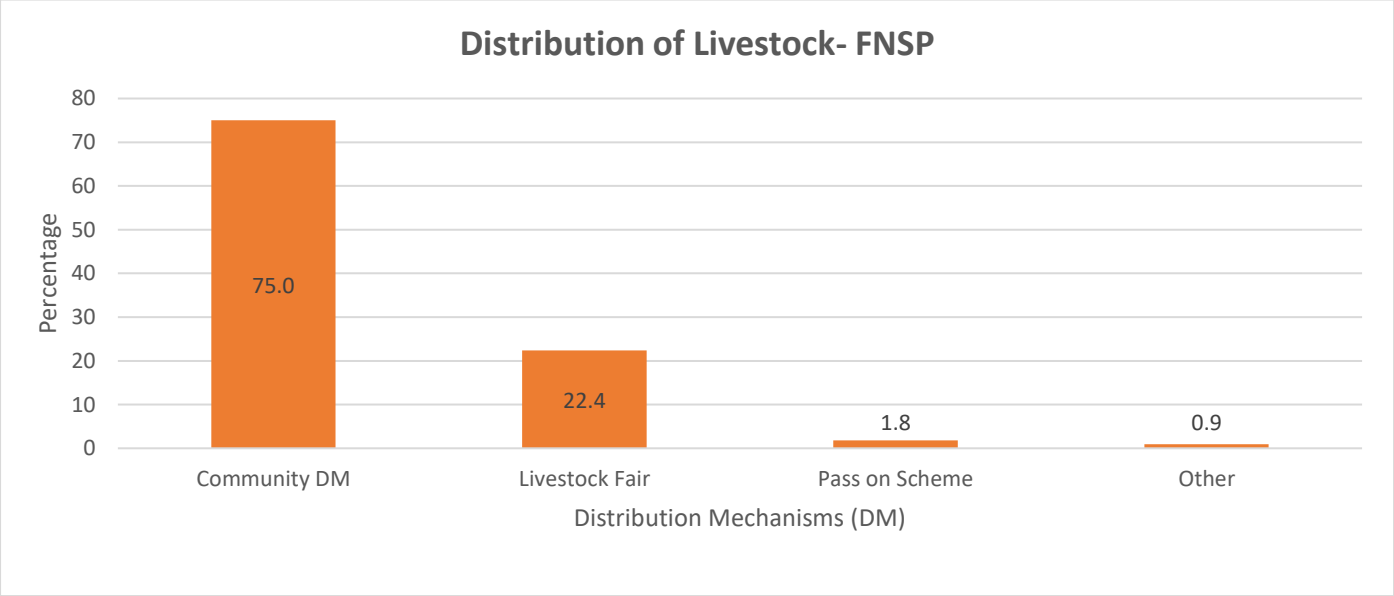
"*It was good that I received a goat, if I got a pig, I could have taken to keep it in another village as this is a Muslim dominated area and pigs are not allowed.* "- During an FGD in Dedza District.

Provision of livestock to beneficiaries taking into account barriers such as religion is one of the best practices in the FNSP-LPoS.

4.2.2 Livestock Distribution Mechanisms

75.0 % of the beneficiaries received their livestock through community distribution mechanisms within their communities, 22.4 % received livestock through a livestock fair, 1.8 % through the pass-on scheme and 0.9 % through other means (such as fellow beneficiaries receiving on their behalf).

Figure 3: Livestock Distribution Mechanisms



The livestock distribution mechanism differs in the two districts. In Salima, CARE procures the livestock and distributes in the communities. In Dedza most beneficiaries receive get the livestock directly from the supplier within the communities.

"*The care group promoter made household visits informing them [the beneficiaries] of the livestock they will receive and when to expect them.*" During an FGD at Mtika (TA Ndindi) in Salima District.

In figure 3 above, those that they have received their livestock through the pass-on scheme are low (1.8 %). This further highlights the challenges of the scheme (See more of this in 4.2.3)

It was also reported by IPs that some beneficiaries in Dedza sells the livestock they receive after passing on and procure other ones.

"*Beneficiaries can receive a goat and they will sell it to buy a pig, which then they will pass-on.*" Respondent from UP.

4.2.3 Ability to Pass-on

In Dedza, only 24.6 % of the beneficiaries have managed to pass-on their livestock and in Salima, only 20.0 % have managed to pass on their livestock. This is relatively low as similar LPoS by other NGOs and agencies do have an average pass-on rate (PoR) of more than 45 % between 6-12 months from inception of the scheme. During the study, the team interviewed other NGOs that have implemented livestock pass-on schemes in both Dedza (CADECOM) and Salima (EAM) to compare the pass-on rates. A key aspect with these NGOs is that they distribute livestock as per government recommended stocks, provide a drug box, and include a household capacity assessment before they give them the livestock to ensure that they are giving to those that they will properly take care of them.

Table 12: Comparison of Pass on Rates (PoR) with other NGOs

Livestock	Duration (months)	FNSP -PoR (%)	CADECOM-PoR (%)	EAM- PoR (%)
Goats (Local breed)	6-12 months	24.6	56.3	48.3

The study revealed that of those that managed to pass on livestock to other beneficiaries, 86.3 % of these were those that received goats, 98 % of these received pigs, and 3.9 % of these received chickens. Most of those that have passed on have done so to second line (secondary) beneficiaries.

Reasons for most of the beneficiaries not to pass-on include animals not ready (67.3 %), death of the livestock (23.3 %), 7.4 % have sold the livestock or waiting to be told when to pass on the livestock, in 2.3 % of respondents, the recipients kraal not ready- to be able to receive livestock.

Further, the pass-on conditions are also challenging to some of the beneficiaries.

> "*The fact that we will have to give away 3 piglets is hard enough for us - One to the owner of the male used for breeding, two to other beneficiaries. This arrangement does not sit well with us*. "During an FGD – TA Kamenyagwaza in Dedza District.

The expected time by which beneficiaries are expected to pass on the offspring to other beneficiaries in the FNSP supported LPoS has not been properly communicated to the beneficiaries. Beneficiaries however were in some instances able to cite when they will pass-on their animal though in some cases it was not realistic and not as per government minimum standards. For the FNSP supported LPoS, beneficiaries of chickens are expected to pass on when they are six weeks (1.2 months) as compared to the government required 4 months. Those that receive goats are in the FNSP supported LPoS expected to pass on when the goats are two months old as compared to government recommended 5-7 months. For pigs, the government recommended pass-on period is when the offspring has attained 3-4 months as opposed to the FNSP requirement of 2 months.

Amongst LPoS beneficiaries, 76.3 % of the beneficiaries know that they need to replace in the event of death, theft and other factors while 23.7 % do not know this. This is because in some cases, they are not fully aware of the by-laws.

Beneficiaries of goats passed on most (Photo courtesy of Livestock for Resilience project)

4.4 MANAGEMENT OF LIVESTOCK

KEY FINDINGS

- For **chickens**, during the day, 90.5 % of the chickens roam about in the surrounding, 5.5 % are kept in the kraal, and 5.5 % are kept in the family house. At night, 49.6 of the chickens are kept in the family house, 37.8 % in the kraals, 2.4 % roam about, and 10.2 % are kept in kitchens.
- For **goats,** during the day, 89.8 % are kept in the family house (for fear of theft and sometimes encroaching in other people's gardens), 2.5 % roam about, 3.4 % are tied to a rope and 4.5 % are kept in a kraal. At night, 48 % are kept in the kraal, 38.9 % are kept in the family house, and 12.9 % are kept in the kitchen.
- For **pigs,** during the day, 98.8 % are kept in the kraal, 1.2 % in the family house with a similar trend at night.
- There are no standard designs of the kraals in the two (2) districts. The scheme intended to promote IHF (using manure from livestock for backyard gardens) but beneficiaries reported that extension support on this has been limited.
- In Salima District, the responsibility for kraal construction is in 50. 9 % of the beneficiaries by husbands/spouses, 12.3 % by the beneficiaries themselves, 17.5 % by other family members, 8.8 % by children, 10.5 % by others such as hired labourers, church members etc. In Dedza District, the responsibility for kraal construction is in 60.8 % of the beneficiaries done by the husbands/spouses, 6.3 % by the beneficiaries themselves, 7.6 % by children, 21.5 % by other family members, 3.8 % by others (hired labourers etc)
- The responsibility to feed livestock is on beneficiaries (43.5 %), children (20%), husbands (15.8 %), other family members (11.7%), and others in the form of hired labourers etc (9.2 %).

- The BA chickens provided to beneficiaries in Salima requires supplementary feeding and this is only done by 40.6 % of beneficiaries- A feat that might also have contributed to the low SR.
- Major challenges met during feeding include, scarcity of feeding materials (47.5 %), restriction of movement for fear of livestock entering neighbours' gardens (13.3 %), lack of manpower (9.2%), and lack of skill in preparing feed (1.7 %).
- When asked of the most frequent diseases for livestock. Respondents mentioned that the most frequent disease for chickens in both districts is New Castle Disease (Avian orthoavulavirus 1) locally known as "*Chidelu"* mentioned by 100.0 % of respondents in Salima and 86.7 % of respondents in Dedza. For goats, Respondents mentioned that the most frequent diseases in Dedza and Salima for goats are *Gastrointestinal Parasitism* (Diarrhoea) and *Contagious Caprine Pleuro- Pneumonia (CCPP*). For pigs, 86.7 % of respondents mentioned that the most frequent diseases are "coughing" and the African Swine Fever (ASF 1) locally known as "*Chigodola"*
- In Dedza, 20.0 % of the beneficiaries can administer vaccine to livestock and 25.0 % can give medication to a livestock. In Salima, 24.3 % of the beneficiaries can administer vaccine to livestock and 32.2 % can give medication to a livestock.

4.4.1 Housing

a) *Beneficiaries with Kraals*

While majority of those owning pigs had kraals (98.0% of beneficiaries and 100% of none beneficiaries), less than half of people owning goats and chickens had kraals (49.4% beneficiaries and 36.8% of non-beneficiaries owning goats compared to 37.8% of beneficiaries and 37.5 of non-beneficiaries owning chickens.). Chi square correlations further revealed that there was no difference in the construction/ownership of kraals among beneficiaries and non-beneficiaries ($p=0.842$ for pigs, $p=0.424$ for goats and $p=0.181$ for chickens. LPoS beneficiaries have relatively high access to extension support through promoters, lead farmers and AVOs that is the main reason they can have a kraal as compared to non-beneficiaries.

Despite constructing kraals, some of beneficiaries keep the livestock in their family/dwelling house due to security fears.

> "*Currently the goats are being kept in the house due to lack of security"*: - During an FGD at Chimwavi, TA Maganga in Salima District.

During the day, 90.5 % of respondents indicated that the chickens roam about in the surrounding, 5.5 % are kept in the kraal, and 4.0 % are kept in the family house. At night, 49.6% of the chickens are kept in the family house, 37.8 % in the kraals, and 10.2 % are kept in kitchens, 2.4 % roam about.

For goats, during the day, 89.8 % of the respondents mentioned that they are kept in the family house due to theft fears and avoiding encroachment into other people's gardens, 4.5 % are kept in a kraal, 3.4 % are tied to a rope, and 2.3 % roam about, and. At night, 48.0 % are kept in the kraal, 38.1 % are kept in the family house, and 13.9 % are kept in the kitchen- outside the house.

For pigs, during the day as well as at night, 98.8 % are kept in the kraal, 1.2 % in the family house.

The free-range raising of goats and chickens make them susceptible to different pests and diseases as they do encounter other chickens and goats that are not properly vaccinated.

The designs of the kraals are different within and across the districts. Much as the beneficiaries are provided with similar trainings, they construct kraals based on the materials they have and available manpower.

However, during FGDs it was clear that most beneficiaries have resorted into construction that ensures easy collection of manure and security.

