



FINAL REPORT

BASELINE STUDY FOR THE “PRO RESILIENCE ACTION PROGRAMME

Submitted

By

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Save the Children



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LIST OF ACRONYMS

AEDC	Agricultural Extension Development Coordinator
BMI	Body Mass Index
CA	Christian Aid
CBO	Community Based Organization
CHH	Child-Headed Household
CK	Chikwawa
CSA	Climate Smart Agriculture
CSI	Coping Strategy Index
CSSC	Community Social Support Committee
CWW	Concern World Wide
DSCTPS	District Social Cash Transfer Program Secretariat
EU	European Union
EWS	Early Warning System
FHH	Female-Headed Household
FISP	Farm Input Subsidy Programme
FUTURE	Food and Nutrition for Resilience
GoM	Government of Malawi
GVH	Group Village Headman
HDDS	Household Dietary Diversity Score
HH	Household
IGA	Income Generating Activities
IHS	Integrated Household Survey
KIDERTCO	Kirk Development Research, Training and Consultants
KII	Key Informant Interview

M&E	Monitoring and Evaluation
MAD	Minimum Acceptable Diet
MHH	Male-Headed Household
MJ	Mulanje
MN	Mwanza
MVAC	Malawi Vulnerability Assessment Committee
MZ	Mzimba
NE	Nsanje
NN	Neno
NRU	Nutritional Rehabilitation Unit
NSSP	National Social Support Programme
ODK	Open Data Kit
PASS	Power Analysis Sampling Software
PPS	Probability Proportional to Size
ProACT	Pro-Resilience Action
SCTP	Social Cash Transfer Programme
SOLDEP	Synod of Livingstonia Development Programme
SPSS	Statistical Package for Social Sciences
TORs	Terms of Reference
UP	United Purpose
VC	Village Cluster
VCPC	Village Civil Protection Committee
VSL	Village Savings and Loans
ZA	Zomba

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Amon Kabuli, PhD

Team Leader

PROJECT SUMMARY

Project Name	Pro-Resilience Action: Resilience building mechanism for Food and Nutrition Security
Donors	The European Union
Total budget	EUR9, 473,684.20
Implementing Organisation	UP-consortium partners are Concern Worldwide, Save the Children International and United Purpose while Christian Aid Consortium comprises Christian Aid, CARE Malawi, Eagles Relief and Development and Synod of Livingstonia Development Program (SOLDEV)
Project Lifespan	3-year programme from Nov 2017 – Oct 2020
Key Partners	Relevant Ministries, District Councils and Government Departments e.g. Department of Disaster Management Affairs (DoDMA), Department of Nutrition, HIV and AIDS (DNHA) and the Social Welfare Department, Ministry of Agriculture, Irrigation and Water Development (MoAIWD)
Project Goal	To contribute to the reduction of food and nutrition insecurity for 65,058+ most vulnerable households in targeted districts of Malawi
Strategic Activities	<ol style="list-style-type: none"> 1. Ensuring that vulnerable households are resilient to food and climate change shocks in all the targeted districts. 2. Strengthening community resilience to avoid future shocks.
Project Districts	Nsanje, Chikwawa, Mulanje, Mwanza, Neno, Zomba, Mzimba South and Mzimba North.
Communities Targeted	65,058+ most vulnerable households mostly Social Cash Transfer Beneficiaries ((35,461+ in the UP-led consortia districts and 29,597+ in the CA-led consortia districts) in all 7 targeted districts

EXECUTIVE SUMMARY

Background of the study

Christian Aid and United Purpose are leading separate consortia implementing the Pro-Resilience Action (Pro ACT) programme with funding from the European Commission. The programme aims to address existing food and nutrition security challenges among the poorest households under social cash transfer in seven districts by increasing their resilience to climate-related stresses and shocks. The project will support interventions that foster great resilience to climatic shocks and diversification of livelihoods for vulnerable households and create synergies with the existing support to Social Cash Transfer Programme (SCTP). With this background, Christian Aid Malawi and United Purpose jointly commissioned the baseline study for the programme. The assessment was required to establish and verify baseline indicators related to the current food and nutritional status of the project beneficiaries and their ability to respond to climatic shocks. The baseline was conducted in the 7 districts of Nsanje, Zomba and Mulanje under the United Purpose led consortium and in Chikwawa, Mwanza, Neno, Mzimba North and Mzimba South under the Christian Aid led consortium

The overall objective of the assignment was to carry out a baseline study for the **“Pro-ACT programme”** in order to determine the pre-project situation against major project indicators. This would provide a benchmark on which to formulate project targets and a basis for assessing project milestones during and impact after implementation.

Methodology

The baseline survey adopted mixed methods approach where a number of complementary qualitative and quantitative data collection tools were developed to assist in addressing the baseline study objectives. The data collection exercise started with a desk review of project documents to inform the data collection approaches in the field as well as the design of the research study. The team also used other data collection methods/techniques that included in-depth key informant interviews, household surveys, case studies and focus group discussions. The team used a multi-stage cluster sampling technique to select the households from the 7 districts of Mwanza, Nsanje, Zomba, Mulanje, Chikwawa, Mzimba and Neno respectively to participate in the household survey. The first stage involved a purposive sampling of the districts which were basically the implementing districts of the programme. During the second stage, the team used cluster sampling to select the social cash transfer clusters which were actually located within the Group Village Headmen (GVHs)¹ to participate in the survey. These GVHs were also the ones in which the Social Cash Transfer program was being implemented. The selection of households to participate in the survey involved systematic random sampling using a sampling list that was already available for each district.

¹A group of villages with similar geographical radius and socio-economic characteristics

Summary of Findings

- The baseline study showed that more females (1198) were interviewed compared to their male counterpart (319) representing 79% and 21% of the total sample size respectively. This finding reflected the beneficiary household listings used to select households, which also showed a higher proportion of female SCTP beneficiaries compared to their male counterpart. Furthermore, considering the fact that the targeting criteria for the SCTP focuses on the ultra-poor of which the majority are in the female headed households, the findings reflect the targeting process.
- In terms of household headship, results showed that most of the sampled beneficiaries were coming from female-headed households with an overall of 68.3% compared to male-headed households which had an overall percentage of 31.2 %. There were very few cases of child-headed households with only 7 beneficiaries representing 0.5% reporting coming from child-headed households. Mulanje (77.1%) and Mwanza (81.0%) had slightly higher numbers of female-headed households while Mzimba South (54.9%), Mzimba North (58.2%) and Neno (60%) had slightly lower proportions of female-headed households compared to the male-headed households.
- Approximately 72 percent of the SCTP beneficiaries are classified as a 'dependent' (under 18 or over 64 years), yielding a dependency ratio of 2.6. A dependency ratio of 2.6 means that each person in the prime-age group supports approximately three children or elderly persons. The high dependency ratio of the SCTP-eligible sample is not surprising as one of the program's household eligibility criteria is labor constraint, which is precisely aimed at targeting such households.
- In terms of household labor availability, results showed that only 28.1% of the total household members included in the sample were in the active age group (19-64 years), while 15.9% of the sampled members were under 5 years, 32.9% were between 6-18 years and 23.2% were above 64 years old.
- In terms of land holding sizes, the overall mean land holding size was reported as 0.66 ha per household with Mzimba South having the highest average land holdings of 1.06ha per household followed by Mzimba North with an average of 0.94ha per household. Chikwawa and Neno were third with an average land holding size of 0.69ha. Mwanza had the lowest land holding size was from Mulanje with an average of 0.47ha and Zomba with 0.48ha respectively.
- Results indicated that very few households owned major livestock (Cattle, goats, pigs) (29.5%). Similarly, results showed that only 13.2% of the respondents had an income generating activities such as petty trading that was used to source additional income, while only 0.1% had a formal employment.
- The majority of the households owned land (97.6%) as a major asset followed by a hoe (94.9%), a sickle (28.9%), axe (36.1%) and panga knife (28.2%). About 11.7% of the households owned a bicycle as means of transport compared to only 0.3% who owned an oxcart. Significantly, although the Government is promoting treadle pumps to enhance traditional irrigation methods, at the time of the survey, the number of households owning a treadle pump was very small (2.6%).

- The majority of the households (39.4%) across the 7 districts relied on crop production and sale as their primary sources of livelihood. This was a main source of livelihood for about 47.0% and 37.4% of male and female-headed households respectively. This was seconded by those that relied on Cash transfer programme (36.3%) and sales of casual labour (commonly known as ganyu) which was reported by 10.2% of the households.
- The majority of the beneficiaries have suffered climate related shocks for almost 3 years now starting from the flooding in 2015/2016 season which mostly affected households in Nsanje (68.4%), Chikwawa (53.8%) Mulanje (32.1%) and Zomba district (16.2%) and the prolonged dry spell in 2016/2017 season which mostly affected households in Neno (71.4%), Mwanza (63.2%), Zomba (73.5%), Mzimba South (78.3%) and Mzimba North (65.7%) respectively
- On crop diversification, results showed that the majority of households (81.2%) cultivated between two to three crops. This was seconded by those that cultivated between four to six crops (11.8%). Very few households cultivated more than six crops (0.2%) These results demonstrated that overall, there was a high crop diversity in the farming systems of the cash transfer beneficiary households.
- On Crop Diversification Index (CDI) which is an index of concentration and diversity of crops within the farming system, results showed that average diversification index for the sampled households was 0.61 with a standard deviation of 0.17.
- In terms of the average number of months of food deficit in targeted households, results showed that the average number of months of food deficit in the targeted households was 7.6 months with female-headed households having higher food deficit months (7.9 months) compared to their male-headed households counterparts (7.4 months). In terms of the district variances, Nsanje (9.2), Zomba (8.9) and Chikwawa (8.8) had the highest food deficit months compared to the other districts. The lowest number of food deficit months were noted in Mzimba South with only 6.5 months of food deficit.
- On Coping Strategy Index, results showed that the overall CSI for the sampled households was 17.20. The average CSI did not vary significantly among the seven districts surveyed with Neno having the highest CSI of (23.38) followed by Mulanje with a CSI 18.17. The lowest CSI was reported in Mzimba South and Mzimba North due to a slightly better harvest last season than the other 5 districts.
- On dietary diversity, result showed that the overall average HDDS was 4.4. There was a higher HDD in male-headed households (4.6) compared to female-headed households (4.3) although the difference was not significant. In terms of the district specific HDDS, results further showed that Mzimba South (4.8) had a highest HDDS compared to the other districts and was followed by both Mzimba North (4.7) and Nsanje (4.7) respectively. The lowest HDDS was recorded in Mulanje at only 4.0
- In terms of the MAD, results further showed that only 43.0% of the children were meeting the minimum acceptable meal frequency and only 20.9% were meeting the minimum dietary diversity. In terms of the percentage of children meeting the minimum acceptable diet (MAD), results showed that only 8.1% of the children 6-23 were meeting the MAD
- On BMI, the prevalence of underweight among women of reproductive age result showed that 10.5% of the women were underweight while the majority (62.9%) of women

interviewed was within the normal range of BMI. Over 18.6% and 9.1% were classified as overweight and obese respectively

- In terms of the individual soil and water conservation, results showed that the most commonly adopted soil and water conservation technologies were box ridges which was reported by 36.7% of all the respondents. This was followed by contour ploughing (27.5%), mulching (24.2%) and pit planting (17.1%) and zero tillage (14.2%).
- In terms of knowledge of three strategies to enhance individual and community resilience in the communities, results showed that only 21.9% of the beneficiaries had knowledge on three strategies to enhance individual and community resilience while about 78.1% of the beneficiaries did not have knowledge of three strategies of enhancing individual and community resilience to climate related disasters. In terms of the gender differentials, a higher percentage of male-headed households (22.2%) were knowledgeable compared to the female-headed households (21.9%)
- On early Warning systems, results showed that there was a small base of indigenous early warning signs for forecasting climatic hazards used to make necessary livelihood adjustments. Over 87.1% of the SCTP beneficiaries were using indigenous early warning systems. This was followed by those that were using radios (37.2%) as a means for getting information on early warning. There were very few cases of knowledge and use of scientific early warning systems mainly Mini weather station (5.1%), cellphones (5.0%), rain gauges (2.6%), river gauge (1.2%), and hydrometric equipment (0.2%)
- On institutional setup for the cash transfer programme, results showed that virtually all the seven districts had functioning district and community social support committees which were trained in the management of the programme including start of the programme in beneficiary targeting and handling of cases emanating from the implementation. These structures represent the coordination mechanism of the Malawi Social Support Programme at district and community level. Although they are existent at district level, results showed that the District Social Support Committee do not meet frequently due to funding. At community level, the community social support committees are available and active in working with the cash transfer beneficiaries

Recommendations for Programming

- Since most of the programme beneficiaries were coming from female-headed households, there should be a deliberate attempt to design activities that will superficially target these female-headed households who are in the majority in order to build their long term resilience.
- Since the results showed that there was still a lower ownership of productive assets and livestock, the PRO-Resilience programme should make a deliberate effort to sensitize the cash transfer beneficiaries to invest some of their income into these productive assets to achieve long-term resilience
- Since crop production sales remained a significant source of livelihood for some of the beneficiaries, deliberate attempt should be made by the programme to support these beneficiaries in agricultural production inputs such as fertilizer and improved seed in order to realize higher yields.

- Considering the frequency and severity of climate related shocks and vulnerability experienced in these areas, it is recommended that a deliberate attempt should be made by the project to sensitize the beneficiaries on these shocks and vulnerabilities as well as devise strategies to mitigate them.
- Considering the higher number of months of food deficit which will potentially affect household food security, it is recommended that deliberate measures should be taken by the consortium to either provide cash top-ups directly to the beneficiaries during these food deficit months to support the beneficiaries' access basic food commodities.
- Considering the low levels of knowledge of scientific early warning systems and very little documentation of the indigenous early warning system, the study recommends that the programme should facilitate further in-depth study of the indigenous early warning systems existing in the project impact areas and document them so as to enhance disaster mitigation programming. There also need to for the programme to implement interventions that will link the social cash transfer households to scientific Early Warning Systems as part of the DRR approach in the project.
- Considering the higher dependency on maize as staple food, which is prone to climate related shocks, the study recommends food diversification at household level through production of other equally important staple foods such as cassava and sweet potato in districts such as Mulanje, Zomba, Mzimba, Mwanza and Neno while other equally consumed foods such as millet and sorghum can be promoted in districts such as Chikwawa and Nsanje to supplement households starch needs.
- Considering the challenges related to coordination of the social protection issues at national and district level, the study recommends that there should be a deliberate effort towards promoting improved coordination between different stakeholders in the sector. Various entities needs to collaboration to work together in order to attain one goal while sharing the lessons learnt and best practices in social protection programming. This will require mapping out roles and responsibilities for key actors, articulating areas of focus and establishing regular coordination meetings to devise action plan and share feedback.