> "*For chickens down (surface) kraals are preferred for easy collection of manure and for goats they are built up to prevent theft.*" During an FGD Kasumbu, Dedza District.

Cases of livestock theft were raised during FGDs. It was observed that livestock that were provided through the LPoS are much more prone to be stolen as compared to those of other community members. During FGDs, participants hinted that community members regard the livestock provided through the pass-on as free and people think one may not complain much if their livestock received through the LPoS is stolen.

b) Responsibility of Kraal construction

In both Salima and Dedza districts, most beneficiaries (60.8 % in Salima and 50.9 % in Dedza) get the support of their husbands to have their kraal constructed (See Table 11 below). This too is a problem because the husbands/spouses do not participate in most of the trainings and they construct according to the way they want it done and in some ways the designs they come up with does not facilitate the collection of manure.

Table 13: Responsibility for Kraal Construction

Who is responsible for kraal construction?	Dedza (%)	Salima (%)
Self	6.3	12.3
Spouses	60.8	50.9
Other family members	21.5	17.5
Children	7.6	8.8
Others (hired labourers, fellow beneficiaries, friends	3.8	10.5
Total	100	100

Type of kraals constructed by FNSP beneficiary -Kamenyagwaza, Dedza District

4.4.2 Feeding

a) *Feed for livestock*

40.7 % of chicken beneficiaries feed them through free range with little supplementation, 33.3 % feed them maize bran, 24.1 % keep them on free range with no supplementation. All those that received the pigs feed them maize bran. Those that received goats feed them through free range with no supplementation, and 43.6 % feed them fodder, and 9.0 % are fed through free range with little supplementation.

Table 14: Feeding of Livestock

Feed	Chickens (%)	Goats (%)	Pigs (%)
Maize Bran	33.3	0.0	100.0
Free Range with little supplementation	40.7	9.0	0.0
Free Range with no supplementation/Browsing	24.1	47.4	0.0
Fodder	0.0	43.6	0.0
Other	1.9	0.0	0.0

Table 12 above shows that 40.7 % of the beneficiaries that receive chickens let them roam around with little supplementation. However, the type of chickens that they were provided with (Black Austrolorps) require supplementation of vitamins and calcium for their growth, egg laying etc[8]. This is probably, one of the reasons that resulted into a low survival rate of BA chickens given to beneficiaries in Salima. Most recipients fed the BA locally available foods only.

On the other hand, maize bran, a common feed to pigs (given to beneficiaries in Kamenyagwaza) is commonly found after maize harvest. Beneficiaries find it easy to process, store some and share amongst themselves.

> "*It's easy to monitor what the pig is eating than when you let it roam around*." During an FGD at Kapenuka, TA Kamenyagwaza in Dedza District.

For goats, 47.4 % of the beneficiaries will let them roam around. 43.6 % will feed the goats fodder (in the form of grass) and 9.9 % will provide supplement to goats in the form of maize bran and salt.

> "*We are able to use the maize bran and salt to feed goats for a long time since its merely used as a supplement.*" FGD Kuchombe, Chauma in Dedza District.

b) Frequency of feeding

Pigs are the most frequently fed livestock with 71.2 % of recipients feeding them three times a day. This entails that there is more manpower needed on average of four -three hours a day to the feeding of pigs as compared to other livestock. Table 13 below provides frequency of feeding of different livestock among LPoS beneficiaries.

Table 15: Frequency of Livestock Feeding

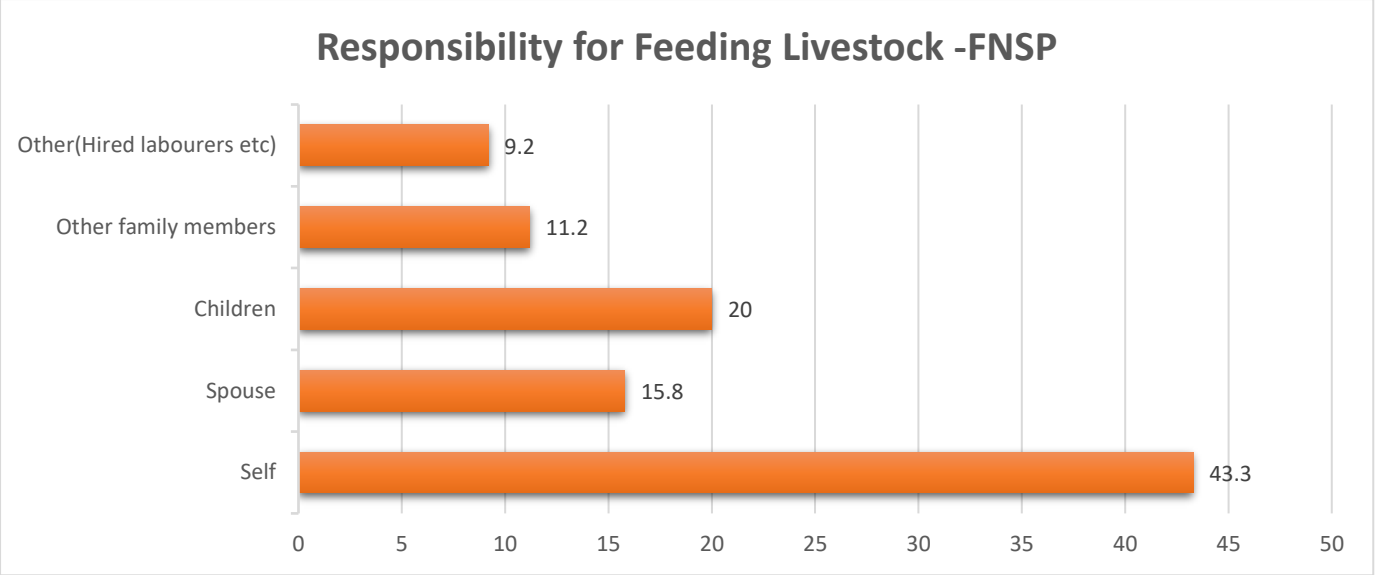
Frequency	Chickens (%)	Goats (%)	Pigs (%)
Once a day	15.4	11.5	1.9
Twice a Day	13.5	15.4	25.0
Three times a Day	7.7	7.7	71.2
Free range	63.5	65.4	1.9

c) Responsibility for feeding

The responsibility to feed livestock is on beneficiaries (43.5 %), children (20.0 %), husbands (15.8 %), other family members (11.7 %), and others in the form of hired labourers, support from church members etc. (9.2 %). Figure 4 below shows responsibilities for feeding livestock.

Figure 4: Responsibility for Feeding

[8] Mphatso Chibwana (2012): Comparative Analysis of On-Farm Formulated Feed and Commercial Feed on Egg Production in Black Austrolorps



It was also noted during FGDs that some beneficiaries use VSLA funds in procuring feeds for the animals.

> *"We are able to feed the livestock; we use funds obtained from the VSLA fund to buy feed for the livestock."* :-During an FGD in Dedza District.

4.4.3 Breeding

For LPoS Beneficiaries that received chickens, they are provided with hens and one cock for breeding, whilst for those that received goats and pigs, they were provided with a doe (female goat) and a gilt (female pig without piglets). The recipients of goats and pigs are supposed to identify a buck (male goat) and a boar (male pig) for breeding.

For free-range livestock such as goats, most beneficiaries find it easy.

> "*It's easy for goats because as they roam around, they easily meet males for breeding."*: - FGD -TA Maganga in Salima District.

Letting the goats roam around and encounter a male goat (buck) is regarded easy and affordable than when they must hire a male for breeding since they will be required to give back one offspring.

The situation is different with pigs as they do not roam around, the recipients need to hire a male for breeding. Beneficiaries will provide one offspring to the ones that borrow them a male for breeding.

4.4.4 Pest and Disease Control

a) Common Livestock Pests and Diseases

When asked of the most frequent diseases for livestock. Respondents mentioned that the most frequent disease for chickens in both districts is Newcastle disease (Avian orthoavulavirus 1) locally known as "*Chidelu"* mentioned by 100.0 % of respondents in Salima and 86.7 % of respondents in Dedza. For goats, Respondents mentioned that the most frequent diseases in Dedza and Salima for

goats are *Gastrointestinal Parasitism* (Diarrhoea) and *Contagious Caprine Pleuro- Pneumonia (CCPP*). For pigs, 86.7 % of respondents mentioned that the most frequent diseases are "coughing" and the African Swine Fever (ASF 1) locally known as "*Chigodola*

Table 15: Pests and Diseases for Livestock

Diseases	Chickens (%)		Pigs (%)		Goats (%)	
	Dedza	Salima	Dedza	Salima	Dedza	Salima
Newcastle	86.7	100.0	13.6	0.0	0.0	0.0
Coccidiosis	13.3	0.0	0.0	0.0	0.0	0.0
African Swine Fever	0.0	0.0	86.7	0	20.0	32.0
CCPP "*cough*"	0.0	0.0	0.0	0.0	30.0	34.0
Gastrointestinal Parasitism "*Diarrhoea*"	0.0	0.0	0.0	0.0	50.0	34.0

b) Control and Treatment of Pests and Diseases

Table 15 below presents what beneficiaries did when their animals are infected with diseases or attacked by pests.

Table 15: Pest and Diseases Management

Disease Management	Dedza (%)	Salima (%)
Took animal to Vet	18.8	7.9
Gave animal vaccine	20.0	24.3
Gave animal medication	25.0	32.2
Killed animal and ate meat	0.0	1.3
Killed animal and sold meat	3.1	2.0
Did nothing	33.1	32.2

There is a relatively high percentage of beneficiaries that do nothing to a livestock when infected by pests and diseases (32.7 %), and 18.8 % in Dedza and 7.9 % in Salima will take the livestock to a veterinary officer. The ratio of veterinary officers to livestock keepers is relatively higher in Dedza (1: 3456) as compared to in Salima (1: 6982).

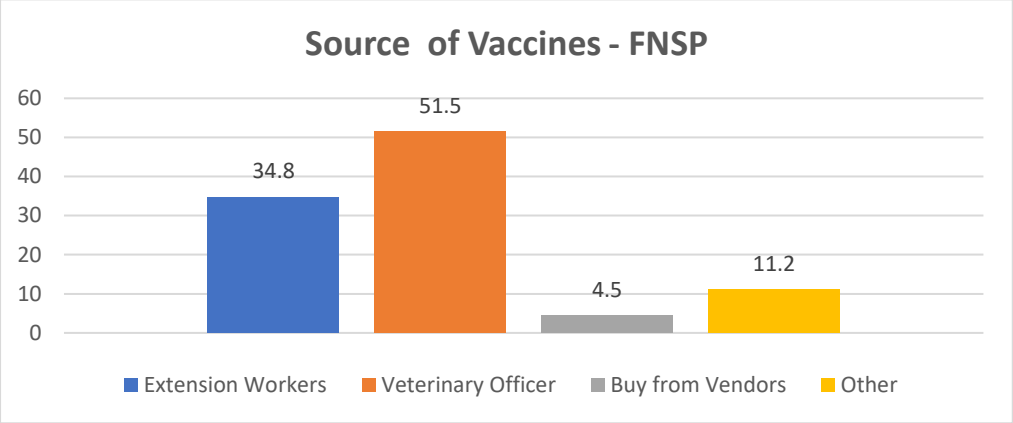
In Dedza, 20.0 % of the beneficiaries reported that they can administer vaccine to livestock and 25.0 % can give medication to a livestock. In Salima, 24.3 % of the beneficiaries can administer vaccine to livestock and 32.2 % can give medication to a livestock

Source of Vaccines

In both districts, a total of 133 people (46.8%) have access to vaccines. Of those, 60 (51.5 %) beneficiaries source vaccines from veterinary officers, 56 (34.8 %) source them from other agricultural

extension workers, 4 (4.5 %) buy from vendors and 9 (11.2 %) obtain them from other sources such as friends, family members etc. Figure 5 below presents source of vaccines for beneficiaries.

Figure 5: Source of Vaccines



In as much as beneficiaries mentioned that they source vaccines from extension workers there are some indications that they must pay to the AVO on a subsided price.

> "*We pay MWK 500 (Euro 0.55) to get vaccines from a vet officer. This is cheaper though as compared to buying from a vendor where it cost more than MW3000* (*Euro 3.30*). FGD in Salima District

In other best cases, beneficiaries have managed to put their funds together to procure medications in bulk and use them when need arises with the support of promoters and volunteers.

In recent years, government has allocated a lot of resources to the Farm Input Subsidy Programme (FISP) at the expense of other sub-sectors such as livestock production. In the past, vaccines for livestock were readily available and given to livestock owners for free but now that is not the case due to limited financial resources to procure them.

4.3 TRAINING NEEDS

KEY FINDINGS

- 59.4 % of beneficiaries have received trainings on livestock management and 40.1 % indicated not to have received any training. The percentage of those that received training in the LPoS is higher than those for the non-beneficiaries (control) group which is only at 6.9 %.
- 86 % of the beneficiaries got the training before receiving the livestock, 9.6 % after receiving the training, and 4.4 % received before and after receiving the livestock.
- Limited training after receiving the livestock and lack of graphical references to use make it difficult to apply knowledge gained in the trainings.

- 63. 7 % of the beneficiaries got the training from IPs (CARE and UP), 25 % got the training from government extension workers whilst 11.3 % got the training from other NGO extension workers, fellow beneficiaries, family members etc.
- There is no standard training curriculum for training of beneficiaries an aspect that has created critical gaps in knowledge and ensure equal knowledge across the districts.
- Some of critical components of livestock husbandry practices (except in some cases on kraal construction) are taught in theory making it hard for most of the beneficiaries to replicate what they learn.

4.3.1 Training of Beneficiaries

a) Number of those trained

Table 16 below shows that 59.9 % of beneficiaries have received trainings and 40.1 % indicated not to have received any training. In Dedza there are relatively more beneficiaries that received trainings as compared to Salima.

Table 16: Percentage of Those Received Trainings

Did You Receive Training?	Dedza (n)	Salima(n)	TOTAL n (%)	
No	65	28	93	**(40.1%)**
Yes	49	87	136	**(59.9%)**
TOTAL	**114**	**115**	**229**	

Beneficiaries reported during FGDs that the topics for the training included animal health, animal breeding, housing, feeds and feeding. Those in the control group they were trained mostly in feeds and feeding and housing.

An area that most beneficiaries have not been trained most is on usage of animal products as well as knowing symptoms of certain diseases. Perhaps that can be one of the reasons why some beneficiaries (32.7 %) do not know what to do when an animal is sick. See more of this on 4.4.4. Another training component that is not included is how beneficiaries can develop constitutions/by-laws for the pass-on scheme.

Further, most beneficiaries are not provided with any other training after receiving livestock.

> "*We received training on kraal construction before we received the goats but currently no other training has been provided.*" During an FGD at Kuchombe – TA Chauma in Dedza District.

Further, there are no clearly documented mechanisms on how second line and other subsequent beneficiaries will be trained in the scheme as compared to Initial Beneficiaries (IBs) who are trained based on training content developed by DAHLD officials.

b) Time of Training

86.0 % of the beneficiaries got the training before receiving the livestock, 9.6 % after receiving the training, and 4.4 % received before and after receiving the livestock. Table 17 below presents the time when LPOs beneficiaries were trained (N=136).

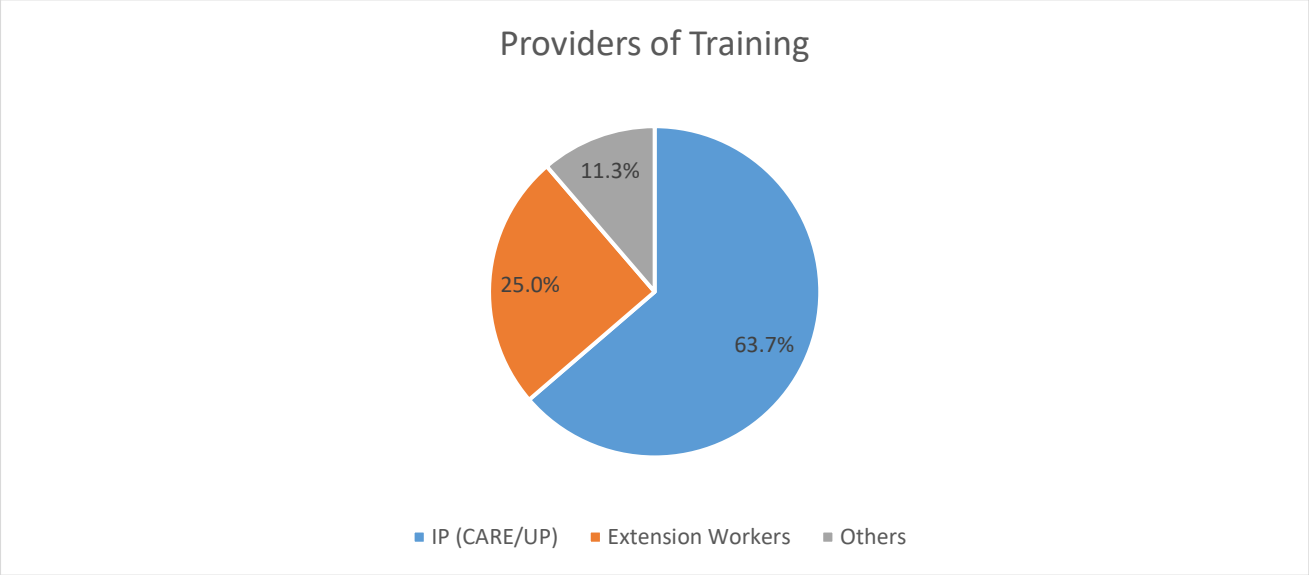
Table 17: Time When Training Was Provided

When Were you Trained?	Dedza	Salima	TOTAL	
Before Receiving Livestock	39	78	117	(86.0 %)
After Receiving Livestock	8	5	13	(9.6 %)
Before and after receiving Livestock	2	4	6	(4.4 %)
TOTAL	**49**	**87**	**136**	

c) *Providers of the training*

63.7 % of the beneficiaries got the training from IPs (CARE and UP), 25.0 % got the training from government extension workers whilst 11.3 % got the training from other NGO extension workers, fellow beneficiaries, family members etc.

Figure 4 below shows providers of the trainings to LPoS beneficiaries (treatment)



Beneficiaries and key informants mentioned that key knowledge gaps for most beneficiaries are in aspects such as making feed rations, developing constitutions/community by-laws.

Despite the trainings (according to AVOs) beneficiaries still face challenges on how to make feed rations for chickens. The current training delivery does not include sessions on demonstrations for ration production etc.

> "*Implementing partners do not bring such ingredients for making rations during trainings to allow for demonstrations of these.*" Interview with AVO, Salima

4.3.2 Reasons for current knowledge gaps

As indicated before, the percentage of beneficiaries that are trained before and after receiving livestock is low (4.4 %). Some of critical components of livestock husbandry practices (except in some cases on kraal construction) are taught in theory. It will be a good idea to have these taught in practical sessions to allow acquiring of essential practical know-how. Further, the trainings target beneficiaries only yet most of the livestock husbandry practices such as kraal construction need support of husbands and other family members. This makes it difficult for implementation of what is delivered in trainings.

The promoters, volunteers and beneficiaries alike do not have easy to read guides (likely in the form of visual/graphical ones) on essential management practices such as knowing symptoms of pest and diseases and administration of vaccines and drugs if possible.

Support of beneficiaries from the IPs and extension workers has been another issue for example during an FGD at Chimwavi in Salima District beneficiaries mentioned that since they received chickens in 2018, no support visit has been done. All the chickens died.

4.5 SALE AND CONSUMPTION OF ANIMAL SOURCED FOODS

KEY FINDINGS

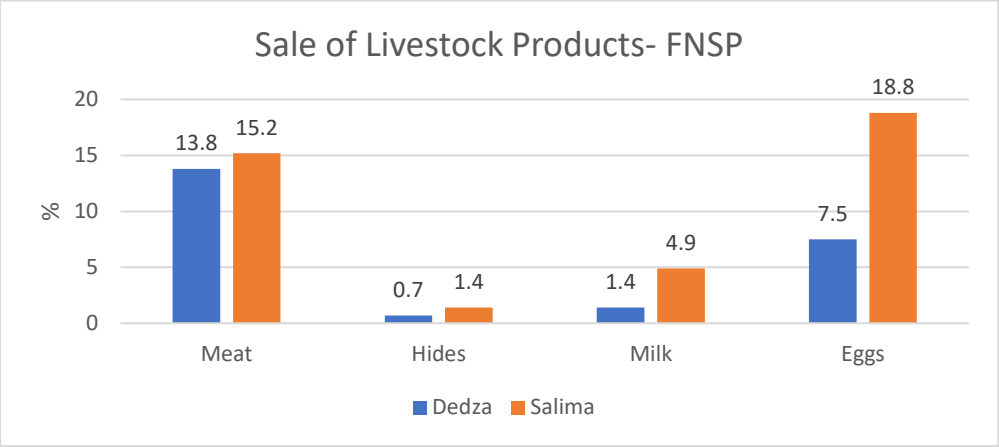
- Sale of livestock products has been low in both Salima and Dedza. 14.5 % of LPoS beneficiaries have been able to sell meat, 13.1 % sell eggs, 3.2 % sell milk, 1.1 % sell hides.
- Backyard gardens are available in 39.6 % of LPoS beneficiaries in Dedza District, and in Salima 60.4 % do have these. Challenges to collecting manure for backyard gardens are due to the free-range raising of livestock, types of kraals constructed and number of stocks available.
- Most frequently consumed ASF is fish (not provided by the LPoS) i.e. 40.1% consuming 2-3times a week and 15% consuming fish daily followed by eggs 40.8 percent consuming fried eggs 1-2 times a week and 15% consuming fried eggs 3-4 times a week.
- LPoS beneficiaries sell eggs to in turn buy small fish (usipa). This is due to affordability to meet household consumption demands.
- Given that the most frequently consumed ASF is not livestock provided by the FNSP supported LPoS, it raises questions on the relevance of the scheme for improving nutrition through increased frequency of consuming ASF.
- Intrahousehold gender and power dynamics make beneficiaries regard the livestock as owned by their husbands and entails that husbands are expected to make critical decisions on care and usage of livestock.

4.6.1 Sale and Use of Livestock

a) Sale of Livestock

For now, most households have not sold their livestock as many are yet to pass-on first and mostly those that passed on sold the animals. In Salima, those that receive the chickens are selling the eggs to buy other things for use at their household level. Figure 8 below shows the sale of ASF by beneficiaries across the districts.

Figure 8: Sale of Livestock Products



> "*We are now able to sell eggs and purchase what we want.*" During an FDG at Mtika- TA Ndindi in Salima District.

Of those that have sold the livestock, 74.3 % have done so in times of financial crisis. This signifies the fact that livestock can be a cushion to household financial shocks.

During FGDs, beneficiaries mentioned that typical usage of the money realized from the sale of livestock products is mostly to buy farm inputs, pay school development fund for children, buy necessities for cooking demonstrations, purchase of food and other household amenities.

b) Manure harvesting

In Dedza, 39.6 % of LPoS respondents do have backyard gardens, and in Salima 60.4 % do have these. The FNSP promotes Integrated Homestead Farming (IHF) approach and beneficiaries are required to have backyard gardens and meant to utilize the manure harvested from the livestock.