1.0 BACKGROUND OF THE STUDY

Christian Aid and United Purpose are leading separate consortia implementing the Pro-Resilience Action (ProACT) programme with funding from the European Union. The Christian Aid-led consortium comprises of Christian Aid, Synod of Livingstonia Development Programme, (SOLDEV), Eagles Relief and CARE Malawi is implementing the programme under the name “**Linking Communities under Social Protection to Resilience (MLUMIKIZI)**” in Mwanza, Neno, Chikwawa and Mzimba districts while the United Purpose-led Consortium comprises of United Purpose, Save the Children and Concern Worldwide is implementing the same programme under the name “**Food and Nutrition for Resilience(FUTURE)**” in Nsanje, Mulanje and Zomba. The programme aims to address existing food and nutrition security challenges among the poorest households in these seven districts by increasing their resilience to climate-related stresses and shocks. The project will support interventions that foster great resilience to climatic shocks and diversification of livelihoods for vulnerable households by creating synergies with the existing support to Social Cash Transfer Programme (SCTP).

The action would lay the foundation for future EU programming in Malawi by delivering a package of interventions designed to break the cycle of food and nutrition insecurity in Malawi, creating direct synergies with the Government’s National Social Support Programme (NSSP) and linkages with resilience building initiatives, approaches and players. Furthermore, the project would also support non-justice related activities that would assist the prisoners in the impact districts to access basic public services and facilitate utilization of their skills in backyard farming activities to supplement daily dietary requirement.

It was with this background that Christian Aid Malawi and United Purpose jointly commissioned the baseline study for the programme. The assessment was required to establish and verify baseline indicators related to the current food and nutritional status of the project beneficiaries and their ability to respond to climatic shocks. The baseline assessment was also meant to help in establishing a benchmark against which outcome results would be measured towards the end of the project.

1.1 Overall objective of the baseline study

The overall objective of the assignment was to carry out a baseline study for the “**Pro-ACT programme**” in order to determine the pre-project situation against major project indicators. This would provide a benchmark on which to formulate project targets and a basis for analyzing project progress and achievements during and after implementation. The study was expected to collect information related to food security and nutritional status of households, household economic information, agricultural practices, institutional capacity of disaster reduction players, existing income-generating activities (all sex disaggregated). In addition, the consultants were expected to undertake an in depth qualitative study to identify opportunities and socioeconomic undercurrents constraining the poorest households in Malawi to attain food and nutrition security.

1.2 Specific objectives of the assignment

The baseline was undertaken with the following specific objectives:

1. Establish quantitative values for ProACT indicators
2. Provide qualitative analysis of the values of major indicators
3. Identify opportunities and constraints in achieving the programme objectives to ensure the project is implemented efficiently and effectively
4. Assess practicality of the implementation arrangements

The baseline was conducted in the 7 districts of the country where partner's organizations were expected to implement activities. Based on the geographical coverage of each consortium, the baseline was conducted in Nsanje, Zomba and Mulanje under the United Purpose led consortium and in Chikwawa, Mwanza, Neno, Mzimba North and Mzimba South under the Christian Aid led consortium as depicted in Figure 1 below:

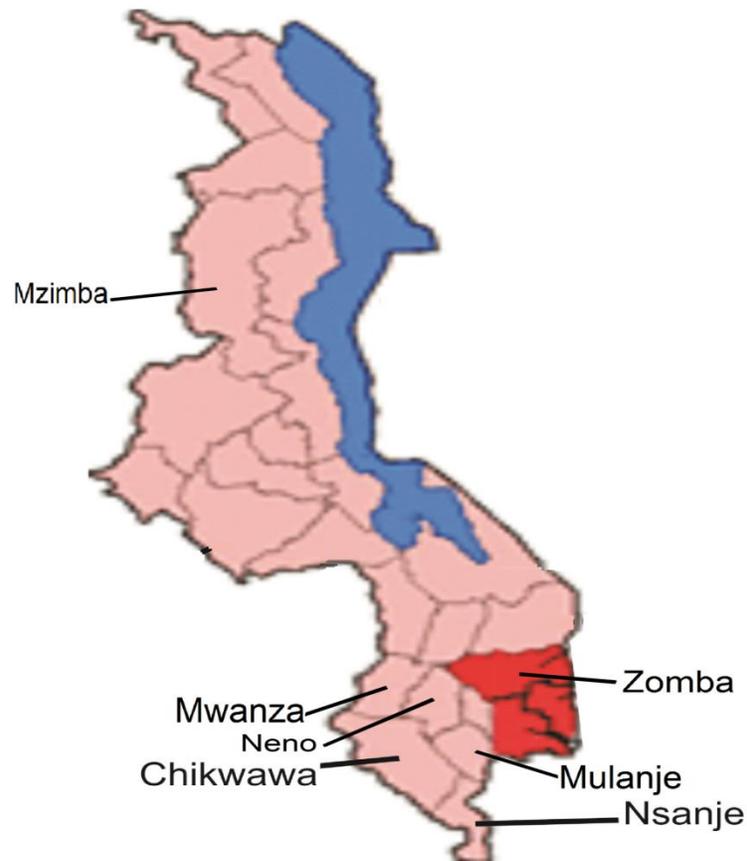


Figure 1: Map of Malawi showing study Districts

2.0 PROGRAMME CONTEXT

2.1 Overview of the shock-responsive social protection and resilience

Malawi faces recurrent cyclical crises that prevent long-term poverty reduction. The causes of these crises are complex and diverse. On one hand, the country's high exposure to climate risks— primarily arising from hazards such as dry spells, drought and flooding – results in frequent shocks and emergencies. However, this problem is compounded by underlying household vulnerability tied to food insecurity and seasonal patterns of production and consumption that exacerbate the impacts of large, covariate shocks. Hence, a significant proportion of Malawi's humanitarian needs originate from largely predictable patterns, including normal seasonal variations in weather.

Although investment in social protection has increased significantly over the last decade – largely driven by donor funding – and certain programmes are showing important impacts on poverty and food security, the current social protection approach as a whole does not yet sufficiently achieve its core goals of reducing household vulnerability to poverty and food insecurity, and increasing resilience and livelihoods at scale. While it is important to recognize that social protection alone cannot address all the factors that create food insecurity and emergencies in Malawi, the effectiveness of social protection could be improved to minimize the impact of seasonal exposure as well as of large shocks to households. The action is designed to provide that link between social safety nets provided by government and the long term resilience building of beneficiaries through multiple interventions in food, nutrition and disaster risk mitigation and response.

2.2 Targeting process for the social cash transfer support programme

According to the Social Cash Transfer Targeting Manual (2014), the targeting process comprises all the operations required to identify households and determine eligibility including planning, training, data collection, entry and analysis. More specifically, the targeting process comprises steps that include sensitizations of all stakeholders at district level about the program and its activities. An initial community meeting intended to inform the communities and their leaders about the program and its methodologies of implementation is held in order to get their cooperation. Upon completion of this meeting, a logistic Plan is prepared with the intention of obtaining and moving resources in a timely fashion to the locations where they are needed.

A Training Process then follows which serves as a tool to build capacity amongst the stakeholders and to prepare them for their tasks and activities during the targeting process. Data is then collected on households through a specifically designed form (electronic or paper-based) and related activities such as the packaging, labelling and submission of paper forms to the DSCTPS. Upon delivery, paper forms are classified, filed, and properly labelled. Upon completion of this process, the final lists of households are approved in the DSSC meeting and the 10% selection is made. The final results (selected households and transfer amounts) are presented to the communities in the final community meeting and the beneficiary households are officially enrolled into the program.

An eligible household must meet eligibility criteria such as an “Ultra poor” household- identified by the CSSC targeting members whose household has on average only one meal per day; and/or household survives from begging; and/or a household is undernourished; and/or the household does not possess any valuable assets; and/or the household does not receive any monetary help, food, or gifts from others. The households interviewed in this study are assumed that they underwent this targeting process in order to qualify as recipients of the cash transfer programme.

3.0 METHODOLOGY

3.1 Mixed methods approach

The baseline survey was conducted in 3 phases mainly using the mixed methods approach where a number of complementary qualitative and quantitative data collection tools were developed to assist in addressing the baseline study objectives. The data collection exercise started with a desk review of project documents. The review was done to inform the data collection approaches in the field as well as the design of the research tools. The desk review was then supported by other data collection methods/techniques that included in-depth key informant interviews, household surveys, case studies and focus group discussions. Site visits and observations were also used to obtain information from project sites and beneficiaries. Throughout the baseline survey process, the consultants emphasized on being inclusive and as participatory as possible, using a balance of both qualitative and quantitative methods. The two methods complemented each other to ensure validity and triangulation.

3.2 Entry meetings with stakeholders

Entry Meetings were held with Christian Aid and United Purpose consortium PMU as well as implementing partners namely CARE Malawi, Save the Children, Concern Worldwide and Synod of Livingstonia Development Programme. For Eagles, the entry meetings were only done with district staff prior to the commencement of this exercise. The entry meetings brought together all project stakeholders to:-

- i. Share and attain same understanding on the principal objectives of the baseline survey including collection of project reports and publications;
- ii. Finalize contractual obligations on both sides
- iii. Agree on the work plan, timing and resources for the study

Similarly, meetings were held with District programme staff from all the participating NGOs before the start of data collection to discuss the aim of the survey, the survey procedures to get their buy in and support for the exercise. The major output from these meetings was a production of an inception report that clearly stipulated the methodology, tools and work plan for completion of the study.

3.3 Desk research and document analysis

Upon submission of the inception report, the study team went through all the project documents and other relevant documentation provided by Christian Aid/United Purpose during the initial meetings. The desk research exercise was done to assist in collecting secondary information related to the study. The activity involved conducting reviews of relevant project documents which included among others the project proposal, results framework, logframe and other relevant government reports. In addition to the literature provided by Christian Aid and United Purpose, the study team also conducted their own detailed review of other publications including the following:

- Integrated Household Survey (IHS 4);
- Project Proposal Document

- Monitoring, Evaluation and Learning (MEAL) Plan²
- District Socio-economic Profile (7 District Councils)

The review of diverse project documents ensured that the study achieved immense content validity as well as informed the width and breadth of the assessment. The major output from this exercise was the submission of the data collection tools that were developed from this process

3.4 Data collection process

In view of the specific objectives of the study, the study used four key methods of data collection namely **households structured survey, focus group discussions (FGDs), Key Informant Interviews (KIIs) and Observations/Case Studies**. This meant that both quantitative and qualitative data were collected during the study. The combination of the methods enabled the study team to achieve triangulation of the results for reliability.

Quantitative data was collected using a structured household questionnaire that was developed and administered to randomly selected beneficiary households in the sampled communities within the 7 implementation districts. The household survey was administered by the consultants with support from a team of well-trained enumerators that were recruited and trained for this assessment. Qualitative assessments were mainly done through the use of Focus Group Discussions, Key Informant Interviews, Case Studies and Field Observation. Detailed tools employed during the data collection exercise are outlined in Figure 2.

²Reference was made to the ProACT Logframe as outlined in the programme document

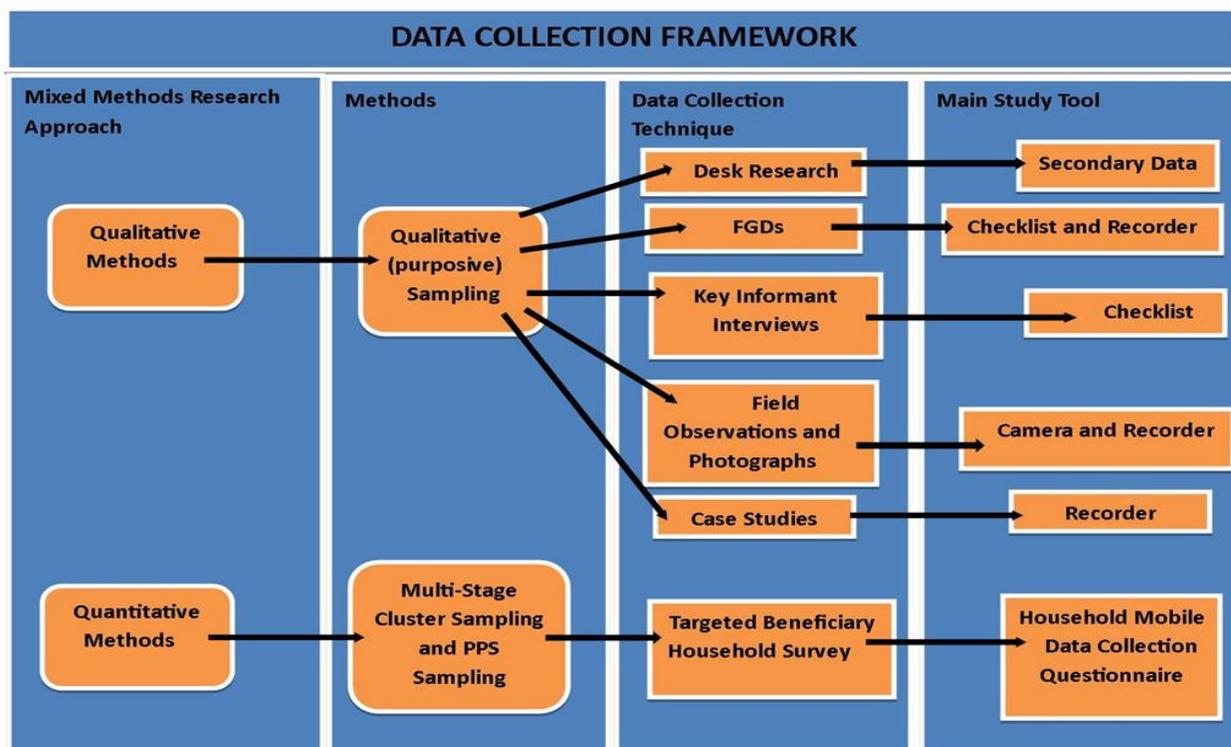


Figure 2: Data collection process framework

3.4.1 Household survey

The study used a content validated structured household questionnaire as a tool for collecting quantitative data for the baseline exercise. The questionnaire was discussed extensively with Christian Aid and United Purpose to ensure that the contents were applicable to the needs of the programme as well as the indicators outlined in the logframe. The questionnaire was pre-tested in Lilongwe at Chitseka village which was not sampled for the interviews but was also involved in the social cash transfer programme. Any challenges encountered with the instrument was discussed and corrected where necessary.

In order to capture the indicator on **Body Mass Index**³ for women, a sub-sample of 423 women of reproductive age⁴ had their weight and height measured using standard procedures. These women were already part of the selected cash transfer beneficiary households that were between 15 to 49 years of age. Height boards and tape measures were used to measure the height of the women while electronic weighing scales were used to measure their weight. Enumerators were trained to accurately measure the height as well as the weight of these women. This included ensuring that the scale were working properly before taking the

³This is the measurement of whether someone is over- or underweight calculated by dividing their weight in kilograms by the square of their height in meters.

⁴Women of reproductive ages are those between 15 -49 years

measurements, cross-checking the data collected using two or more scales to ensure reliability of the data.

The household questionnaire was uploaded on electronic gadgets (tablets) in order to collect the data electronically. The consultants used KOBO Software to collect the data. The study Statistician and Data Management Specialist carefully authored the mobile data collection XLS file which was deployed in the tablets/mobile devices. The XLS Forms were carefully validated to ensure precision and highest accuracy of data collected as well as appropriate logic, restrictions, internal triangulations were applied.

A total of 18 enumerators including 2 supervisors and 2 data editors were recruited to assist in the data collection. All the survey assistants underwent training for 3 days in Lilongwe and were required to participate in pretesting of electronic data collection using the KOBO Software. The Chichewa translation of each question was also reviewed to ensure appropriate translation. In addition, enumerators were trained on human subjects' protection, and interviewing techniques. Hard copy questionnaires were provided to all enumerators and supervisors to assist in learning the different survey modules. Training also included daily role plays and tablet practice, as well as a field practice in Chitseka village, Lilongwe during which each candidate was required to complete at least one practice interview.

3.4.2 Sampling techniques

The consultants used a multi-stage cluster sampling technique to select the households from the 7 districts of Mwanza, Nsanje, Zomba, Mulanje, Chikwawa, Mzimba and Neno respectively to participate in the household survey. The first stage involved a purposive sampling of the districts which were basically the implementing districts of the programme. During the second stage, the team used cluster sampling to select the social cash transfer clusters which were actually located within the Group Village Headmen (GVHs)⁵ to participate in the survey. These GVHs were also the ones in which the Social Cash Transfer program was being implemented. There were variations in the number of Clusters⁶ (GVHs) selected to participate in the survey in each district.

The third stage then involved use of systematic sampling technique to select the participating beneficiaries across the selected districts. The team obtained a list of social cash transfer households for the selected districts and clusters for all the targeted 7 districts which was used to select the participating households. The selection of households to participate in the survey involved use of systematic random sampling using a household listing that was already available for each district. The households were booked in advance for each day so that they prepare in order to increase the chances of finding them.

The team used the beneficiary list provided by the consortium to select households which was accurate and had up to date beneficiary information in line with the situation on the ground. It

⁵A group of villages with similar geographical and socio-economic characteristics

⁶Some districts have more clusters than others and therefore had to be taken into consideration.

was also noted that for Christian Aid-led consortium, the programme team had updated their beneficiary list to ensure the most accurate database for the survey and implementation.

3.4.3 Sample Size

Since the baseline adopted a multi-stage cluster sampling and use of Probability Proportional to Size Sampling Size for the allocation of beneficiaries per district, the survey team used the Power Analysis Software (PASS) to calculate the sample size for the study. In order to do this, the team considered the two consortia as cluster 1 and then districts as a second layer of sampling. Allocation of beneficiaries for each district was made to the size of the district population targeted for Social Cash Transfer to ensure an equitable number of beneficiaries.

The power analysis formula was calculated at 95 % confidence interval and the statistical power in this case valued at 80% and the design effect of 3 since the sampling method is not a simple random method. Using the online Power Analysis Sample Size (PASS)⁷ Software formula for calculation of the sample size, an estimated sample size of around 1475 was obtained, however, the final sample was discussed with the 2 consortia for appropriateness and cost-effectiveness. **Table 1** summarizes the sample sizes and the number of clusters per district visited. Due to challenges in getting sampled households for interviews in the district, enumerators were requested to make replacement in the event non response or absence of the household head or spouse. Due to pressure of work as well as inability to follow the required number of beneficiaries per cluster per district, there were incidences of enumerators who over-sampled the beneficiaries and only discovered during analysis that the targeted figures had been exceeded per cluster.

Table 1: Summary of clusters and sample beneficiaries per district

District	Implementing Partner	Sample size per district	Sampled Clusters	Beneficiaries interviewed
NSANJE	Concern Worldwide	117	6	118
CHIKWAWA	Christian Aid/Eagles Relief	247	13	239
MWANZA	CARE Malawi	75	4	84
NENO	CARE Malawi	82	4	95
MULANJE	United Purpose/CWW	265	13	280
ZOMBA	Save The Children	332	13	336
MZIMBA NORTH	SOLDEV	132	8	133

⁷Link to the PASS Software Formula - : <http://www.surveysystem.com/sscalc.htm>

MZIMBA SOUTH	CARE MALAWI	221	9	232
BMI (Women)				423
TOTAL		1475	70	1517

3.5 Qualitative Data Collection

3.5.1 Key Informant Interviews

Key Informant interviews involved interviewing both key district level stakeholders such as the District Social Welfare Officers, District Agriculture Development Officers (DADO), District Crops Officers and District Disaster Management Officers as well as community-level key informants who are the focal point persons on food security and climate change issues in the targeted districts to give their views on how the cash transfer beneficiaries were being affected and adapting to climate change risks and hazards. The consultants developed a checklist of questions which guided the discussion with stakeholders in each of the targeted districts. The checklist was shared with Christian Aid and United Purpose prior to being administered to ensure clarity of questions. The study team worked with the project collaborators in the districts to provide support in identifying the venues for discussion and mobilize the required persons for interviews. **Table 2** provides details of the Key Informants interviewed.

Table 2: List of Key informants interviewed at District and community levels

District level Stakeholder	Community-level stakeholders
District Agriculture Development Officer	Agriculture Extension Development Coordinator
District Crop Development Officer (DCO)	Village Development Committee
District Social Welfare Officers (Representing District Social Support Committees)	Agriculture Extension Development Officer (AEDO)
Christian Aid, SOLDEV, CARE, Eagles Relief, Save the Children; United Purpose, Concern Worldwide	Village Natural Resources Management Committees (VNRMC)
Director of Planning and Development	Village Civil Protection Committees
District Disaster Management Officers	Area Development Committee Chairperson
Other Non-Governmental Organizations (NGOs) – World Vision, CARD	Traditional and Religious Leaders
District Civil Protection Committees (DCPC)	Community Based Social Support Committees

3.5.2 Focus Group Discussions

Focus group discussions (FGD) were also conducted to help in the assessment of community knowledge, attitudes and practices related to baseline study questions for the programme. A focus group discussions guide was developed and discussed during the training for clarity and comprehensiveness. The focus group guide was also pre-tested in the same village Chitseka in

Lilongwe district prior to being used and observed errors and challenges were identified and corrected. Voice recordings and photographic pictures were also captured. To ensure issues of gender relations were included, the FGDs were designed to be gender balanced with an equal representation of women and men who are on social cash transfer in each of the targeted districts. A total of 3 FGDs were conducted in Nsanje, Zomba, Chikwawa, Mulanje, Mwanza and Neno districts while Mzimba North and South had a total of 5 FGDs making a total of 23 FGDs conducted with the social cash transfer beneficiaries across the 7 districts. In terms of Key Informant Interviews, a total of 15 community Key Informant Interviews were conducted which provided rich qualitative information related to vulnerability and food security issues for linking cash transfer beneficiaries to resilience programming

3.5.3 Direct observations

Field observations were also undertaken to confirm or triangulate the information given through the questionnaire survey, recordings and photographic pictures. The field observations happened concurrently with the collection of other information from the respondents. Enumerators were trained on how they can conduct field observations and capture pictures of structures and fields in order to demonstrate what was on the ground in the targeted districts.

3.6 Data analysis and report writing

The supervisors reviewed each enumerator's completed surveys, finalized them and back up on the enumerator's tablets by making a copy on the tablet itself, and also transferred a copy from the enumerator's tablet to their own (supervisor's) tablet. Supervisors transmitted the completed surveys to the server whenever they had Internet access. Once transferred, data was stored on a secure server. When data collection was complete, tablets were returned to owners, checked for completeness of data delivery, and cleared of all survey data.

Data collected was analyzed in SPSS Version 21.0. Some analysis was also conducted in MS Excel and Stata. Quantitative analysis has mainly involved frequencies and percentages. The analysis was also presented using tables, graphs and other tools to increase the impact and readability of the report. Cross-tabulation and chi-square test was used to determine the association of variables. Statistical significance was accepted at $p < 0.05$.

The qualitative data was analyzed through thematic analyses of the issues emanating from the key informant interviews and focus group discussions. In addition to the above, the baseline study also used secondary data as well as socioeconomic profile data already available with the implementing partners, relevant government departments at district level.

3.7 Ethical considerations

The study team made sure that ethical considerations were adhered to during the baseline study. Before each interview, either at household and FGDs, there was a brief introduction about the purpose of the study and seeking consent from the survey participants. Participants were also assured on confidentiality that the information which was being collected was only going to be used for the purposes of the survey and nothing more. Interviewers were also trained to be neutral and respect all the respondents' dignity and culture.

3.8 Study limitations and challenges

Although the team managed to conduct all the targeted interviews and collected all the data required for this baseline, there were several challenges that were encountered during the study as follows:

1. Issues of allowances for the community key informants invited for the interviews. It was discovered that key informants invited for interviews expected some form of payment in terms of lunch allowances for their participation in the study which was not in tandem with good practices of data collection. At some point, it became clear that the issue would compromise the participation of some informants in the process. The study team reserved some resources to support lunch for 2 people from the Social Support Committee (Chair/Member), ADC chair if present, and the Agriculture extension officer.
2. Scheduling for interviews in some districts was a challenge as the field team booked the beneficiaries at the same time as such did not allow for adequate time in between clusters to take care of travel time from one cluster to the next one. For instance, there were cases where district team had only allocated about 30minutes in between clusters and realistically, this was not sufficient to cater for both the interview time (approx. 40min per questionnaire) and the travel time from one cluster to the next. We wish to propose an average of about 1.5hours booking time between one cluster to the next.
3. Due to the nature of the study, most of the social cash transfer beneficiaries were located in areas that could be classified as Hard-To-Reach areas and depending on the geographical spread and terrain of the households, the team was able to visit the beneficiaries in their homes. In the event that the households were spread very far apart and the terrain could not allow for a household visit, the beneficiaries were mobilized within their Zones for ease of interviewing within their clusters. This, however, meant that the research assistants could not verify some of the data reported through personal observations.
4. Delays between submission of the baseline inception report and provision of resources for field work also affected the commencement schedules agreed during the inception report although the team did its best to collect the data within the agreed times. However, due to the volume of data collected, there was a slight delay in the submission of the draft report and the conclusion of the assignment.

4.0 RESULTS AND DISCUSSION

4.1 Sex and household headship of social cash transfer beneficiaries

The baseline study managed to reach a total of 1517 households which were sampled from the SCTP beneficiary list that was available for each of the 7 districts. In terms of the gender of the respondents results showed that more females (79%) were interviewed compared to their male counterpart (21%) of the total sample size (refer to **table 3**). This finding reflected the beneficiary household listings used to select households, which also showed a higher proportion of female SCTP beneficiaries compared to their male counterpart. Furthermore, considering the fact that the targeting criteria for the SCTP focuses on the ultra-poor of which the majority are in the female headed households, the findings reflect the accuracy of the targeting process. This result is similar to the findings of the Malawi Cash Transfer Baseline Study (2014) where the majority of respondents were also female (57.3 percent).

Table 3: Distribution of respondents by gender and household headship

District	Sex of respondent		Household headship		
	Male	Female	MHH	FHH	CHH
Nsanje	27 (22.8%)	91 (77.2%)	34 (28.8%)	84 (71.2%)	-
Chikwawa	59 (24.6%)	180 (75.4%)	82 (34.3%)	157 (65.7%)	-
Mwanza	11 (13.1%)	73 (86.9%)	16 (19.0%)	68 (81.0%)	-
Neno	21 (22.1%)	74 (77.9%)	37 (38.9%)	57 (60.0%)	1 (1.1%)
Mulanje	32 (11.4%)	248 (88.6%)	63 (22.5%)	216 (77.1%)	1 (0.4%)
Zomba	50 (14.9%)	286 (85.1%)	89 (26.5%)	247 (73.5%)	-
Mzimba North	42 (31.5%)	91 (68.5%)	56 (41.4%)	73 (58.2%)	1 (0.4%)
Mzimba South	77 (33.2%)	155 (66.8%)	96 (42.1%)	135 (54.9%)	4 (3.0%)
TOTAL	319 (21%)	1198 (79%)	473 (31.2%)	1037 (68.3%)	7 (0.5%)

In terms of household headship, results showed that most of the sampled respondents were coming from female-headed households with an overall of 68.3% compared to male-headed households which had an overall percentage of 31.2 %. Mulanje (77.1%) and Mwanza (81.0%) had slightly higher numbers of female-headed households while Mzimba South (54.9%), Mzimba North (58.2%) and Neno (60%) had slightly lower proportions of female-headed households compared to the male-headed households as shown in Table 2 above. Across the seven districts, there were very few cases of child-headed households in the total sampled households. Only 7 beneficiaries representing 0.5% were coming from Child-headed households. The presence of more female-headed households as beneficiaries can be commended as studies have shown that they are more vulnerable than male-headed households to many shocks and risks.