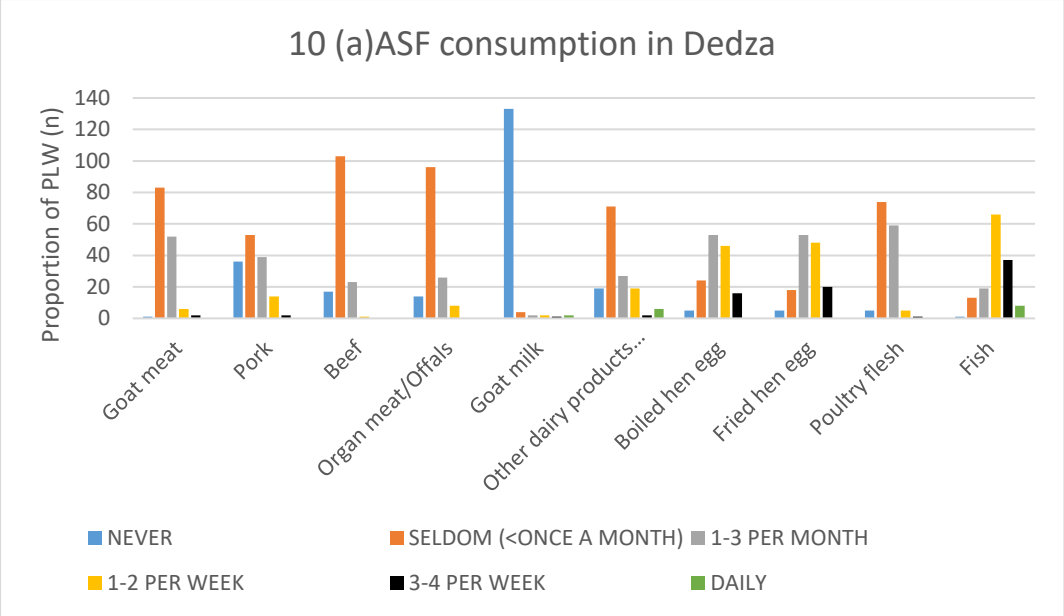
The scheme has involved DAHLDO's and other extension workers to train beneficiaries on kraal construction that is designed to collect/harvest manure.

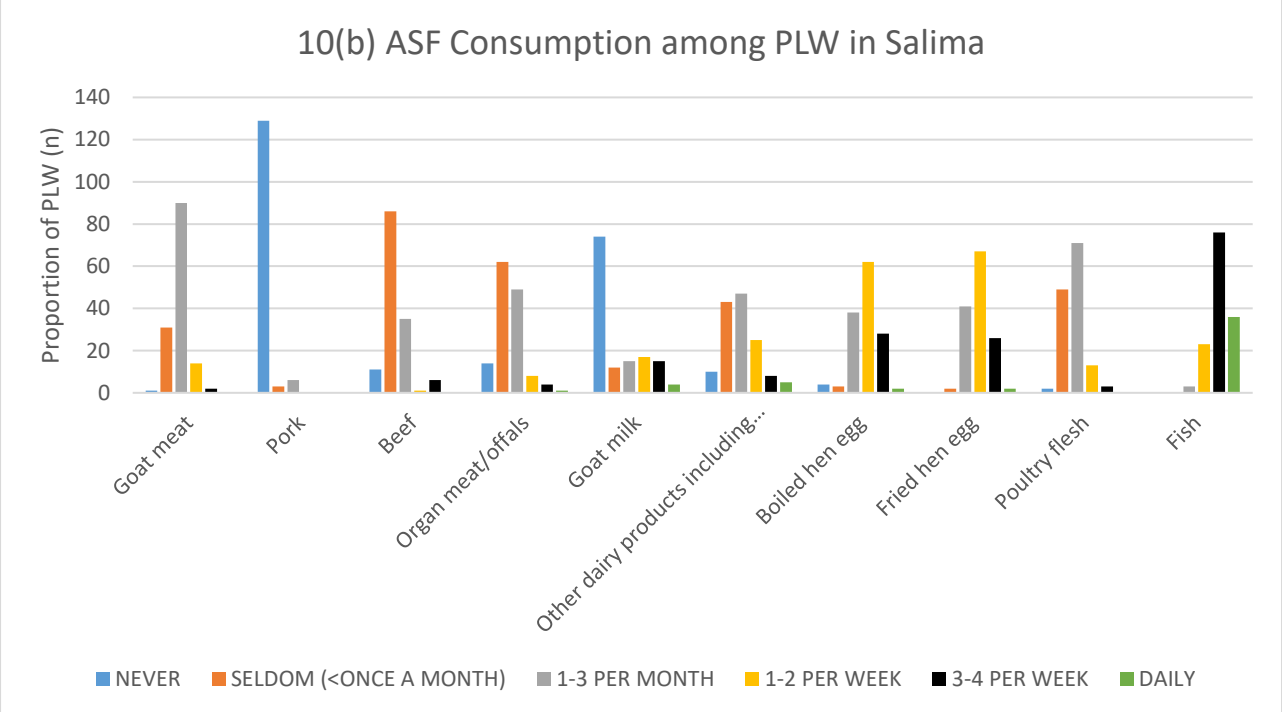
> "*We harvest the manure and use in our backyard gardens and sometimes even sell the manure or exchange with other things*." During an FGD at Chimwavi, TA Maganga, Salima District.

Whilst in some instances, beneficiaries have been able to harvest manure, there have been challenges due to the free-range raising of livestock, types of kraals constructed and number of stocks available that were learned during Focus Group Discussions (FGDs).

a) ASF consumption in PLW

Figure 10a and 10b show frequency of ASF among LPoS in Dedza and Salima





From figures 10a (Dedza) and 10b (Salima) above, the most animal source foods with most frequent consumption is fish in the form of small fish "*usipa*" (*Engraulicypris sardella*) owing to the affordable prices of these to most households. At a price of MWK 200 (Euro 0.22) a family of five can buy about 300 grams of fish and feed on it for a day. Some respondents reported during FDGs that they sell eggs to buy fish for their consumption.

Small fish like this are the most consumed ASF among LPoS beneficiaries (Source Alamy)

There is low consumption of goat milk across the two FNSP districts. This is largely associated to taboos and perceived palatability. 26.0 % of respondents believe that goat milk smells and should not be taken. Despite this, a research carried out from 1992 to 2004 by the University of Malawi has shown that goat milk is ideal for combating malnutrition and supplementing the diets of those with HIV and AIDS.[9]

This livestock study further compared ASF consumption between beneficiaries (treatment) and non-beneficiaries (control). These are presented in Table 18 below;

Table 18: ASF Consumption (N= 284)

ASF	Frequency	Treatment (%)	Control (%)
Goat meat[10]	1-3 times/month	54.4	33.3
	1-2 times/week	6.1	11.1
	Less than once per month	1.8	0.0
Pork (Pig Meat)	Never	59.6	53.7
	Less than once per month	18.4	25.9
	1-3 times/month	16.2	14.8
	1-2 times/week	4.8	5.6
	3-4 times/week	0.9	0.0

[9] https://www.orskovfoundation.org/lilongwegoats

[10] Treatments were 11 times more likely to consume goat meat than controls (p=0.02)

Beef	Never	9.6	11.4
	Less than a month	67.5	64.8
	1-3 times/month	20.6	20.4
	1-2 times/month	2.2	3.7
Organ Meat/Offals[11]	Never	7.5	20.4
	Less than a month	55.3	59.3
	1-3 times/month	29.4	14.8
	1-2 times/week	6.1	3.7
	3-4 times/week	1.3	1.9
	Daily	0.4	0.0
Goat milk	Never	71.8	81.5
	Seldom	5.7	5.6
	1-3 times/month	6.6	3.7
	1-2 times/week	7.9	1.9
	3-4 times/week	5.3	7.4
	Daily	3.6	0.0
Other dairy products	Never	8.3	18.5
	Seldom	39.0	46.3
	1-3 times/month	28	14.8
	1-2 times/week	16.2	13.0
	3-4 times/week	3.5	3.7
	Daily	3.9	3.7
Egg consumption	Never	1.3	3.7
	Seldom	6.1	11.1
	1-3 times/month	32.5	37.0
	1-2 times/week	41.2	38.9
	3-4 times/week	18.0	9.3
	Daily	0.9	0
Poultry Flesh	Never	2.6	1.9
	Seldom	42.5	48.0
	1-3 times/month	46.9	42.6
	1-2 times/week	6.6	5.6
	3-4 times/week	1.3	1.9

[11] Treatments were 11 times more likely to consume offals than controls (p=0.047)

Fish	Never	0.4	0
	Seldom	3.1	11.1
	1-3 times/month	8.8	3.7
	1-2 times/week	30.7	35.2
	3-4 times/week	40.8	37.0
	Daily	16.2	13.0

Table 18 shows frequency of consumption of most common animal source foods for beneficiaries and non-beneficiaries. Proportions are similar across the board for consumption of pork, beef, goat milk, eggs, poultry flesh and fish. Majority of both beneficiaries and non-beneficiaries never consume pork, 59.6% and 53.7% respectively. Similarly, most people never consume goat milk; 71.8% beneficiaries and 81.5% non-beneficiaries. Proportions of 20.6% of beneficiaries and 20.4% of non-beneficiaries consume beef 1-3 times a week. Up to 46.9% of beneficiaries consume poultry flesh 1-3 times a week and 42.6% of non-beneficiaries consume poultry flesh 1-3 times a week. Consumption of fish was similar for beneficiaries and non-beneficiaries, 40.8% of the former eating fish 3-4 times a week and 37.0% of the later eating fish 3-4 times a week.

There were also some differences in frequency of animal source food consumption between the beneficiaries and non-beneficiaries, particularly in consumption of organ meat (offals) and goat meat. Only 7.5 of beneficiaries reported never consuming organ meat, while close to a quarter (20.4%) non-beneficiaries reported never consuming organ meat. In other words, less non-beneficiaries consumed organ meat than did beneficiaries. This may be because of increased purchasing power to procure organ meat which is often cheaper than steak. There was also a significant difference in frequency of consumption of goat meat between beneficiaries and non-beneficiaries. While over half (54.4%) of beneficiaries eat goat meat at least 1-3 times a week, only slightly above a third (33.3%) of non-beneficiaries eat goat meat 1-3 times a week.

b) Differences in portion sizes at household level

Table 19 below shows portion sizes of frequently consumed animal source foods as assigned to men versus women and children at household level.

Table 19: Portion Sizes of Frequently ASF

Portion	**Large**			**Medium**			**Small**		
ASF	**Men**	**Women**	**Children**	**Men**	**Women**	**Children**	**Men**	**Women**	**Children**
Goat meat				✓	✓				✓
Organ meat/offals				✓	✓				✓
Eggs	✓				✓				✓
Fish	✓								✓

From table 19 above, a larger proportion of men are reported to receive large proportion of eggs and fish compared to women of reproductive age. Also, children 0-23 months are given small proportions of whatever animal source foods are consumed in the home.

This may be because of the emphasis of nutrition messages on inclusion of different food groups in women and children's diets rather than the need to balance out portion sizes. Current nutrition messages as provided by the National Nutrition Education Communications (NECs) emphasize consumption of 6 food groups, consistency of semi-solid foods by age and meal sizes (as measured in cups) for complementary fed infants and children. No specific guidelines are available on proportions of each food group.

Dedza is largely dominated by Ngoni ethnicity while Salima is populated by Yao ethnicity (NSO, 2017), both ethnicities are patriarchal giving priority to men over women and children which may also contribute to the culture of giving choice portions to men.

The male dominance on decision making and control, has made beneficiaries to regard the livestock given to them as "owned" by their husbands or other elderly male family members of the family in the case of single or widowed women. This entails too that critical decision making on the management and use of the livestock will be made by the male head of the family.

> "*The livestock belong to the husband, he makes decision of what we can use it for*." During an FGD at Kasumbu, Dedza District.

4.6.2 Frequency of ASF Consumption

c) *ASF consumption in Complimentary Fed Infants*

To ascertain ASF consumption in infants and children, preliminary chi square (χ^2) correlations were run and those showing significant associations were entered into logistic regression models. Logistic regression models were run to understand the relationships between dependent variables infant complementary feeding, y, (adding eggs, vegetables, meat, fish and milk to infant feeding) and independent variables Care Group membership β_1, time of last care group attendance β_2 participation in cooking demonstrations β_3, and treatment/Control β_4

$$y = \beta_0+\beta_1 X_1 +\beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

Coefficients were converted to odd ratios and findings were considered significant at $p<0.05$ and presented in Table 20 below:

Table 20: Determinants of IYCFP

Infant and Young Child Feeding Practice (IYCFP)	Determining Variable	Adjusted OR	p-value
Add eggs to porridge	Treatment	0.40	0.085
	Control	1.00	
	Had cooking demo	0.26	0.009
	No cooking demos	1	

	Attended care group session >1month ago	1	
	Attended care group session 1wk ago	2.45	0.041
	Attended care group session 1month ago	2.55	0.016
Add vegetables to porridge	Treatment	0.388	0.075
	Control	1	
	Had cooking demo	0.158	0.000
	No cooking demos	1	
Add fish to porridge	Treatment	0.420	0.128
	Control	1	
	Had cooking demo	0.182	0.004
	No cooking demos	1	
Add meat	Treatment	0.148	0.071
	Control	1	
	Had cooking demos	0.097	0.025
	No cooking demos	1	
	Attended session 1month ago	2.350	0.038
	Attended session >1month ago	1	

From the table above, it shows that the LPoS does not significantly influence the practice of adding eggs (p=0.085), vegetables (p=0.075), fish (p=0.128) and adding meat (p=0.071) to children's porridge. Attendance of care group cluster session in previous week or month doubles the odds of adding eggs and meat to children's porridge. Participation in cooking demonstrations however, reduced the odds of this adding eggs (p=0.009), vegetables (p=0.000). These findings are a possible reflection of mothers' access to foods such as eggs, food preference or simply reluctance to adopt to recommended infant feeding practices.

Participants were not very affected by food restrictions as a result of myths or taboos. The most met food restriction was pork (69.3%) as a result of religion. A quarter (25.1%) of interviewees believed children should not be fed eggs, 44.1% believed pregnant women should not eat eggs and 11.3 percent believed organ meat should not be consumed by neither pregnant women nor children.

5 SUMMARY AND CONCLUSION

The FNSP supported LPoS needs re-strategizing to be effective, relevant and provide value for money (see more on section 6.0). Factors such as smaller number of livestock (without males to accelerate breeding) and nature of breeds provided to beneficiaries that are not as per government recommended standards, limited stakeholder involvement in the planning process of the scheme, lack of standard operating procedures for the scheme (on procurement, implementation etc.), absence of key performance indicators and targets as well as non-systematic and diverse training approaches have made the LPoS not to realize its fuller benefits.

Thus far, the FNSP supported LPoS has no immediate impact on improving consumption of ASF to the beneficiaries due to delays to get off-springs and a quest by beneficiaries to pass-on first before selling or consuming as well as keeping the livestock as a cushion for economic shocks.

6 RECOMMENDATIONS

The team has suggested the following recommendations based on the findings and results:

Strategic Thrust	Recommendations
To improve effectiveness, relevance and efficacy of the LPoS	1.That GIZ and IPs (UP and CARE) **re-design the LPoS** through a thorough stakeholder consultation to implement it as per government minimum standards of LPoS (Key Question: Is the LPoS a best fit for promoting nutrition) **2. Establish measurable Key Performance Indicators** and targets for the FNSP supported LPoS across the IPs. 3. That GIZ and IPs (UP and CARE) **develop Standard Operating Procedures (SoPs)** to guide procurement processes and overall implementation on aspects such trainings etc, M&E as well as knowledge management. 4. Include **household capacity assessment to care of the livestock** as one of the criteria for targeting of beneficiaries and determination of li That IPs (CARE and UP) **review the period by which beneficiaries are** required to pass-on to subsequent beneficiaries and align them to government recommended standards (passing on chickens when the off springs are 4 months old, pigs 3-4 months old and for goats when they 5-7 months old) That IPs (CARE and UP) **facilitate the procurement of government recommended breeds** for LPoS. For chickens and goats, the recommended breed is the indigenous/local breed and for pigs is both indigenous and exotic breeds. That IPs (CARE and UP) **review the supply of livestock to initial beneficiaries** to be based on government recommended quantities that inclusion provision of males to facilitate timely breeding. That IPs (CARE and UP) will for the livestock management trainings **include husbands and other family members that will support the beneficiaries in key livestock husbandry practices.** That GIZ and IPs work with Ministry of Agriculture as well as other stakeholders to **design a comprehensive livestock management training curriculum** that will include other essential components such as constitution development etc

	That the IPs (UP and CARE) will **develop graphical (pictorial) beneficiary user manuals** that will guide beneficiaries in key livestock husbandry practices such as kraal construction and other husbandry practices to be done by beneficiaries. That IPs (CARE and UP) liaise with other like-minded implementers to **lobby for increased resource allocation to livestock production at district level**.
Improve the nutritional benefits derived from the LPoS	• That GIZ and the IPs **will review the type of livestock given to beneficiaries** to include those that offer short-term support to nutrition such as chickens only. • That the IPs (CARE and UP) **enhance the assertiveness of women** and address gender and power barriers that hinder decision making on use and consumption of ASF through incorporation of gender and power dynamics topics in the care group sessions. • That GIZ will work with the IPs to **develop a Social and Behaviour Change Communication (SBCC) Strategy for the program to work** around taboos and myths surrounding animal source food consumption (such as on goat milk and eggs for pregnant women and children) as well as the aim of the FNSP.

7 ANNEXES/ATTACHMENTS

Annex 1: Terms of Reference (TORs)

Terms of Reference

Short-term consultancy to assess the effectiveness and potential barriers of the livestock pass-on scheme under the GIZ Food and Nutrition Security Programme (FNSP)

Country: Malawi
Programme: Food and Nutrition Security Programme (FNSP)
Mandate: Evaluate functioning and nutrition-sensitivity of the livestock pass-on schemes (LPoS)
Location: Dedza and Salima districts

Introduction and Context

Background

The GIZ Food and Nutrition Security Programme (FNSP) aims to improve the nutrition situation and resilience to food crises of women and children under the age of two in the districts of Dedza and Salima. Key indicators of the programme are to improve dietary diversity of women and minimum acceptable diet of children but also to improve resilience of households in the target communities.
The programme focuses on four fields of activity:

(1) Improve knowledge, attitudes and practices related to nutrition and hygiene.
(2) Strengthen the resilience of households and communities to food insecurity.
(3) Strengthen the planning and coordination of nutrition-responsive measures and
(4) Feed lessons learned into the bilateral portfolio and mainstream scalable approaches in national processes.

The livestock pass-on scheme is promoted as a means for improving and diversifying diets of women and children. The scheme is a system where the first recipients of a particular livestock species donate the first female offspring to a second beneficiary. The process continues until all farmers in a group or community received an animal. The approach aims at ensuring that communities are able to maximize limited resources through sharing of the benefits.
To facilitate community entry into livestock ventures a small stock of livestock (goats, pigs and poultry) is promoted through a voucher system. Thus, animals are affordable, and growth and reproduction generate returns at low costs. Good practice is that the selected species are resilient to local conditions and are – to the extent possible – sourced locally. The livestock pass-on scheme is implemented by the two implementing partners (IPs) of FNSP, CARE in Salima and United Purpose in Dedza.

Recent analyses conducted under FNSP show that the effectiveness of the established pass-on scheme is questionable. Only a small percentage of beneficiaries participate in the activity, the procurement of healthy livestock in local markets is difficult, and the survival rate of livestock especially chicken tends to be low. Further, the contribution of the scheme to improve and diversify diets seems to be limited. There are, however, important contributions to household resilience, especially with livestock, such as goats and pigs, which can be sold in times of crises. Based on this observation, this analysis focuses on the barriers of animal husbandry and how to make the pass-on programme more successful. Examples of good practice and recommendations for improving the intervention will be provided.

This assignment consists of two parts. It includes the study and its logistical realisation and will be awarded as a contract for work. The study has the following objectives:

Objectives

(1) Assess the implementation of the schemes in terms of livestock procurement, selection criteria, pass-on rate, survival rate, household capacities for livestock keeping;
(2) Assess the effectiveness of the livestock pass-on schemes in terms of its effects on improving local diets (consumption of animal-based products, dietary diversification);
(3) Document challenges for the implementation of the scheme, barriers for the consumption of animal-based products, and good practices.
(4) Provide recommendations for further implementation of the scheme under FNSP.

The TORs are thus spilt in two parts: a technical (A) and logistical/enumerator (B) part. The logistical part includes supervision, training, management, and contracting of a cohort of enumerators proposed by GIZ FNSP. In the bid, technical and logistical costs must be split.

Technical part

1. Tasks to be performed by the contractor

a Documentation of functioning and current practices under FNSP

- Review of relevant documents (pass-on schemes FNSP is involved, studies done on the topic in Malawi and similar contexts)
- Prepare, conduct, analyse and document up to 10 KIIs (with project managers and field staff from FNSP implementing partners as well as other donors/NGOs implementing livestock programmes, Community Development Assistants, District Community Development Officer, Agricultural Extension Officers) and 5 FGDs (with beneficiaries)
- Systematically document how the livestock pass-on scheme works by addressing respective questions outlined in the Annex

Deliverables: *Questionnaires for KIIs and FGDs (tested and validated); Summary report systematically documenting the livestock pass-on scheme implemented under FNSP, if applicable highlighting differences with other approaches and best practices (to be validated by GIZ FNSP)*

b Assessment of implementation and effectiveness of livestock pass-on scheme to improve the food security situation and resilience against food and nutrition insecurity of the target group

- Prepare (based on the findings from task 1), conduct (with support from a team of enumerators contracted by GIZ), analyse and document a household survey in the districts Dedza and Salima with a total sample of up to 250 HH (including beneficiaries and HH, which do not participate in the livestock pass-on scheme as a comparison group)
- Ensure data quality daily
- Quantitative data analysis should include controlled regression analyses to identify (statistically sound) differences between beneficiaries receiving livestock and those who do not
- Based on the results of the quantitative survey, prepare, conduct, analyse and document up to 5 FGDs (with beneficiaries receiving livestock) with respect to the effectiveness of the intervention to improve the food security situation and achieve resilience against food and nutrition insecurity
- Ensure that the research methods and respective analysis addresses all topics outlined in the Annex.

Deliverables: *Questionnaire for Household Survey (tested and validated); Questionnaire for FGDs (tested and validated); Report documenting management and effectiveness of the livestock pass-on scheme (to be validated by GIZ FNSP)*

c Document challenges for the implementation of the scheme, barriers for the consumption of animal-based products, and good practices

- Based on the findings from the above qualitative and quantitative research document challenges, barriers, and good practices supporting the envisaged objectives of FNSP

Deliverables: *Report documenting challenges for the implementation of the scheme, barriers to the consumption of animal-based products, and good practices (to be validated by GIZ FNSP)*

(4) Provide key recommendations for future implementation

- Provide key recommendations for the further implementation under FNSP considering the target group and project objectives

Deliverables: *Report documenting key recommendations for future implementation (to be validated by GIZ FNSP)*

2. Methods and timeline

The assignment will be conducted based on the following methods:

- Literature Review/Review of existing guidelines and relevant documents
- Key Informant Interviews (KII)
- Focus Group Discussions (FGD)
- Household Interviews

Note: All products (questionnaires, sampling strategy, reports) have to be sent to GIZ FNSP in draft form for up to two rounds of commenting. GIZ FNSP must approve all final documents. The assignment will be executed in close cooperation with Daniel Pfaff from FNSP.