4.2 Socio-economic and demographic status

On socioeconomic and demographic characteristics of the SCTP beneficiaries, results were presented for the literacy levels, average age, marital status, household size, dependency ratio, social vulnerability and economic status of the households. Results showed that the majority (69%) of the social cash transfer beneficiaries were illiterate and not able to read and write (**Table 4**). However, higher levels of literacy were only observed in Neno, Mzimba North and Mzimba South with about 49.2%, 47.8% and 45.5% of the respondents being able to read and write respectively. The least number of literate social cash transfer beneficiaries was observed in Mwanza and Chikwawa where only 18.3% and 18.9% were found to be able to read and write. The high levels of illiteracy in these districts means that the PRO-ACT consortium will need to develop a variety of communication strategies adapted to low and non-literate audiences if the programme is to achieve its objectives.

Similarly, results showed that the majority of the beneficiaries were widowed with over half of the respondents (56.9%) reporting being widowed.. Although the majority of the social cash transfer beneficiaries were widowed, there was also a good number of beneficiaries that were married (26.9%) followed by those divorced (10.8%) and lastly those that were single (2.1%). On household size, the average household size was 5.3 persons and this varied slightly across the 7 districts with Mzimba South having the highest average of 5.76 persons followed by Mzimba North with 5.7 persons and the least being Chikwawa district with an average of only 4.79 persons per household. These results are consistent with findings from the Malawi Demographic and Health Survey (2016) which found that the national average household size was at 5.

In terms of land holding sizes, the overall mean land holding size was reported as 0.66ha per household with Mzimba South having the highest average land holdings of 1.06ha per household followed by Mzimba North with an average of 0.94ha per household. Chikwawa and Neno were third with an average land holding size of 0.69ha respectively while Mulanje social cash transfer beneficiaries had the least amount of land at 0.47ha per household as shown in **Table 4**. The implications for the lower land holding sizes means that the consortium will have to either promote mixed cropping so that beneficiaries grow different crops for the same piece of land or promote high yielding crop varieties that can yield more per unit area.

Table 4: Household demographic and socio-economic background

Category Description	Nsanje	Chikwawa	Mwana	Neno	Mulanje	Zomba	Mzimba North	Mzimba South	All
% Literacy of HH									
Able to read and write	23.7	18.9	18.3	49.2	25.3	31.9	47.8	45.5	31.0
Marital status of HH (%)									
Married	26.9	27.9	21.1	28.6	16.6	21.5	36.7	43.7	26.9
Divorced	5.4	9.0	11.3	11.1	18.4	15.5	4.4	2.4	10.8
Single	1.1	1.0	2.8	4.8	3.7	2.4	0.0	1.2	2.1
Widowed	65.6	60.2	60.6	52.4	54.8	57.4	57.8	49.7	56.9

Land Holding(Ha)									
Mean Hectare	0.47	0.7	0.6	0.7	0.5	0.5	0.9	1.1	0.7
Age of HH									
Mean of Age (years)	60.6	62.7	63.7	58.2	57.9	61.4	62.7	61.0	60.9
Household size									
Mean Number of HH members	5.4	4.8	3.9	5.41	5.3	5.5	5.7	5.8	5.3

4.3 Dependency ratio and household labour availability

We defined the dependency ratio as the sum of children under 18 and adults 65 and older, divided by the working-age population (19 to 64 years). It indicates the potential effects of changes in population age structures for social and economic development, pointing out broad trends in social support needs. Approximately 72 percent of the SCTP beneficiaries is classified as a 'dependent' (under 18 or over 64 years), yielding a dependency ratio of 2.6. A dependency ratio of 2.6 meant that each person in the prime-age group supports approximately three children or elderly persons. The high dependency ratio of the SCTP-eligible sample is not surprising as one of the program's household eligibility criteria is labor constraint, which is precisely aimed at targeting such households. Compared to the dependency ratio during the IHS4 which was at 1.2, the sampled SCTP beneficiaries had more economically inactive persons for every economically active person. The differences in the dependency ratio between the baseline study and the IHS4 may be attributed to the expectations that beneficiaries had considering the nature of the project. Female-headed households had a higher dependency ratio (2.6) compared to their male-headed households (2.4). In terms of household labor availability, results showed that only 28.1% of the total household members included in the sample were in the active age group (19-64 years), while 15.9% of the sampled members were under 5 years, 32.9% were between 6-18years and 23.2% were above 64 years old.

4.4 Social vulnerability analysis of the beneficiary households

The study showed that about 34.7% of the respondents were hosting chronically ill members while 56.7% were hosting elderly-headed households with an average of 1.2 persons per households and a slightly higher average number of elderly persons in male-headed households than in female headed households. Approximately 39.8% of the sampled households were hosting orphans with an average number of 2.5 orphans per households and a slightly higher average number of orphans (2.6) in female-headed households compared to male-headed households (2.4). Similarly, 22.1% of the households were hosting disabled individuals with male-head households having more disabled (26.6%) than female-headed households (20.1%).

Compared to the IHS4 rural ultra-poor sample, the SCTP has a smaller proportion of households hosting orphans (39.8%), compared to 45.8 percent IHS4), a smaller proportion of households hosting disabled individuals (22.1 percent SCTP, compared to 32.3 percent), and a much larger proportion of elderly people (56.7 percent SCTP, compared to 4 percent IHS4).

Nationally, according to the 2015-16 Demographic and Health Survey, only 4% of the national population is aged 65 years and older. Results further showed that the average number of persons was less than five years in a household with 1.4 depicting almost equal distribution between female-headed and male-headed households while that of 6 to 18 years was 2.9 persons in both male and female headed households. For persons between 19 to 64 years, the average number was 2 while those over 64 years of age was 1 (Refer to **Table 5** below).

Table 5: Household social status and vulnerability indicators

Indicator	Nsanje	Chikwawa	Mwanza	Neno	Mulanje	Zomba	Mzimba North	Mzimba South	All
Hosting disabled	27.1%	19.7%	16.7%	19.1%	21.5%	21.7%	20.9%	27.3%	22.1%
Average # of disabled hh members	1.2	1.1	1.1	1.1	1.0	1.1	1.2	1.1	1.1
Hosting orphans	51.7%	38.1%	33.3%	41.5%	33.3%	40.5%	39.5%	44.2%	39.8%
Average # of orphans in the hh	2.8	2.2	2	2.5	2.6	2.5	2.6	2.7	2.5
Hosting the elderly	63.6%	54.8%	63.1%	55.3%	57.0%	53.0%	63.6%	55.0%	56.8%
Average # of elderly in the hh	1.2	1.1	1.2	1.2	1.2	1.2	1.3	1.2	1.2
Elderly fit for work	40.0%	49.6%	39.6%	32.7%	39.0%	40.4%	37.8%	35.4%	40.0%
Hosting chronically ill	37.3%	30.5%	34.5%	35.1%	34.4%	33.6%	37.2%	37.2%	34.6%
Average # of hh members < 5 years	1.4	1.4	1.2	1.4	1.5	1.4	1.4	1.5	1.4
Average # of hh members 6 to 18 years	2.8	2.6	2.1	3.0	3.2	3.0	3.1	3.0	2.9
Average # of hh members 19 to 64 year	1.9	1.9	1.7	2.1	1.8	2.0	2.2	2.2	2.0
Average # of hh members over 64 years	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.2
Average hh size	5.4	4.8	3.9	5.4	5.3	5.5	5.7	5.8	5.3

4.5 Economic status of the households

On economic criteria, results indicated that very few households owned major livestock (29.5%). Similarly, results showed that only 13.2% of the respondents had an income generating activity that was used to source additional income, while only 0.1% had a formal employment. The majority of the respondents (69.3%) although indicating being labour constrained stated that they were currently depending on ganyu (sale of casual labor) as a coping strategy to cope with food shortages. This may reflect that while the household head may not have been able to do any physical work, they relied on dependants to engage in casual labour to acquire food in cases of dire food shortages. Although the households were benefiting from the cash transfer, most of them expressed dissatisfaction with the amount received as it was not adequate to pay for all the household necessities. This was also expressed in most of the focus group discussions held with the communities in the study areas. In terms of hiring labor, the study found that only 17.2% of the sampled households were hiring labor during period of critical labor shortage. This finding correlated very well with the fact that the majority of the cash transfer beneficiaries were constrained in terms of labour as such were forced to hire additional labor to meet their households needs (Figure 3).

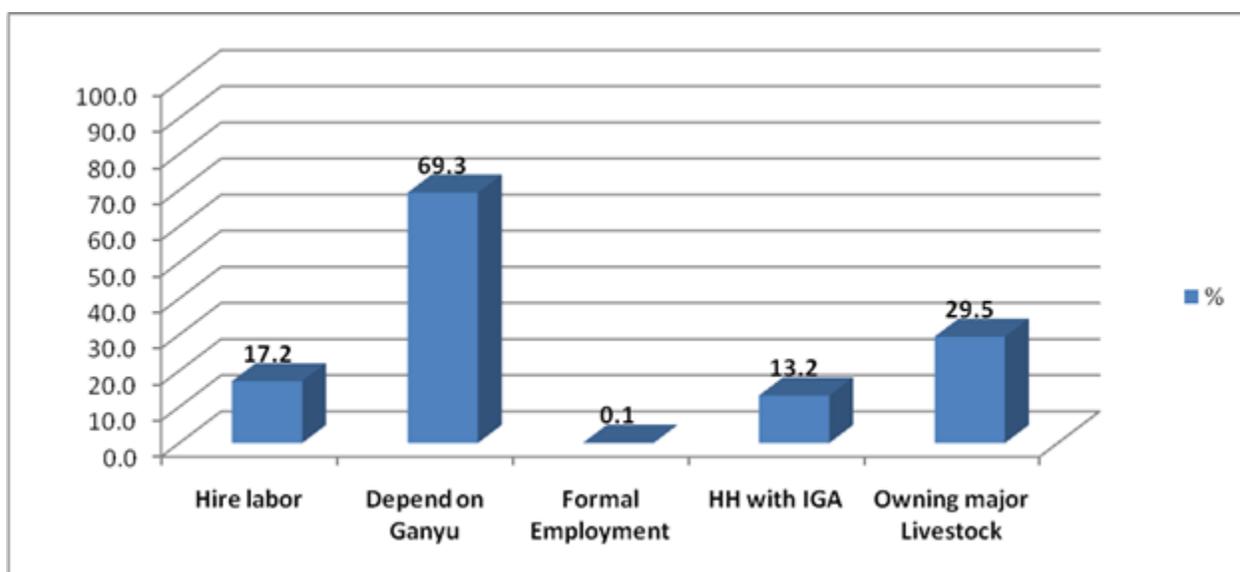


Figure 3: Economic Status of the Household

4.6 School attendance

The baseline survey collected information on school attendance from all household members aged three and above. Results showed that 76.2% of the school-going children were attending school during the time of the study compared to 83 percent in the IHS4 rural ultra-poor sample. This was higher in Zomba (81%) followed by Nsanje (77.1%) and Mulanje (77.1%) compared to the other districts. The lowest school attendance was recorded in Mwanza where only 66.7% of the school going children was attending school. On average, children were absent only for about a day per term and indicated that most children were absent because they were sick (64.7%) or could not pay school fees/uniform (9.9%). Poor school facility did not feature highly

as the main reason why children were absenting from school as only 2.9% reported it (**Table 6** below)

Table 6: School attendance for children within cash transfer households

Category Description	Nsanje	Chikwawa	Mwanza	Neno	Mulanje	Zomba	Mzimba North	Mzimba South	Total
Attending school	77.1	74.9	66.7	75.8	77.1	81.0	73.7	74.1	76.2
Days absent									
Mean Number of Absent Days per Term	0.6	0.6	0.9	1.0	0.5	0.3	0.8	0.4	0.5
Reasons for absenteeism (%)									
Sickness/Han dicapped	53.6	62.2	75	58.1	66.7	76.3	63.3	63.3	64.7
School fees & Uniform	7.1	13.3	0.0	32.3	5.6	7.9	3.3	6.7	9.9
Poor school facility	3.6	2.2	0.0	6.5	5.6	2.6	0.0	0.0	2.9
Other	14.3	17.8	12.5	3.2	13	5.3	23.3	6.7	12.1

4.7 Children referral to NRU

Children referral to NRU is an indicator of serious malnutrition issues at household and community level which could affect school going children concentration in class. Results showed that only 6.7% of the children were referred to NRU across the survey districts over the month prior to the study. Nsanje (7.6%) and Mulanje (7.5%) had the highest number of children referred to NRU while Mwanza had the lowest (6.3%). The fact that very few children were referred to NRUs showed that child malnutrition was not very prevalent in the sampled districts and this also reflected the generally lower levels of absenteeism amongst school going children (**Figure4**). In terms of food security, the results showed that beneficiaries were generally better off in terms of food security and that malnutrition levels had not reached critical levels.

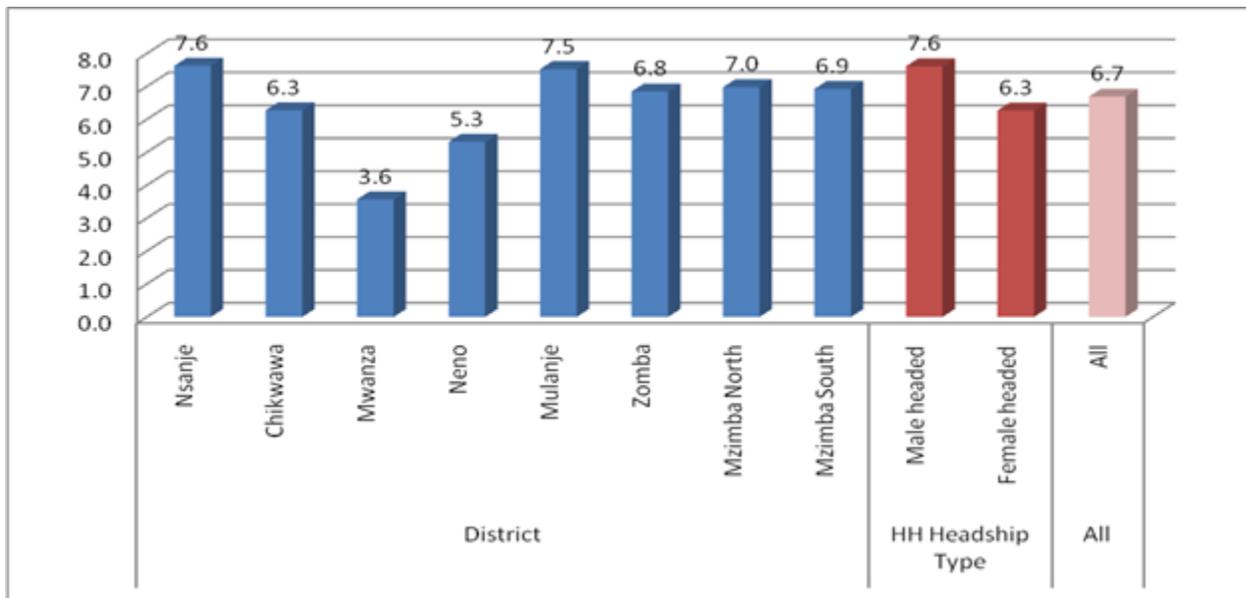


Figure 4: Child Referral to NRC

4.8 Assets ownership

Wealth or socio-economic status is typically measured by collection of income data, consumption data or data on the material assets available to a household. Only data on household asset and their values were collected through the baseline survey and was summarized into three utility based groupings namely productive assets, domestic asset and livestock assets. Productive assets were mainly tools for farming and were owned by more households than any other asset.

In particular, the majority of the households owned land (97.6%) as their major asset followed by a hoe (94.9%). This was also followed by those who owned a sickle (28.9%), axe (36.1%) and panga knife (28.2%) and about 11.7% who owned a bicycles as a means of transport. Significantly, although the use of treadle pump is becoming popular to enhance irrigation

farming, at the time of the survey, only 2.6% of the sampled households actually owned such pumps (Figure 5).

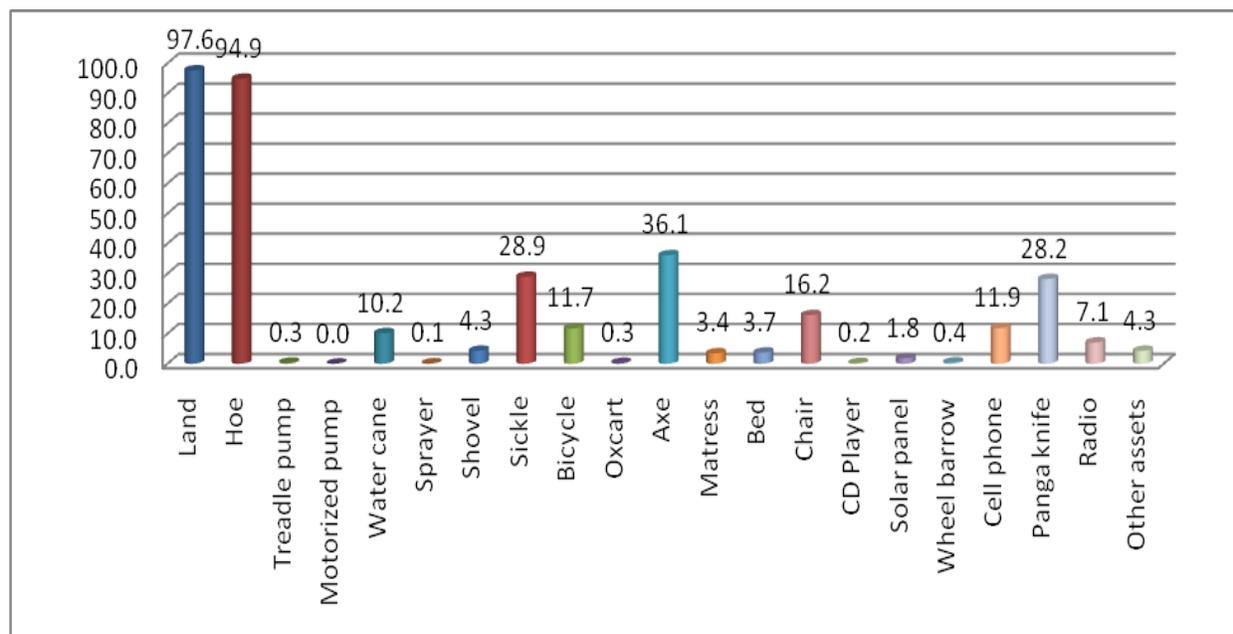


Figure 5: Household asset ownership

In terms of the gender-specific ownership of assets, the major productive assets owned by women included land (99.9%), hoe (97%), Axe (30.0%), Panga Knife (23.9%), Watering cane (7.9%), bicycle (7.0%), Cellphone (8.7%), Radio (3.6%), Shovel (3.0%), and treadle pump (0.2%). For male-headed households, the major productive assets owned included land (98.9%), hoe (96.8%), water cane, axe (52.4%), panda knife (40.2%), (16.5%), sickle (38.7%) and Bicycle (23.3%). There was generally higher level of asset ownership amongst male-headed households compared to the female-headed households across the seven districts (Table 6 below).

Table 6: Household asset ownership

Type of Asset	Male headed	Female headed	Both
Land	98.9%	97.0%	97.6%
Hoe	96.8%	94.0%	94.9%
Treadle pump	0.4%	0.2%	0.3%
Water cane	16.5%	7.3%	10.2%
Sprayer	0.4%	0.0%	0.1%
Shovel	7.4%	2.9%	4.3%

Sickle	38.7%	24.7%	29.1%
Bicycle	23.3%	6.5%	11.7%
Oxcart	0.4%	0.2%	0.3%
Axe	52.4%	28.6%	36.1%
Chair	26.2%	11.6%	16.2%
Solar panel	3.8%	1.0%	1.9%
Cell phone	20.1%	8.1%	11.9%
Panga knife	40.2%	23.0%	28.3%
Radio	14.8%	3.6%	7.1%
Other	4.9%	4.0%	4.2%

However, looking at the means of acquisition of assets, the majority indicated that they had bought the asset with cash represented by 65.2% of the SCTP beneficiary respondents followed by those that acquired through inheritance or given by relative (30.9%), received from NGO/pass on system (2.3%), own initiative/establishment and other means (0.9%).

4.9 Total asset value

Generally, the male headed households had higher asset accumulation for both of the two different types of assets (**table 7 below**). Male headed households owned assets (MK325,704 or Euro 398.17), about 1.9 times as much as the female headed households have (MK174,145 or Euro 240.2). However, both male and female headed households have a lower wealth value for livestock assets (average of MK38, 472 for male-headed households (Euro 47.03) compared to MK24, 136 for female-headed households (Euro 29.50) than in productive assets.

Table 7: Total household asset value by gender of household heads

Asset Category	Male headed	Female headed	Mean asset value (%)
Productive asset	300,083	160,438	88
Livestock asset	38,472	24,136	12
Total mean HH Asset Value	325,704	174,145	

In a typical characteristics of smallholder farming economies, the level of livelihoods vary significantly across different geographical positions. The Pro-resilience baseline survey data

also reflected on such a pattern, showing a variation in household asset value index among the seven project districts. As shown in the **figure 6** below, the household asset value index is higher in Mzimba South and Mzimba North probably due to remittances of assets and cash from South Africa since most household members in these areas have many relations working in South Africa followed by households in Mwanza districts in a descending order. Additionally, the higher asset value index in these 3 districts might also be due to the fact that the three districts have relatively larger farmland sizes compared to the other districts. The higher farmland sizes can be attributed to the low population densities in the northern region.

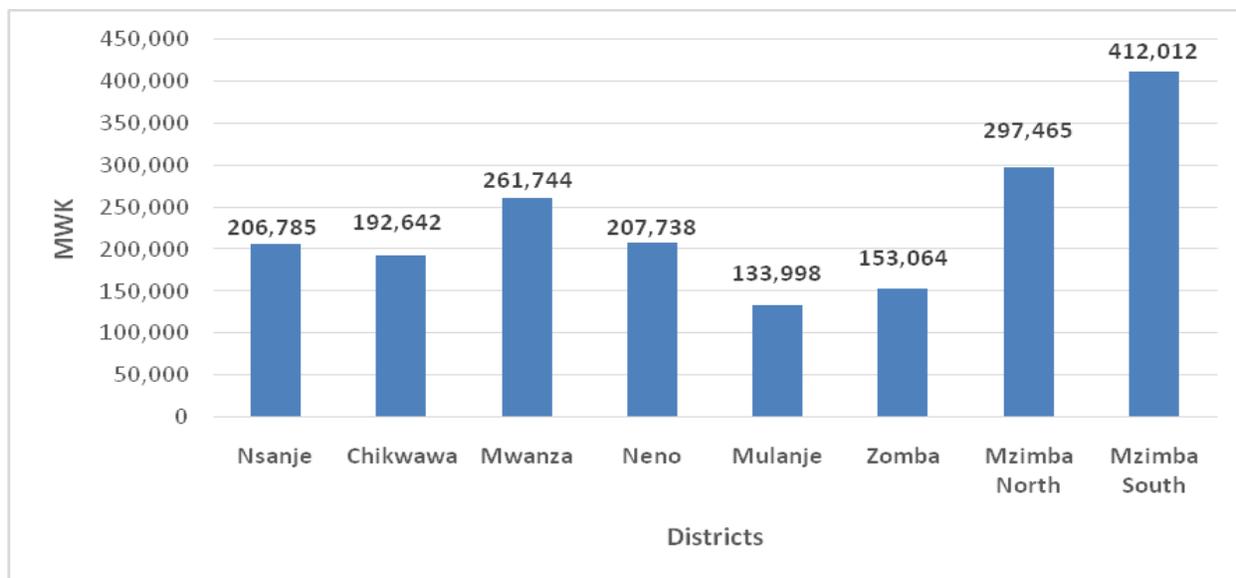


Figure 6: Total Mean Household Asset Value

4.10 Livelihood strategies in rural areas

Rural households remain heavily dependent on crop production to provide for their livelihood needs although to various degrees depending upon their livelihood wealth category. The largest proportion of households interviewed was engaged in farming as a primary livelihood activity with Nsanje, Chikwawa, Mzimba, Mwanza, Neno, Mulanje, and Zomba beneficiaries strongly expressing it. Agropastoralism was also practised activity in all districts, with the largest proportion of households reported in Zomba and Mzimba. As in most places in southern region, land is a limiting factor and households generally do not raise large stock such as cattle except for Nsanje and Chikwawa. Households that are engaged in livestock production raise small stock such as goats and chickens. Households in these districts also derived their main livelihoods from trading and wage labour activities.

Based on data from the household interviews, the majority of the households across the 7 districts relied on crop production and sale as their primary sources of livelihood. This was reported by 47.0% of the male-headed households and 37.4% of the female-headed households. Overall, over 39.4% of the respondents depended on crop production for livelihood. Other sources of livelihood included social cash transfer (36.3%) and casual labour (10.2%) (**Figure 7**below).

When asked about the second source of livelihood, the majority of the respondents indicated cash transfer as the second source of livelihood as they used the cash to purchase other basic households needs such as food, clothes, fertilizer and school fees for children. However, due to smaller amount of cash received, beneficiaries supplemented the cash income with other income generating activities such as ganyu (sale of casual labour) which was like the third most important sources of livelihood as mentioned by 10.2% of the sampled households. However, in terms of ranking the sale of casual labour came third but the beneficiaries still reported that it was one of the most important economic activity particularly with regard to accessing food during the food deficit months of January to March.

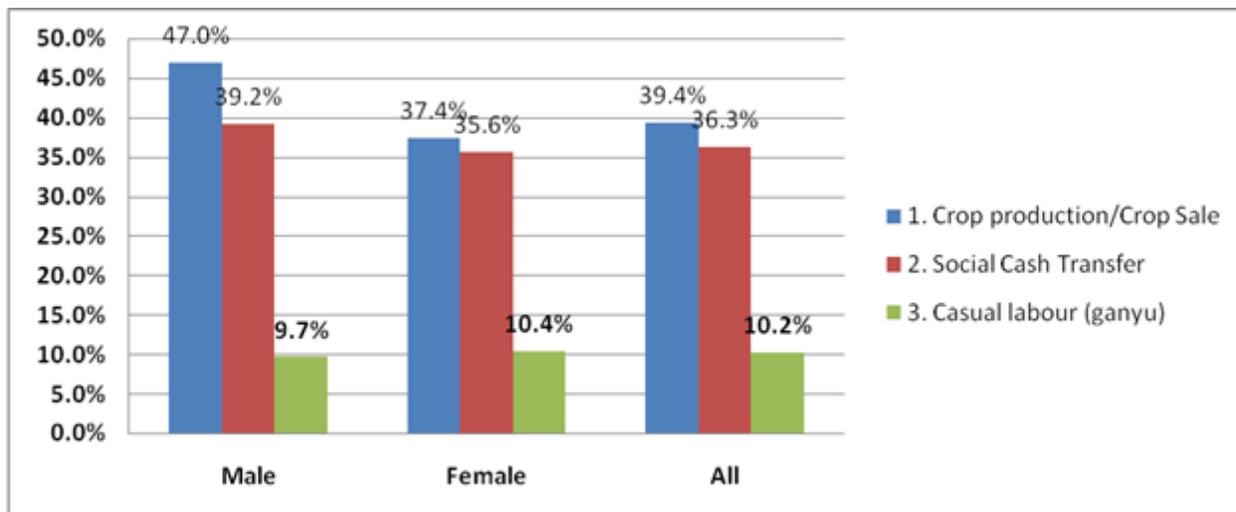


Figure 7: Source of livelihood by order of Importance

On the variety of livelihood sources engaged by households, results showed that all of the respondents had at least one source of livelihood while 91.4% had at least two sources of livelihood. Very few households had more than 3 sources of livelihoods. The study only found 54% of the households that had at least three sources of livelihoods across the seven districts (**Figure 8** below).

On livelihood changes over the 3 years, the majority (67.6%) had experienced livelihood changes (positive or negative) over the past 3 years with more female-headed households (33.8%) experiencing this than male-headed households (29.8%) (**Figure 9** below).