The assignment is scheduled for up to 35 days including up to 18 days of field research in Dedza and Salima. In case of a delayed start, the dates will be adjusted. All documents and products developed must be submitted in electronic form in English. The working language of this assignment is English. The questionnaire should be in developed in English, after approval, translated in a modified Chichewa version that is suitable to the local context and back-translated into English for monitoring purposes.

Note: Given the special situation regarding the COVID-19 threat as many tasks as possible should be completed minimising physical contact. Desk study and KIIs can be conducted from the home office. Tasks that require physical meetings e.g. FGDs and the survey need to be postponed until the situation is evaluated safe by the authorities and GIZ FNSP. The deadlines will be adjusted accordingly. In case that FGDs cannot be conducted in reasonable time they can be changed to KIIs in consultation with GIZ FNSP in order to proceed to the survey (development of the survey questionnaire, testing and sampling).

3. Required qualifications

The Consulting firm needs to propose consultants with the following qualifications:

- Master's degree in Animal Management/Science or Nutritional Science
- Proven experience in conducting and coordinating studies/surveys with a focus on qualitative and quantitative methods (attach abstracts);
- Five to ten years professional experience in the development sector, livestock management or nutritional sector:
- Experience with quantitative data analysis (preferably with SPSS or STATA);
- Fluency in reading, speaking, and writing in English and Chichewa.

The outline should be written in own words and show the understanding of the consultant of the matter. Please suggest briefly how you would measure the nutritional impact of the LPoS. Copy and paste will be sanctioned in the technical assessment. The technical assessment grid can be found in Annex 4.

Annex 2: Household Questionnaire LIVESTOCK STUDY -HOUSEHOLD QUESTIONNAIRE

INFORMED CONSENT

My name is _____ I am from GIZ Lilongwe. I would like to ask you a few questions concerning livestock farming and what women and children in your home eat. This information is strictly for research purposes and it will remain confidential. Take note that there are no incentives provided for participation, however, this research has potential to generate information that will be useful in planning programs not only in your area but in other districts of the country as well. Please feel free to interact with me for the next 45 to 60 minutes. Should you, for whatever reason decide not to continue with this interview, please feel free to discontinue. Are you willing to take part in this study?

Yes…1 (**PROCEED WITH INTERVIEW)** No…2 (**END INTERVIEW**)

SECTION 1: INFORMATION MODULE		
QQ No	Question	SKIP
101	Date of interview (dd/mm/yy)	
102	District *0=Salima* *1=Dedza*	
103	Traditional authority	
104	Group Village Headman/woman	
105	Extension Planning Area (EPA)	
106	Village	
107	Household number	
108	Is household a treatment or control? *1=Treatment 0=Control*	
109.	Enumerator name	
110	Team leader name	
111	Name of respondent	
112	Sex of respondent *0=Female* *1=Male*	
113	Age of respondent [__/__] years	
114	Marital status of respondent *1=currently married 4=widowed 2=divorced 5=never married* *3=separated*	
115	Is the respondent a woman who is pregnant and/or lactating? *1=Yes 0=No*	
116	Do you have an infant 6-23 months old? *1=Yes 0=No*	
Household characteristics		
117	What is the sex of the head of household? *0=Female* *1=Male*	
118	What is the highest education qualification acquired by the head of your household? *0=None 1=PSLC 2=JCE* *3=MSCE 4=Non-university Diploma* *5=University Diploma 6=Degree* *7=Post grad degree*	

119	What is the primary occupation of the head of the household? Specify other occupation *0=None* *1=Farmer, 2=Carpenter, 3=Tailor* *4=Charcoal maker, 5=Brick maker* *6=Formal employment, 7=Casual labour, 8=Business,* *9=Fisherman, 10=Other* Specify other _____	
120	What are other sources of income for the household? _____	
121	On average how much does the household earn in a year? *1=Less than 50,000 2=51,000- 100,000 3=101,000- 250,000 4=More than 251,000*	
122	How do you access financial loans? *1=friends/family 2=microfinance institutions 3=village savings loans4=Bank loan 5= Usury (Katapila) 6=No access to loans*	
Household list		
123	How many people live in the household? [__/__]	
List all members of the household giving only gender and age		*Repeat command in ODK*
	Gender	Age
124	How many women 15-49 years old in the household? [__/__]	
125	How many children 6-59 months old in the household? [__/__]	

SECTION 2: LIVESTOCK SUPPLY AND UTILISATION

201	How many chickens does/did the household… a. own before LPoS? [__/__/__] b. receive from LPoS? [__/__/__] c. currently own? [__/__/__]	206a	How do you use chickens received from LPoS? *1=Selling 2=Manure 3=Consumption 4 Other specify*	SKIP IF 108=0 and 201b≥1
202	How many goats does/did the household… a. own before LPoS? [__/__/__] b. receive from LPoS? [__/__/__] c. currently own? [__/__/__]			

203	How many pigs does/did the household… a. own before LPoS? [__/__/__] b. receive from LPoS? [__/__/__] c. currently own? [__/__/__]		206b	How do you use goats received from LPoS? *1=Selling 2=Manure 3=Consumption 4 Other specify*	SKIP IF 108=0 and 202bb≥ 1
204	Who chooses the type of livestock received from LPoS? *1=Self 2=Spouse 3=Extension worker 4=Project staff 5=Other relations 7=Don't know 8=Other specify*	SKIP IF 108= 0 and 201b/ 202b/ 203b ≥1	206c	How do you use pigs received from LPoS? *1=Selling 2=Manure 3=Consumption 4 Other specify*	SKIP IF 108=0 and 203b≥1
205	How did you receive the livestock? *1=livestock fair 2=Voucher 3=community distribution mechanism 4=Other specify* _____	SKIP IF 108= 1 and 201b/ 202b/ 203b ≤1	206d	How do you use manure from livestock? *1=Applied in backyard garden 2=applied in main crop garden 3=Sold 4=Nothing 5=Other specify*	SKIP IF 206a≠2 and 206b≠2 and 206c≠2

207	How much did you sell?	SKIP IF 108=0 and 206a≠1 or 206b≠1 or 206c≠1
208	How much did you spend taking care of the animal?	SKIP IF 108=0 and 206a≠1 or 206b≠1 or 206c≠1
209	Which livestock would you have preferred to receive **(select one)** *1=Goats 2=Pigs 3=chickens 4=Cattle 5=Milk cows 6=Donkeys/mules 7=Other poultry (pigeon, guinea fowl, turkey etc.) 8=Sheep 9=Rabbits/guinea pigs 0=None*	
209a	Explain your choice *1=Multiply fast (high prolificacy) 2=Easy to manage 3=Disease resistant 4=Easy to feed 5=Easy to sell 6=Common in the area 7=Promoted by extension workers/NGOs/Govt 8=Other specify___*	
210	On average how long before animals are ready for pass-on? a. Goats [__/__/__]months skip if 202c=0 b. Pigs [__/__/__]months skip if 203c=0 c. Chickens [__/__/__]months skip if 201c=0	Skip if 108=0
211	Have you already passed on animal to another? *1=yes, 2= no*	Skip if 108=0
212	If no provide the reason; *1= animals not ready* *2=recipient khola not ready* *3=animals died* *4=animals sold* *5=other specify*	Skip if 211=1
213	What happens when a beneficiary fails to pass- on animal *1=Project replaces*	

	2=Beneficiary buys other animals for replacement *3=Nothing* *4=Never happened* *5=Don't know* *6=Others, please explain*	
214	Is the livestock pass-on system beneficial to you? *1=yes, 2= no*	
215	How was the pass on scheme beneficial to you? *1=Increased income 2=Increased consumption of animal source foods 3=Able to have both pants and livestock 4=Other specify _____*	
216	Why has the scheme not been beneficial to you? *1=Animal died shortly after arrival 2=No capacity to care for animal 3=No support from extension workers 4=Low selling price 5=Low quality of livestock from scheme 6=Other specify _____*	
213	Where are animals sourced for breeding? *1=Lead farmer 2=Local market 3=Vendors 4=Registered livestock suppliers 5=Other specify_____*	SKIP IF 108=0
214	Have you been trained on livestock management? *1=Yes 2=No*	
215	How often do you receive training *1=weekly 2= fortnightly 3=monthly 4=Biannually 5=annual*	
216	What topics were covered by the training? **Select multiple** *1=animal health animal breeding 3=housing 4=feeds and feeding 5=marketing 6=Other specify_____*	
217	Who trained members of the household? *1=NGO extension worker 2=Govt. extension worker 3=Government assistant veterinary officers 3=Others specify _____*	

SECTION 3: LIVESTOCK CARE AND MANAGEMENT

HOUSING						
301	a. Where are chickens kept during the day? b. Where are chickens kept during the night? *1=Kraal (khola) 2=roam about 3=in family house* **SKIP IF 201c=0**	302	a. Where are goats kept during the day? b. Where are goats kept during the night? *1=Kraal (khola) 2=roam about 3=in family house* **SKIP IF 202c=0**	303	a. Where are pigs kept during the day? *b.* Where are pigs kept during the night? *1=Kraal (khola) 2=roam about 3=in family house* **SKIP IF 203c=0**	
304	**Observe** livestock housing for the following and record appropriate response. a. Thatched leak-proof roof. b. Well ventilated room. c. Good lighting.					SKIP IF 301b= 2 or 3, 302b=2 or 3, 303b =2 or 3

	d. Good drainage e. Easy access for dropping removal. f. Enough space for number of livestock. g. Separated from kitchen of livestock. *1=present 2=absent 3=not observed* *Comment if no observations were made* _____	
305	Who in the family is responsible for Kraal construction? *1=Self 2=Spouse 3=Children 4=Other family members 5=Other specify* _____	
306	What challenges do you meet when constructing kraals? *1=Scarce materials 2=lack of man power 3=lack of skill 4=lack of space 5=Other specify*	
307	Who in the family is responsible for cleaning the Kraal? *1=Self 2=Spouse 3=Children 4=Other family members 5=Other specify* _____	
308	During the rainy season, how many hours do you spend taking care of livestock in a day? [__/__]	
309	During the dry season, how many hours do you spend taking care of livestock in a day? [__/__]	
310	During the rainy season, how many hours do you spend taking care of crops in a day? [__/__]	
311	During the dry season, how many hours do you spend taking care of crops [__/__]	
FEEDING		
308	Who in the family is responsible for feeding livestock? *1=Self 2=Spouse 3=Children 4=Other family members 5=Other specify*	SKIP IF 201c=0 202c=0 and 203c=0
309	What is the main source of chicken feed? *1=Kitchen waste 2= Maize bran 3= Commercial feed 4=Other specify*	SKIP IF 201c=0
310	What is the main source of feed for goats? *1= fodder 2= supplements(maize bran)3=Free browsing 4=Other specify*	SKIP IF 202c=0
311	What is the main source of feed for pigs? *1= Kitchen waste, , 2= Maize bran 3= Commercial feed 4=Other specify*	SKIP IF 203c=0
312	How often are chickens fed? *1=Once a day 2=Twice a day 3=3 times a day 4=Free range with little supplementation 5=Free range with no supplementation.*	SKIP IF 201c=0
313	How often are goats fed? *1=Once a day 2=Twice a day 3=3 times a day 4=Free grazing*	SKIP IF 202c=0