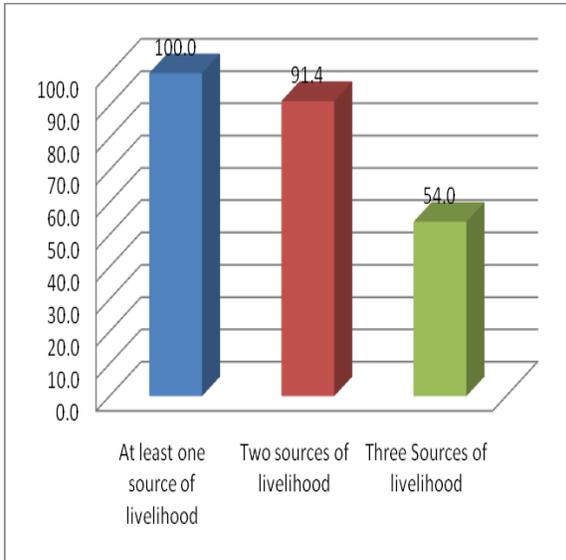


Figure 8: Number of Livelihood sources engaged in by Households

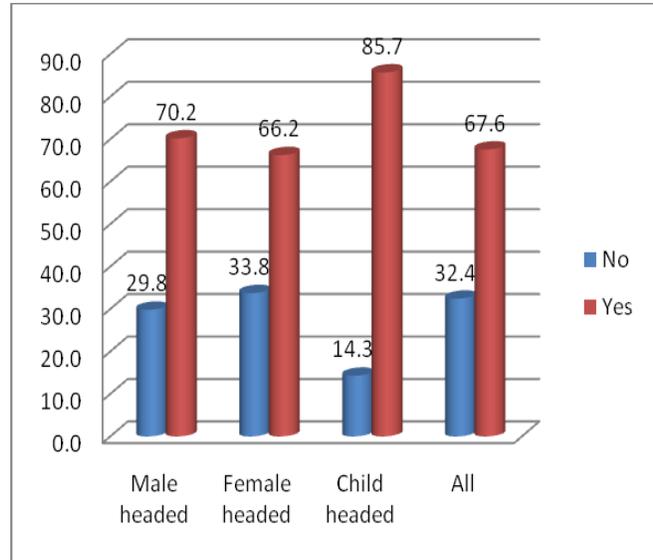


Figure 9: Change in Livelihood Sources in the past 3 years

Respondents gave a number of reasons for the changes in their livelihoods which ranged from increased food production compared to the previous years as a result of the cash transfer support received, increased household asset bought as a result of participating in the cash transfer programme, ability to sponsor children to school now than before due to the participation in cash transfer activities. Similarly, other household reported that they had managed to buy livestock using the money received from the cash transfer programme. Others also observed that as a household, they were now in a better position to buy fertiliser and other farm input now than before as such their livelihood was changing for the better than before.

For those that reported that their livelihood was worse than before (30.1%) cited reasons such as challenges faced from climate-related shocks such as drought, Fall Army Worms and flooding which affected their crop production leading to problems of food accessibility. 15.3% reported that due to health problems and old age, their livelihood had deteriorated than before and they only relied on the cash transfer programme to survive. Similarly, there were also sentiments related to low food production, inability to access farm input/fertiliser and general reduction in household income now than before.

For those that were affected by climate-related shocks, the majority were affected by flooding in 2016 which mostly affected households in Nsanje (68.4%), Chikwawa (53.8%) Mulanje (32.1%) and Zomba district (16.2%). Similarly, in 2017, most households were affected by the prolonged dry spell which mostly affected households in Neno (71.4%), Mwanza (63.2%), Zomba (73.5%), Mzimba South (78.3%) and Mzimba North (65.7% respectively. Climate-related shocks continued to affect the beneficiaries in 2018 where the majority of the households reported facing another prolonged dry spell which mostly affected Zomba district (72.7%), Chikwawa (69%), Neno (68%), Mzimba North (62.9%) and Mzimba South (65.4%) respectively (Figure 10)

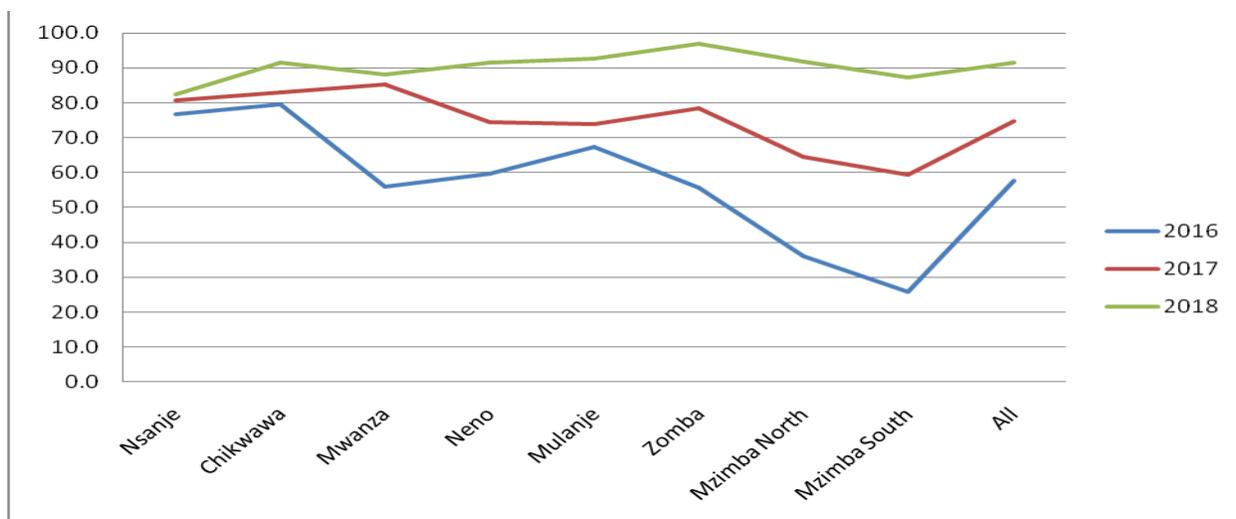


Figure 10: Households Affected by Climate-Related Shocks

4.11 Household sources of income

Household income is a measure of the combined incomes of all people sharing a particular household. Average annual household income is used as an indicator of the monetary wellbeing of a particular area or community from the income earned in a year. The major sources of income across the 7 districts were cash transfer (69.8%), sale of casual labour (62.4%), crop sales (18.4%), petty trade (13.8%), livestock sale (11.3%), gifts and remittances (9.6%), Natural resources based income (4.6%), artisanal skill (4.5%), land rentals (1.6%), formal employment (0.3%) and pension (0.1%) (refer to **Table 8**). Although there were these other sources of income, results showed that cash transfer was the most common source of income for the beneficiaries with Zomba having the highest number of respondents reporting cash transfer as a source of income (77.1%), followed by Neno (72.1%) and Mulanje (72.1%). The least district reporting cash transfer as a source of income was Nsanje with 55.1% of the respondents reporting it. Casual labour was frequently mentioned by beneficiaries in Mulanje (76.8%), Nsanje (73.7%) and Neno (70.5%). Mzimba South was the least district having beneficiaries reporting casual labour as an income source. Other sources of income mentioned by respondents were crop sale which was significant in Mzimba South (29.7%), Chikwawa (20.3%) and Mzimba North (21.9%). Petty trading was common in Neno (20%), Nsanje (19.5%) and Mwanza (15.5%). Livestock sales was common in Nsanje (23.7%), Chikwawa (15.1%) and Neno (16.8%) whereas gifts and natural resources sales was common in Mwanza (14.3%) and Neno (11.6%) respectively although their contribution were not that much.

Table 8: Major sources of income for beneficiary households

Districts	Cash Transfer	Casual labor	Crop sale	Petty trade	Livestock sale	Gifts	Natural Resource sale	Artisanal skill	Land rentals	Formal employment
Nsanje	55.1	73.7	13.6	19.5	23.7	12.7	7.6	5.1	2.5	1.7
Chikwawa	70.3	66.9	21.8	10.9	15.1	12.6	5.9	3.8	4.2	0.0
Mwanza	71.4	51.2	15.5	15.5	10.7	14.3	10.7	7.1	2.4	0.0
Neno	73.7	70.5	10.5	20.0	16.8	8.4	11.6	6.3	0.0	0.0
Mulanje	72.1	76.8	11.1	7.1	7.1	8.2	3.9	1.8	0.4	0.0
Zomba	77.1	65.2	18.2	16.4	10.1	8.6	1.2	5.1	0.9	0.0
Mzimba North	72.2	48.9	20.3	15.0	6.8	6.8	5.3	2.3	1.5	0.0
Mzimba South	59.9	39.2	29.7	14.2	8.6	8.2	1.3	4.7	1.3	0.9
All	69.8	62.4	18.4	13.8	11.3	9.6	4.5	4.2	1.6	0.3

Results showed that the highest average annual income for the cash transfer beneficiaries was from formal employment although not many people were formally employed in the sample. For most of the beneficiaries, their income came from, cash transfer sources and they received an average annual income of MK79, 932.73. Other sources of income that were significant in bringing income to the households were Artisanal skills which brought an average of MK68, 379, petty trading (MK68,022) and casual labour (MK43, 118). The least source of income was from livestock sales which only netted in an average of MK14, 384. (Refer to **figure 11** below).

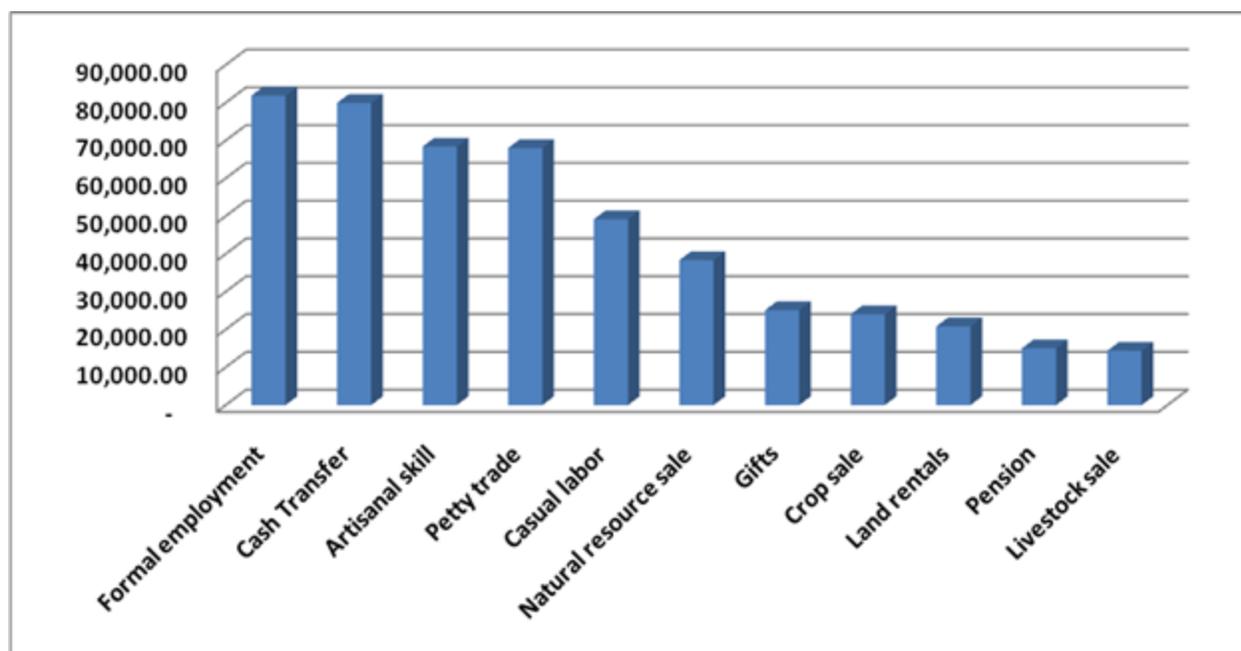


Figure 11: Average income in MK from the sources of income

Average income differences were also observed between male-headed households and female-headed households. The overall mean annual income for the Cash Transfer Beneficiaries was MK118, 350.09 (Euro 144) with a minimum of MK500 (Euro 0.61) to a maximum of MK1, 179,000 (Euro 1435). Mean Male-headed household MK125, 719.69 (Euro 153) and for female-headed households was MK115, 056 (Euro 140) (refer to **Table 9** below)

Table 9: Household Income for the Beneficiaries

Household Type	Minimum	Maximum	Mean	Std. Deviation	Skewness
Male headed	2500.00	640800.00	125719.69	101491	1.611447587
Female headed	500.00	1179000.00	115055.99	108374	3.164152133
Total	500.00	1179000.00	118350.09	106373	2.732276928

In terms of skewness, results further showed that income was more skewed within female-headed households compared to their male counterpart. However, it was clear from the results that the difference between the lowest income (500) and the highest (MK1179000) was very significant for both female-headed households as well as male headed household (minimum was MK2500 and maximum MK640,000).

4.12 Crop production status

Crop production is one of the major occupations of households surveyed in the 7 districts. Just as some of the income came from crop sale, households also relied on crop production for food. The baseline established that maize was the most common grown food crop across all the surveyed districts with over 90% of the respondents interviewed growing it. Maize is a staple crop as such it is grown by a number of households even in areas where maize production is not optimal. Mwanza and Zomba had the highest number of households that grow maize with over 95% of the households interviewed growing it. Chikwawa was the least district where beneficiaries grew maize and this may reflect the contribution that sorghum and millet had on the production of maize. The other common crops grown by beneficiaries included pigeon pea which was mostly grown by respondents in Zomba (71%), Mwanza (56.8%) and Neno (56.8%). Millet and sorghum were also grown by a number of beneficiaries particularly in Nsanje and Chikwawa where for millet, 30.5% and 27.2% of the sampled households were growing it respectively. In these districts, millet can sometimes substitute maize as a staple crop. However, even in these two districts, maize was still dominant compared to millet and sorghum. Other commonly grown crops from the study include beans (11.4%), rice (5%), Sweet potato (9.6%) and cassava (4.8%). Refer to **Table 10**.

Table 10: Percent of crops grown by beneficiaries in the 2017/2018 growing season

Crops	NE	CK	MN	NN	MJ	ZA	MZ North	MZ South	All (%)
Maize	88.1	76.6	95.2	93.7	93.5	95.2	88.0	91.4	90.1
Pigeon peas	15.3	18.8	63.1	56.8	67.4	71.0	2.3	1.7	39.8
Cassava	10.2	1.3	6.0	4.2	8.2	3.3	6.8	2.6	4.8
Sweet potato	43.2	11.7	6.0	5.3	2.2	3.6	11.3	9.9	9.6
Cotton	0.0	1.3	0.0	1.1	0.0	2.4	0.0	0.0	0.8
Tobacco	0.0	0.8	0.0	0.0	0.0	0.6	2.3	2.6	0.9
Rice	16.9	12.6	0.0	0.0	1.8	5.7	0.8	0.4	5.0
Groundnuts	11.9	6.7	7.1	21.1	0.7	16.4	26.3	27.6	14.0
Beans	16.9	23.0	6.0	1.1	2.5	1.8	29.3	16.8	11.4
Irish potato	0.8	0.0	0.0	0.0	0.0	0.3	3.8	0.0	0.5
Millet	30.5	27.2	0.0	2.1	6.5	6.9	3.0	0.4	9.8
Sorghum	18.6	37.7	1.2	4.2	37.2	23.7	1.5	2.2	20.2
Other	16.1	7.1	13.1	26.3	16.2	11.9	21.1	41.8	18.6

4.12.1 Beneficiary involvement in winter and summer cropping

Results also showed that the majority of beneficiaries were combining summer and winter cropping although summer cropping was more common than winter cropping. A total of 75.7% of the respondents were involved in summer cropping whereas only 56.9% were involved in winter cropping. The highest number of beneficiaries involved in winter cropping were from Nsanje (70.3%) seconded by Chikwawa (69.5%) and Mzimba North (62.4%). The least district with winter cropping was Mzimba South (45.7%) which did not have many rivers and easy access to irrigated agriculture.

Mzimba North has the highest number of household involved in rainfed (summer) cropping with over 80% of the beneficiaries participating in rainfed agricultural production. This was followed by Mulanje with over 78.8% of the beneficiaries involved in rainfed agricultural production. In addition, respondents in Neno (77.9%), Zomba (76.8%) and Mzimba South (75.2%) reported participating in the rainfed agricultural production as shown in **Figure 12 and 13 below**.

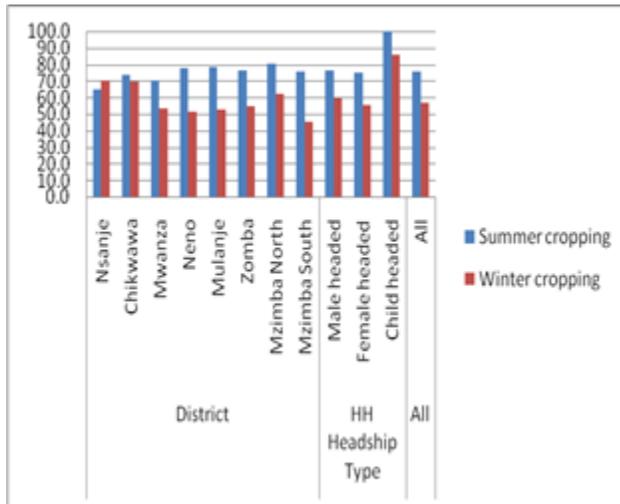


Figure 12: Households involved in crop production for summer and winter

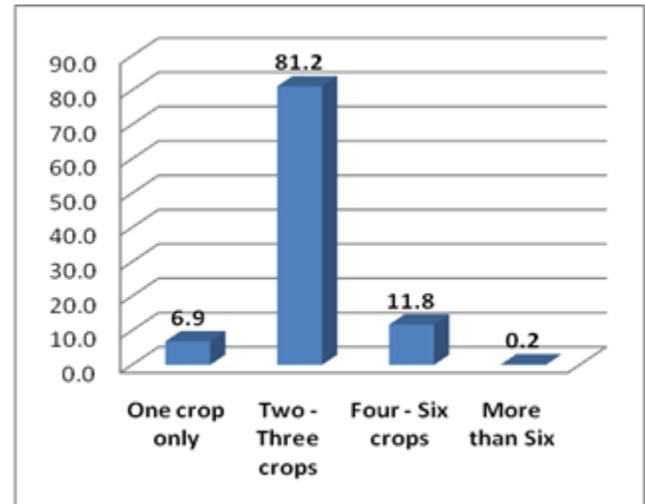


Figure 13: Number of Crops usually Grown by Household

4.12.2 Crop diversification

Concept of crop diversification means competition among various grown crops for space in a given region. It also means raising a variety of crops involving intensity of competition amongst field crops for arable land. The baseline collected data on the number and type of crops cultivated during the 2017/2018 season on the same piece of land. Results showed that the majority of households (81.2%) cultivated between two to three crops. This was seconded by those that cultivated between four to six crops (11.8%) and then those that cultivated only one crop which were 6.9% of the beneficiaries. Very few households (0.2%) cultivated more than six crops (**Figure 14 above**). These results demonstrated that overall, there was a high crop diversity in the farming systems of most households.

On the Crop Diversification Index (CDI) which is an index of concentration and diversity of crops within the farming system, results showed that average diversification index for the sampled households was 0.61 with a standard deviation of 0.17. The result implied high crop diversification intensity of the sampled households in the seven participating districts. Considering that Malawi has a variable climate, crop diversification helps farmers insure against disasters such as floods and drought. Furthermore, crop diversification helps farmers exit maize poverty trap in case of adverse weather conditions that do not allow maize to reach maturity stage.

4.12.3 Households access to improved hybrid seed

Access to quality seed is crucial for increased production of both food and cash crops. Respondents were asked whether they had planted improved or hybrid seed in the last growing season (2017/2018). This was to assess the use and adoption of hybrid seeds amongst the project beneficiaries. Results showed that the majority of the beneficiaries did not have good access to improved seed particularly hybrid seed for increased crop production as shown by 82.5% of the respondents who did not have access to improved hybrid seed for their crop production. This was almost the same for female-headed households (82.9%) and male-headed households (81.2%). There was only a slightly better access to improved seed in Neno (31.6%) compared to the other districts such as Nsanje (24.6%), Zomba (17.3%), Mzimba North (15%), Chikwawa (13.4%), and Mzimba South (12.1%). In terms of the sources of the seed for those that had access to quality seed, results showed that most of the respondents got the seed from NGO/CBO (36.7%), bought from the market (6.7%), and Government subsidy (37.4%). In terms of the district-specific seed access, NGO/CBO was the highest source of hybrid seed in Nsanje (74.1%) and Mwanza (72.7%) while buying from the local market was highest in Zomba (48.1%), Mzimba North (50%) and Mzimba South (65.4%). Government subsidy was highest in Neno (50%) and Mulanje (44%). **Figure 14** gives more details.

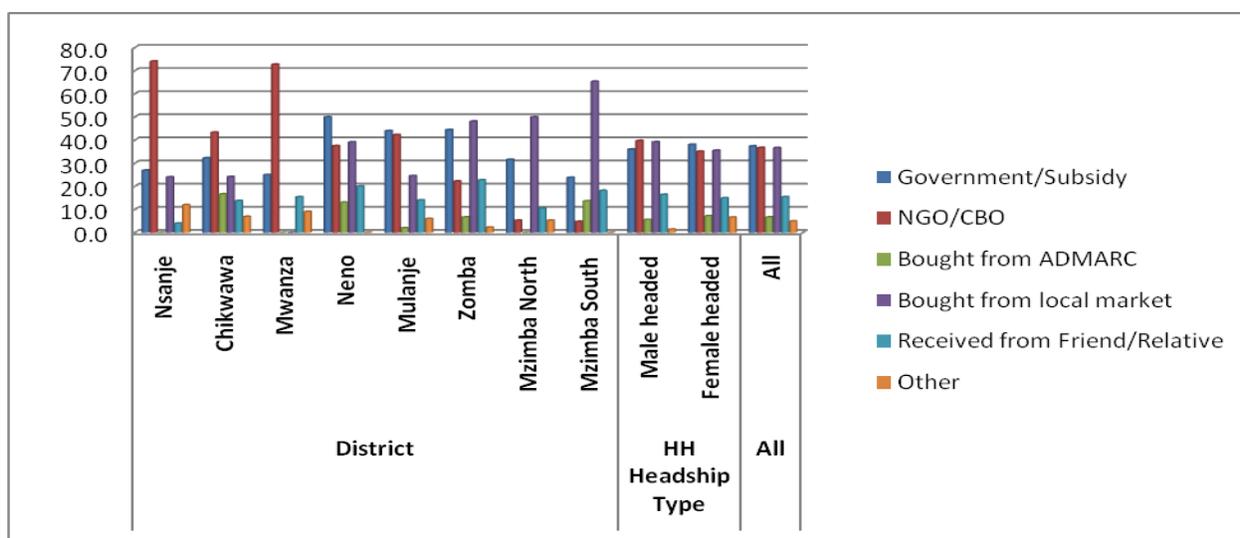


Figure 14: Sources of Hybrid Seed Planted by Beneficiaries

Similarly, feedback from the key informant interviews with District Crop Officers showed that the majority of farmers in the districts accessed seeds from programs such as Farm Input Subsidy Program (FISP), NGO projects and agro-dealers. FISP is their main source of maize and legume seeds where farmers are given a choice of legumes available such as soya beans, groundnuts, pigeon peas, cow peas and beans. The main sources of seed for cotton in cotton growing areas were the ginners like TOLEZA farm and Malawi Great Lakes. Cotton production in these areas depended on the number of seeds and pesticides the organizations have distributed to the farmers. The lower the number of inputs distributed, the lower the production in that growing season.

4.12.4 Average crop production (Yield Per Hectare)

This focused on the average production of the major staple (Maize, Cassava, Sorghum) and cash crops grown in the areas under the study in the 2017/2018 growing season. Results showed that the overall average yield (Kgs/hectare) for maize was 237.14 while that of pigeon peas was 62.2. Sorghum which is mostly grown in the Lower Shire as a staple crop had an average production of 81.6kg/hectare. The average yield for maize was lower compared to the national average of 520kg/hectare for maize during the same period (MoIWD, 2017). However, considering the drought conditions that characterized these farming systems, the results are a true reflection of the staple food production challenges that households experienced during the 2017/2018 season. Yield for other staple crops ranged from 139.2kg for cassava, 180kg for sweet potato and 43.55kg for beans and 102kg for groundnuts. Yields of cash crops also varied tremendously from crop to crop with cotton having an average yield of 59kg/ha, tobacco (338kg/ha), rice (174.5kg/ha), Irish potato (91.67kg) as shown in **table 11**.

Table 11: Mean yield of harvest in 2017/18 growing season

Crop	Minimum	Maximum	Mean
Maize	10.00	10000.00	237.14
Pigeon peas	10.00	650.00	62.28
Cassava	10.00	750.00	139.32
Sweet potato	10.00	900.00	180.10
Cotton	50.00	80.00	59.00
Tobacco	20.00	1800.00	338.18
Rice	10.00	600.00	174.59
Ground nuts	10.00	1400.00	102.01
Beans	10.00	350.00	43.55
Irish potato	25.00	150.00	91.67

Millet	10.00	720.00	94.13
Sorghum	10.00	350.00	81.63
Other	10.00	700.00	90.95

4.13 Household Food Security

4.13.1 Food availability

The baseline assessed the preferred staple food crop in the district considering the various socio-economic and cultural factors prevalent in the districts. Assessment of the staple food crop was based on the 2017/2018 food production. Results indicated that the majority (94.9%) of the households considered maize as their staple crop (**Figure 15**). This was also the case in areas where other food crops such as sorghum and millet are also considered as staple food mainly in Nsanje and Chikwawa. The major sources of the staple food were mostly own production, purchasing on the market and to a lesser extent ganyu, free distribution and begging (**Figure 16**).

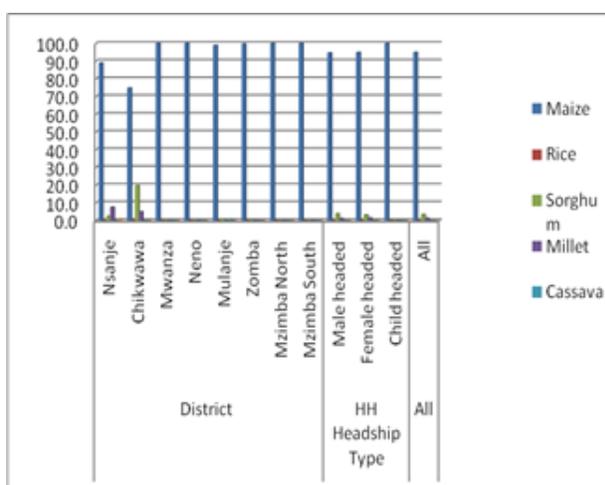


Figure 15: Households main staple food

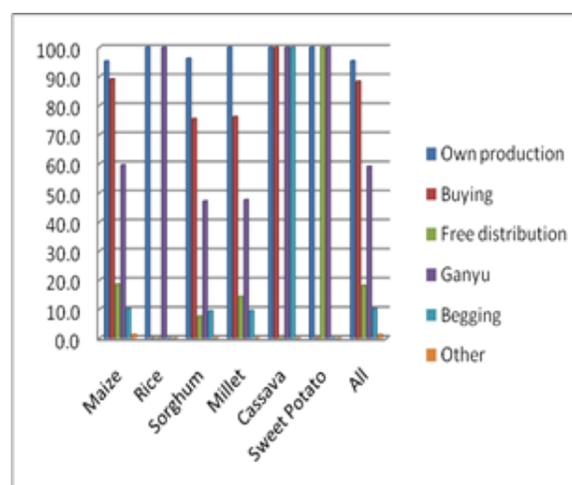


Figure 16: Sources of main staple food

4.13.2 Average Number of months of food deficit in targeted households

Availability of adequate food supply at household level is critical to the wellbeing of cash transfer beneficiaries in the targeted districts. Consequently, beneficiaries were asked whether their food lasts for the whole year in order to cover for the whole months of food security. Results showed that the majority (84.3%) of all the households interviewed stated that they do not usually harvest enough staple food to last from last one harvest to the other (Figure 18). The majority of the households are only able to harvest enough to cover a few months within a year to supply adequate food for the households. Results further showed that the majority of the cash transfer

beneficiaries (49.4%) are able to harvest enough to cover for about 3-5 months only of the households while only a small percentage (4.2%) are able to supply food to the household over a period of 9 -12 months(**Figure 17**).