314	How often are pigs fed? *1=Once a day 2=Twice a day 3=3 times a day 4=Free grazing*	SKIP IF 203c=0
315	What challenges do you meet in feeding livestock? *1=Scarce materials 2=lack of man power 3=lack of skill in preparing feed 4=No capacity for storage 5=Other specify*	SKIP IF 201c=0 202c=0 and 203c=0
PEST AND DISEASES CONTROL		
316	What are the most common diseases your livestock suffer from? a. Chickens: *1= Newcastle disease 2=diarrhoea 3=coughing, 4= Avian Inflenza, 5=Avian Tuberclosis, 6=coccidiosis* b. Pigs: *1=African Swine Fever 2=diarrhoea 3=coughing 4=Foot and Mouth, 5=coccidiosis, 6=Swine Dysentery* c. Goats:*1=Foot and Mouth 2=diarrhoea 3=coughing 4=Orf, 5=Pneumonia 6=Ringworm*	SKIP IF 201c=0 202c=0 and 203c=0
317	What are the most common pests your livestock suffer from? a. Chickens:*1=fleas 2=worms,* b. Pigs:*1=worms 2=mites* c. Goats *: 1=worms 2=lices*	
318	Has you livestock ever had any of the above pests or diseases? *1=Yes 0=No*	
319	What did you do? *1=Took animal to vet 2=Gave animal vaccine 3=Gave animal medication 4=Killed animal and ate meat 5=killed animal and sold meat 6=Other specify_____*	SKIP IF 30 =0
320	Are animals routinely vaccinated? 1=*Yes 0=No*	SKIP IF 201c=0 202c=0 and 203c=0
321	Where do you get vaccines? *1=Extension workers 2=Veterinary 3=Care/UP staff 4=Buy from vendors 5=Other specify_____*	SKIP IF 320=0
322	What type of disease have you got from your livestock a. Chicken: 1=Salmonella, 2=Avian Infuenza b. Pigs: 1=Skin condition (*erysipeloid*), 2= bacterium Streptococcs c. Goats: 1=Rabies, 2=Soremouth, 3=Ringworm, 4=Salmonella	
322	What are the main constraints around the management of livestock that you face? *1= Diseases and pests 2=Feed is expensive 3=Scarcity of construction materials 4=Lack of training 5=Other specify*	SKIP IF 201c=0 202c=0 and 203c=0

4: SALE OF LIVESTOCK

401	What animal-based products do you sell? Select multiple *1=Meat 2=Hides 3=Milk 4=Eggs 5=Don't sell*	
402	Where do you sell your products?	SKIP IF 401=5

	1=Nearby market 2=Within community 3=Middlemen/vendors 4=supply organisations 5=supply butcheries/restaurants 6=Other specify_____	
403	Who decides where to sell? *1=Self, 2=Spouse, 3=Children, 4= Other relations.5=Other specify*	SKIP IF 401=5
405	Is there a readily available market for produce? *1=Yes 2=No*	
406	How long does it take to sell from the time you decide to sell? *1=Same day 2=Within 7days 3=7-14 days 4=14-30 days 5=More than 30 days 6=Never sold*	
407	Roughly how much income is generated per year from animal product sales? MK_____	SKIP IF 108=1 and 401=5
409	Who decides how much to sell? *1=Self, 2=Spouse, 3=Children, 4= Other relations.5=Other specify*	SKIP IF 401=5
410	Is the sale of animal products the main source of household income or just an additional income source? *1=primary source of income 2=additional income 3=not a source of income*	
411	What do you do with money received from selling livestock? *1=Purchase food 2=Buy groceries (soap etc.) 3=Pay school fees 4=Spend at social gathering (wedding, Christmas celebration etc.) 5=Spend in crisis situation (e.g. to pay for funeral or hospital bills) 6=Other specify*	
412	What prompted you to sell livestock? *1=Need to purchase food 2=Need for school fees 3=emergency situation (funeral/illness) 4= Social gathering (wedding, Christmas celebration, initiation ceremony etc.) 5=Animal was diseased 6=Could not afford animal care (feeding, housing etc.) 7=Other specify*	
413	Have you experienced any of the following calamities in this area? a. Drought: 1=Yes, 2=No b. Floods : 1= Yes, 2=No c. Hunger crisis : 1=Yes, 2=No	
414	If yes to any of the above, was livestock sold to help the situation? 1=Yes, 2=No	
415	If Yes to question 414 above, what season of the year was it? 1=Dry season 2=Rain season	

SECTION 5: CONSUMPTION OF ANIMAL SOURCE FOODS

I would now like to ask about consumption of animal source foods in your home.

501	Who in the family decides when to consume livestock from the pass on program? *1=Self 2=Spouse 3=Children 4=Other family members 5= Has not yet consumed any 6= Other specify*_____	SKIP IF 108=0
502	Are you a member of a care group? *1=Yes 0=No*	
503	When was the last time you attended a care group session or received a visit from a lead mother? *1=less than a week ago 2=1 week ago 3=2 weeks ago 4=a month ago 5=more than a month ago*	SKIP IF 502=0
504	How often did you attend care group sessions before the corona pandemic? *1=Weekly 2=Fortnightly 3=Monthly 4=Never*	
505	Have you participated/attended care group cooking demonstrations? *1=Yes 0=No*	
506	Do you add eggs to infants' porridge? *1=Yes 2=No*	SKIP IF 116=0
507	Do you add vegetables to infants' porridge? *1=Yes 2=No*	
508	Do you add fish to infants' porridge? *1=Yes 2=No*	
509	Are infants given meat that has been grinded? *1=Yes 2=No*	
510	Do you add Milk to infants' porridge? *1=Yes 2=No*	
511	Do you give infants' fresh milk (goat/cow)? *1=Yes 2=No*	
512	What is the main barrier to consuming your own animal source foods? *1=Prefer to sell 2=Decision maker won't allow it 3=Food not preferred 4=No barriers met 5=Other specify*	
513	What taboos exist in your community about feeding infants animal source foods? **(select multiple)** *1=children should not eat eggs 2=Goat milk smells and should not be drunk 3=Don't know any 4=Other specify* _____	
514	What taboos exist in your community about pregnant women eating animal source foods? **(select multiple)** *1=Should not eat eggs 2=Goat milk smells and should not be drunk 3=Organ meat is forbidden 4=Don't know any 5=Other specify* _____	
515	Do these taboos affect you? *1=Yes 2=No*	SKIP IF 115=0
516	Are you able to consume all 6 food groups in a day? *1=Yes 2=No*	
517	Do you have a backyard garden where you get vegetables that you eat? *1=Yes 2=No*	
518	Do you have fruit trees in your compound? *1=Yes 2=No*	

519 How often were these food items consumed in your home before you were part of LPoS? SKIP IF 108=0 *USE PICTORIAL GUIDE FOR PORTION ESTIMATION*

	FREQUENCY OF CONSUMPTION						PORTION SIZE		
FOOD ITEM	Never	Seldom (less than once a month)	1-3 per month	1-2 per week	3-4 per week	Daily	Men	Pregnant or lactating women	Children 6-24months old
Red meat									
Goat									
pork									
Beef									
Organ/ Offals									
Milk products									
Goat milk									
Other dairy products including cow milk									
Hen eggs									
Boiled									
fried									
White meat									
Poultry flesh									
Fish									

520 How frequently are the following food items consumed in your household? **USE PICTORIAL GUIDE FOR PORTION ESTIMATION**

	FREQUENCY OF CONSUMPTION						PORTION SIZE		
FOOD ITEM	Never	Seldom (less than once a month)	1-3 per month	1-2 per week	3-4 per week	Daily	Men	Women	Children
Red meat									
Goat									
Pork									
Beef									
Organ/ Offal									
Milk products									
Goat milk									
Other dairy products including cow milk									
Hen eggs									
Boiled									
fried									
White meat									
Poultry flesh									
Fish									

END OF QUESTIONNARE

THANK YOU FOR YOUR PARTICIPATION

PORTION SIZE PICTORIAL GUIDE

MEAT

Code: 1=Large 2=Medium 3=Small 4=None

1

2

3

POULTRY

Code: 1=Large 2=Medium 3=Small 4=None

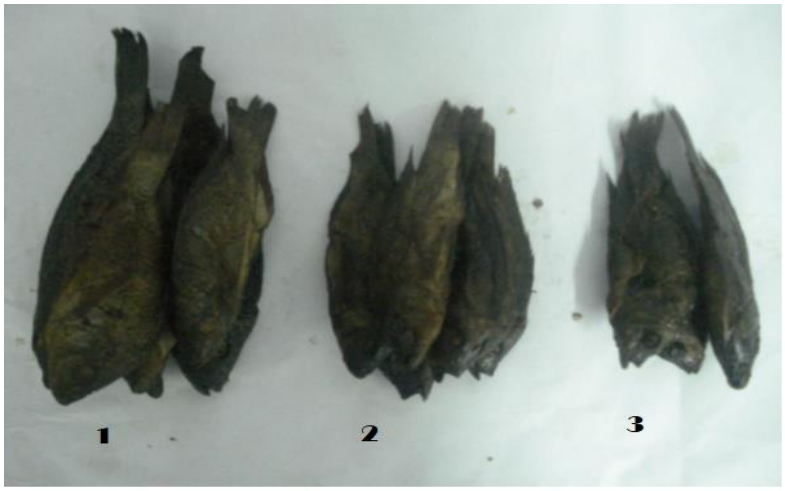
1

2

3

FISH

Code: 1=Large 2=Medium 3=Small 4=None

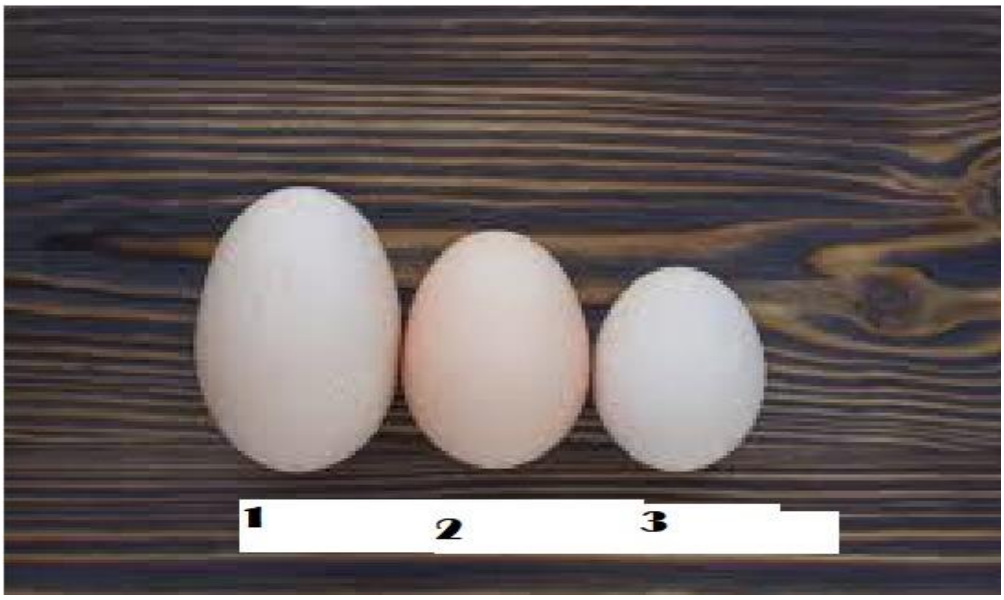



1
2
3


1
2
3

HEN EGGS

Code: 1=Large 2=Medium 3=Small 4=None



MILK PRODUCTS

Code: 1=Large 2=Medium 3=Small 4=None

2 3

3

Annex 3: Focus Group Discussion

FOCUS GROUP DISCUSSION (FGD) GUIDE- LPoS EVALUATION
INSTRUCTIONS:

- Two facilitators are needed for FGD and they should take turns, one to ask questions and one to document.
- Female participants to have discussions with female facilitators likewise for males.
- Always get consensus from the group before you write anything – ask questions such as "what she has said, do we all see/do it in our area"
- Don't let one person dominate responses, you can even give them numbers and just be picking the numbers randomly.
- Always ask for details, for example if a person says "we invite an extension worker" ask the name of the extension worker, the EPA they are from (If possible get distances) and more other specific information. Please DON'T simply write, "they invite extension worker- always ask names/positions of these"
- Make the FDG fun but full of information. Start with a song etc… and any other games/ice breakers that enables participants to feel free and ready to contribute
- Participants to sit in a circle and facilitators must not sit together, one must be in the cycle with participants. Avoid creating a classroom environment but observe all the necessary physical distancing.

Read out the introduction, consent statement and write names of participants (voluntary) on the FGD register form

INFORMED CONSENT

My name is _____and my colleague is _____ we are from GIZ Lilongwe. We are working with GIZ/United Purpose/Care International to learn from you on how the livestock pass- on scheme is working, the benefits and the challenges seen and more importantly to hear your views on how it can work better for improved nutrition. We thank you for your willingness to meet with us. As we discuss/chat, my colleague will take notes of our discussions. The information you share is strictly for research purposes and it will remain confidential. Are you willing to take part in this discussion?

NAME OF FACILITATOR: _____

DATE OF FGD:

_____

PLACE OF FGD:

_____

A. SUPPLY OF LIVESTOCK

Q1. What type of livestock do you receive from CARE/UP? How many do you receive? How was it delivered to you (Get a count of who got what)?

Q2. Are the livestocks that you were given to you what you wanted and expected? Were you satisfied with the health of the livestock and time of the year when it was given to you?

_____

_____

_____

_____

_____

_____

Q3. Are you informed of what and when you are receiving the livestock, who informs you?

_____

_____

_____

_____

Q4. What do you do to ensure that you get healthy stock? Who else supports you to get healthy stock? Do they give you adequate support to ensure that you have healthy stock?

_____

_____

_____

_____

_____

Q5. Are you aware of what you need to do say for example you have received livestock and it dies the next day? (pay attention to things such as available guarantee period and nature of guarantee)

_____

_____

_____

_____

Q6. What do you think need to improve on how you get the livestock? (Take note of what is working well now too)

B. DISTRIBUTION OF LIVESTOCK

Q7. How and why were you selected to receive the livestock? How many wanted and how many received the livestock?

Q8. Are you contended with the processes on how you receive the livestock (s), what do you think needs to improve in the processes involved?

Q9. Do you think you able to handle and care for the livestock in the following areas?

C& M AREA	WHAT IS EASY FOR YOU	WHAT MAKES IT EASY
Feeding		
Housing		
Breeding		
Pest and district control		

Q10. Who determines which livestock to receive and why? If not the beneficiary probe if they are satisfied with the choices?

C. TRAINING NEEDS

Q11. What kind of training do you receive on livestock management? How often and by whom?

Q12. Do you feel well informed about livestock keeping and management? (Why? Why not?)

Q13. How often do you get extra livestock management support in your community? By who?

Q14. How would you want the training to be done and what would you want to be included in the training that is currently not included?

D.LIVESTOCK CHOICE BY BENEFICIARIES

Q15. What livestock do most households prefer and why? (Do they get what they want- further examine things such as other type of livestock they may want to receive and why??

Q16. What are the main challenges you face to manage the livestock you receive?

LIVESTOCK	CHALLENGE(S) IN MANAGING	RECOMMENDATIONS FOR IMPROVEMENT
GOATS		
PIGS		
POULTRY		

E. SALE AND CONSUMPTION OF ASFs

Q17. How do you use the livestock that you receive? (Ask why to each response)

Q18. At household level, who owns the livestock mostly? Who makes decisions on the usage of the livestock?

Q19. If the livestock is sold – how do you use the money –on what items and who makes such decisions?

Q20. What has changed in your households' in terms of consumption of animal source foods? (Take note of frequency /week of consumption and type)

Q21. Overall, what do you think have changed in terms of consumption of animal source foods to PLW and children 6-24 months?

F: CARE AND MANAGEMENT OF LIVESTOCK

Q22. Are there any by-laws in the community defining to what extent and where livestock is allowed to roam around freely? How are the participants involved in is the establishment of by-laws? –what happens when there is no adherence, are there penalties (in what form) for not adhering to by-laws? Has any of you been penalized before? Are the penalties manageable?

Q23. Who does and how do you manage the following:

AREA	WHO DOES IT AT HOUSEHOLD LEVEL	WHAT ARE SOME OF THE CHALLENGES AT THE MOMENT
Kraal construction		
Feeding		
Pest and disease control		

Q24. Are your kraals designed to harvest manure, what do you use the manures for (probe for availability of backyard gardens too)?

Q25. What are challenges in keeping the livestock?

LIVESTOCK	CHALLENGE(S)
Goat	
Pigs	

Chickens	

Q26. Where do you get other livestock for breeding after pass on? Is that easy to get?

Q27. When is the offspring delivered to the second-line beneficiaries? What challenges do you face on the pass –on-, any issues/problems that affect or delay the pass-on to another beneficiary, how are these resolved?

Q28. How do you think the LPoS has helped your households? What changes do you see in life now as a result of the LPoS?

Q29. Overall, what are the main challenges in managing the livestock for your maximum benefit (pay attention to sale and consumption) and what do you think need to be done to improve this?

THE END
THANK YOU FOR YOUR TIME AND PARTICIPATION

Annex II: Key Informant Interviews

IMPLEMENTING PARTNERS (United Purpose, CARE)

A. Supply of Livestock

Q1. Can you briefly describe the livestock procurement process?

Q2. Where are the livestocks procured?

LIVESTOCK	LOCAL MARKETS	WHY THESE MARKETS/SUPPLIERS	DISTANCE	AGE	TIME OF THE YEAR
GOATS					
PIGS					
POULTRY					

Q3. What do you do if you don't have sufficient stocks/breeds in these places? If stock is not available how long does it take you to have the stock provided by the supplier?

Q4. How is the health status of livestock before procurement determined? Who is involved in the process? Do these people have the capacity to do health checks?

Q5. What are suppliers expected to do to the live stocks before procurement?

Q6.

Q7. Is there an agreement with the supplier on warranty/guarantee?

LIVESTOCK	GUARANTEE GIVEN (YES/NO)	PERIOD OF GUARANTEE
GOATS		
PIGS		
POULTRY		

Q8. What has been the experience so far- does this work?

Q9. Do you have suggestion on areas for improvement of the livestock procurement process?

B: **<u>Distribution of Livestock</u>**

Q10. How are beneficiaries selected? Does the community understand and agree with the criteria used to select beneficiaries?

Q11. Why do you think some beneficiaries do not participate in the LPoS?

Q12. Is there standard operating procedures (SOPs) for the LPoS, how was this developed? (Get a copy)

Q13. What type of households are able to manage and handle the livestock? (Pay attention to incomes and food security status of households)

Q14. What kind of livestock do beneficiaries prefer and why? Are they provided with what they prefer?

Q15 what role does UP/CARE play in the choice of livestock? Are there circumstances when you have differed with the communities in the choices how do you then reach a compromise, what happens when there are several choices within the communities?

C. Training Needs

Q16. What kind of trainings do beneficiaries receive and how often? Who provides these trainings? How are the trainings delivered? (Get a copy of the training content/report etc…)

Q17. Are there follow-ups on the beneficiaries to support their livestock management and by whom? (Ask why if they are no follow-ups)

Q18. What are potential knowledge gaps that have been observed thus far? How are these gaps being addressed, any suggestions for the future?

Q19. What are the challenges for most beneficiaries to practice what they have been trained on?

D. Sale and Consumption of Animal Source Foods

Q20. How do most households use the livestock? (get more details and how each one is done including the manure)?

Q21. Do you think there is a difference in consumption of ASF as a result of LPoS? How have the care group lessons helped this too? (Get data if its available?)

Q22. Is sale of livestock common among beneficiaries? Which livestock (goats, pigs or chickens) are sold the most? (Get info on average prices, what makes them sell, during which season?)

Q23. What are the challenges in consumption of animal source foods from your experience and observation?

Q24. How can consumption of ASF be improved among women and children? What needs to be done differently in households, care groups etc.

Q25. Overall, what are the gaps that you see on the Livestock Pass on Scheme (LPoS)?

a) GIZ as a donor of the project

b) CARE/UP Implementers

C) Government support to the program

c) Community members and beneficiaries

Q26. _What recommendations can you make on the LPoS? (Look at management of the livestock as well as nutrition- use Q25 format)?

AVO, DAHIDO, DADO

Q1. How are you involved in the livestock pass on program in the district/EPA? (Take note of the roles) who else is doing LPoS schemes in the district/EPA?

Q2. Are there are other NGOs/agencies working on LPoS in the FNSP/UP/CARE impact areas? From these, what kind of livestock are mostly used? Overall, what are community preferences?

Q3. Where do you recommend that livestock be procured from? Do you make these recommendations to UP/CARE?

LIVESTOCK	MARKETS	WHY?
GOATS		
PIGS		
POULTRY		

Q4. What are suppliers expected to do before procurement is done?

Q5. What is the best age and time of year for livestock delivery? Is this the case with the LPoS implemented by UP/CARE- If not why?

LIVESTOCK	AGE AT TIME OF DELIVERY	TIME OF YEAR FOR DELIVERY
GOATS		
PIGS		
POULTRY		

Q6. What can be recommended guarantee periods for the livestock- what should be included in the guarantees?

LIVESTOCK	GUARANTEE GIVEN (YES/NO)	PERIOD OF GUARANTEE
GOATS		
PIGS		
POULTRY		

Q7. In your view, what should be the criteria for selecting beneficiaries for livestock pass-on schemes, why? (Ask more too of who needs to be available for the setting the criteria)

Q8. What roles do communities play/expected to do in the livestock pass-on schemes? Any best practices from other projects in the district/area?

Q9. Can poor and food insecure households handle livestock appropriately? If yes, how? If not, what can be done to support them

Q10. What kind of livestock do beneficiaries prefer and why? With your experience what do you think are the best livestock for the beneficiaries in the communities, why?

Q11. In what ways are you involved in the FNSP project LPoS (Probe on frequency on any involvement as well as on bye-laws)

Q12What kind of trainings do you often give to livestock farmers? Who provides these trainings?

Q13. Any support you provide to beneficiaries on the use of manure from the livestock (how is this done?)

Q14. What needs to happen after the trainings for effective management? What is currently being done by you and others to continue supporting the beneficiaries in effective livestock care and management?

Q15. In your experience, what are most knowledge gaps among livestock keepers? What is the main problem to translate knowledge into practice among beneficiaries? How can these knowledge gaps be addressed?

Q16. Have you observed any differences in the consumption of ASF than before? Can this be attributed to the LPoS

Q17. What are the main challenges in the following, and how do you support the beneficiaries?

AREA	CHALLENGE AND TIME OF THE YEAR	SUPPORT YOU PROVIDE
Management		
Feeding		
Survival		
Breeding		
Pests and Diseases		

challenges in consumption of animal source foods from your experience and observation?

Q18. From your experience, how can consumption of ASF be improved among women and children?

Q19. Do you think livestock are a safety net to cushion households from food and income shocks? (if yes, and how?)

Q20. Overall, what are the gaps that you see in the Livestock Pass on Scheme (LPoS) implemented by CARE/UP? (Focus on effectiveness of the scheme and nutrition)

Q21. What recommendations can you make on the LPoS?

END OF QUESTIONNAIRE
THANK YOU FOR YOUR PARTICIPATION