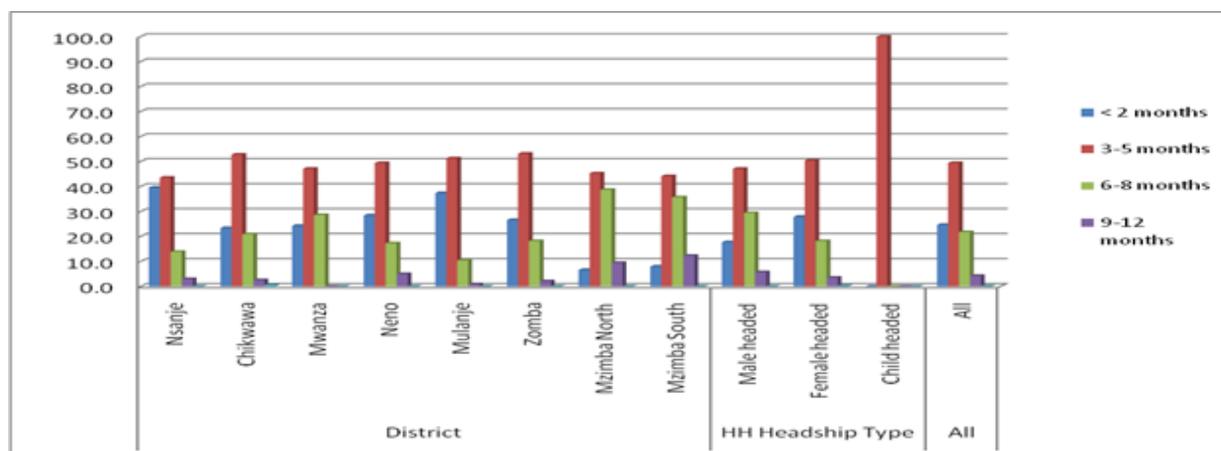


Figure 17: Percentage number of months of own harvest

The average number of months of food deficit in the targeted households was 7.6 months with female-headed households having higher food deficit months (7.9 months) compared to their male-headed households (7.4 months) as shown in **Table 12**.

Table 12: Average number of months of food deficit by District

Category	Description	No. of months
District	Nsanje	9.2
	Chikwawa	8.8
	Mwanza	7.5
	Neno	7.8
	Mulanje	7.3
	Zomba	8.9
	Mzimba North	6.8
	Mzimba South	6.5
Household Headship	Male-headed	7.4
	Female-headed	7.9
All	All	7.6

In terms of the district variances, Nsanje (9.2), Zomba (8.9) and Chikwawa (8.8) had the highest food deficit months compared to the other districts. The lowest number of food deficit months was noted in Mzimba South with only 6.5 months of food deficit. Since the programme is already focused on food security, a number of interventions that include provision of additional cash to households to purchase food and promotion of irrigation farming would be ideal in order to supplement existing household food sources.

Drawing from the FGD's conducted, majority of SCTP beneficiaries reported drought that occurred during the past growing season largely contributed to the food insecurity situation in their areas. Additionally, poor soil fertility also features highly as a major contributor of food insecurity in their areas as they reported land being tilled continuously for a long time to an extent that it can no longer support agricultural production without external supply of nutrients. Other factors such as lack of agricultural inputs/fertilizer, the high cost of inputs and unreliable markets for food commodities also played a role.

On the availability of own food production, it was clear that some households had already exhausted their stock particularly in districts such as Nsanje, Chikwawa, Zomba, Mwanza and Neno due to the unfavourable conditions experienced last year. Results from the FGDs further showed most households in these districts having food for only 1 to 4 months which correlated very well with the findings of the survey and therefore would not have sufficient food for about 8 months. FGD participants in Namikango Cluster in Nsanje indicated that food from own sources had finished within 1-2 months and that they were relying on buying food from the vendors to cover up for the shortfall. Ms Fuyeni, one of the FGD participants stated that

“The village is now feeling the effects of poor harvest from this year’s drought. In my household, we only harvested a bag of maize from an area of about 2.5 acres which took only a month to finish and this has really put pressure on our household food sources. We are not sure how we are going to survive particularly during difficult times like January when the food situation is very bad.”

Results further showed that January, February and March remained the critical months of food insecurity as the majority of the respondents reported experiencing challenges accessing food during these periods as shown in **figure 18** below.

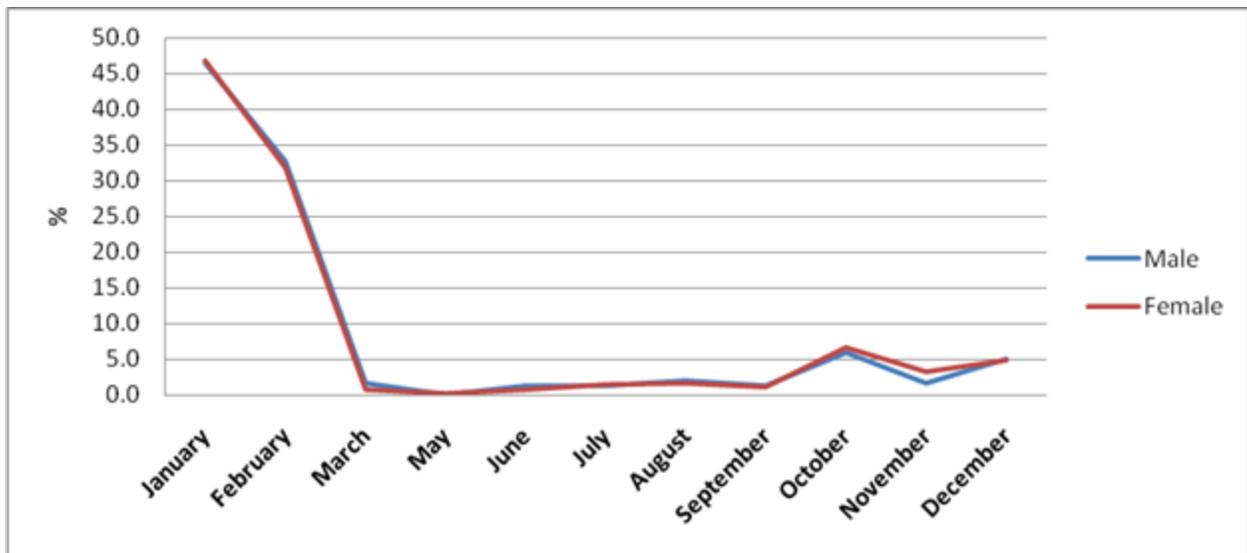


Figure 18: Most critical months of food shortage

4.14 Coping Strategy Index

Coping strategies are behavioural changes made at the household level to adjust for food shortages. The Coping Strategy Index (CSI) is a measure of household food insecurity which focuses on series of questions about how households manage to cope with shortfalls of food for consumption and results in a simple numeric score. The more people have to cope, the less food secure they are. The CSI is used for early warning and food security monitoring. The higher the CSI score, the more food insecure a household or a district is while a low CSI means a stable food security status

The baseline asked information on the total of twelve commonly used coping strategies. Each question used five relative frequency categories ranging from 'every day per week' to 'never'. The baseline collected information on the relevance of coping strategies among sample communities and determined the relative severity. During the study, respondents were asked to recall the coping strategies that were used in the past 7 days which they did not have enough food.

Results showed that the overall CSI for the sampled households was 17.20. The average CSI did not vary significantly among the seven district surveyed with Neno having the highest CSI of (23.38) followed by Mulanje with a CSI 18.17. The lowest CSI was reported in Mzimba South and Mzimba North due to a slightly better harvest during the previous season than the other 5 districts. The lower CSI amongst the surveyed districts may also reflect the timing of the study as the data collection was done immediately after the harvesting period which may have contributed to households having some stocks from the current harvest which they were eating. **(Refer to figure 19 below)**

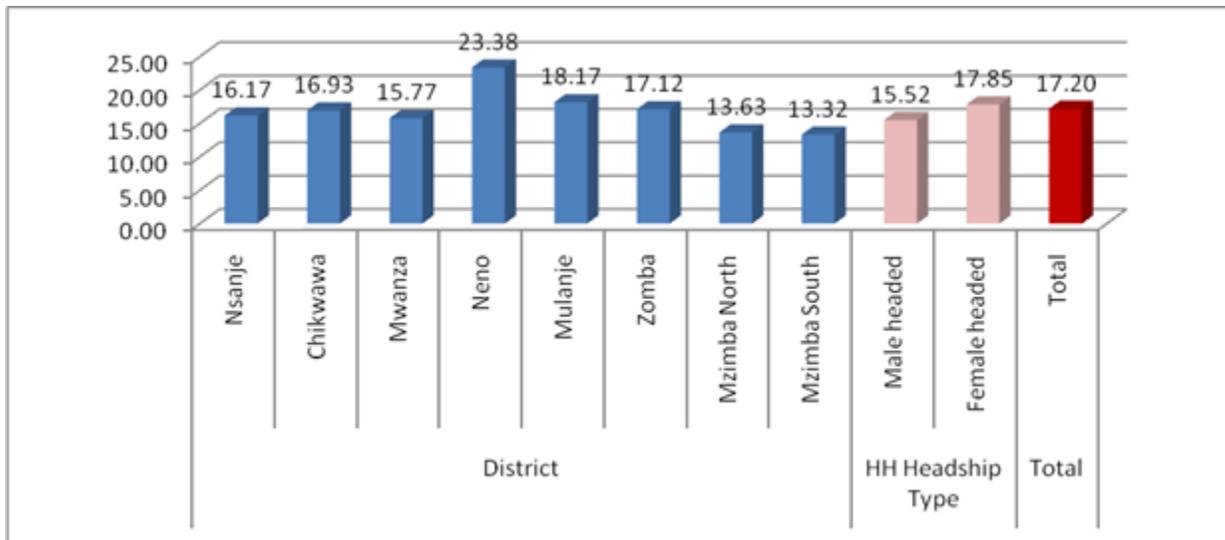


Figure 19: Mean Coping Strategy Index

Household Food Security status

Further analysis of the CSI through categorizing households into different food security groups showed that the majority of the cash transfer beneficiaries (46.3%) were in the non food insecure category while 22.6% were in the mildly food insecure category. Only 11% of the cash transfer beneficiaries reached were in the extremely food insecure category (**Figure 20 below**).

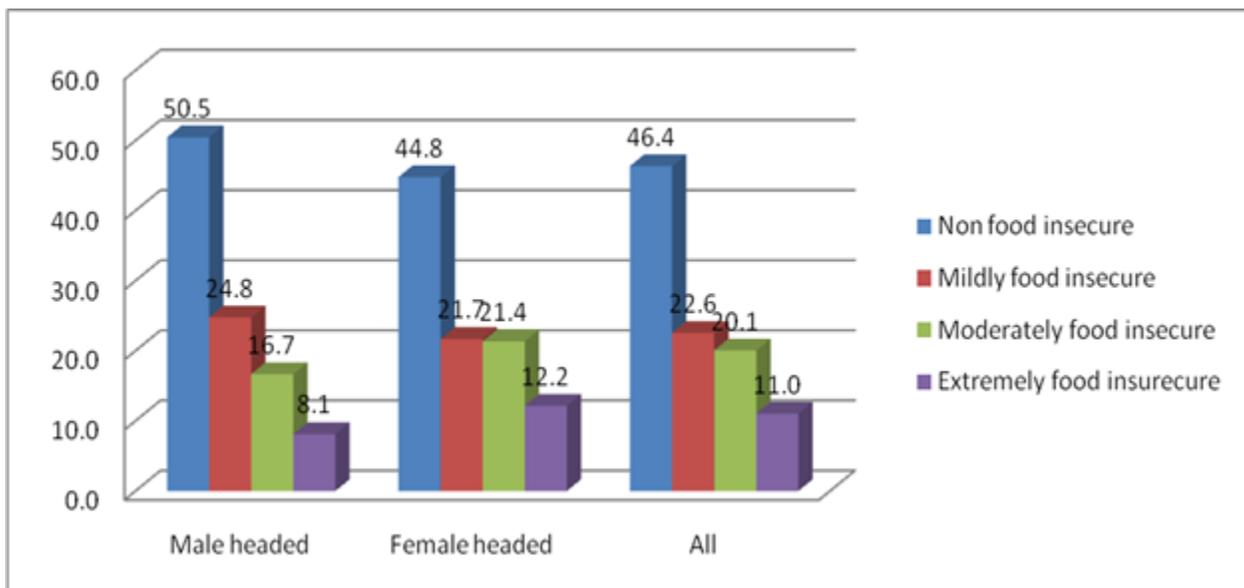


Figure 20: Household food security status

The implication of the Coping Strategy Index found above is that based on the values of the CSI, there is evidence that almost half of the households are currently food secure and relying on less negative coping strategies which may reflect better resilience to food security as a result of the cash transfer program. The lower the value of the CSI, the more resilient are the households to either prevent shocks, or when faced with a shock, respond with positive coping strategies that do not permanently diminish their productive capacity. However, this may not be the case in the coming months as most households indicated that they have already ran out of food and would rely on the cash transfer to purchase food. Should the market price for food increase, this may affect the ability of these households to be resilient to food and nutrition security even with the provision of cash support.

4.14.1 Household Dietary Diversity

Household Dietary Diversity Score (HDDS) reflects the economic ability of a household to access a variety of foods. HDDS measures the number of different food groups consumed over a given period. It provides an estimation of the quality of a diet and can be measured both at household and individual levels. A total of 12 food groups classified as: cereals and cereal products, roots and tubers, vegetables, fruits, meat and meat products, eggs, fish and other seafood, legumes, nuts and seeds, milk and milk products, oil and fats, sweets, spices, condiments and beverages were assessed in the study. If some of these food groups were eaten in the household in the past 24 hours, the food groups got a score of 1, otherwise zero. The sum of the score was 12 and an average Household Dietary Diversity Score (HDDS) was derived by adding the HDDS⁸ for all the households in the sample and dividing the total number of households surveyed.

Results in **figure 21** showed that the overall average HDDS was 4.4. There was a higher HDD in male-headed households (4.6) compared to female-headed households (4.3) although the difference was not significant. In terms of the district-specific HDDS, results further showed that Mzimba South (4.8) had a highest HDDS compared to the other districts and was followed by both Mzimba North (4.7) and Nsanje (4.7) respectively. The lowest HDDS was recorded in Mulanje at only 4.0

⁸HDDS was assessed using the IFPRI DDS thresholds. The thresholds included the following: <4.5 = low dietary diversity; 4.5-6 = medium dietary diversity and 6+ = good dietary diversity



Figure 21: Mean number of food groups consumed by HHs in the past 24 hours

Considering the thresholds given by IFPRI (2009) above, results showed that overall 59.8% of the respondents had a low dietary diversity score while 30.7% had medium dietary diversity and only about 10% had good dietary diversity as shown in the **figure 22** below.

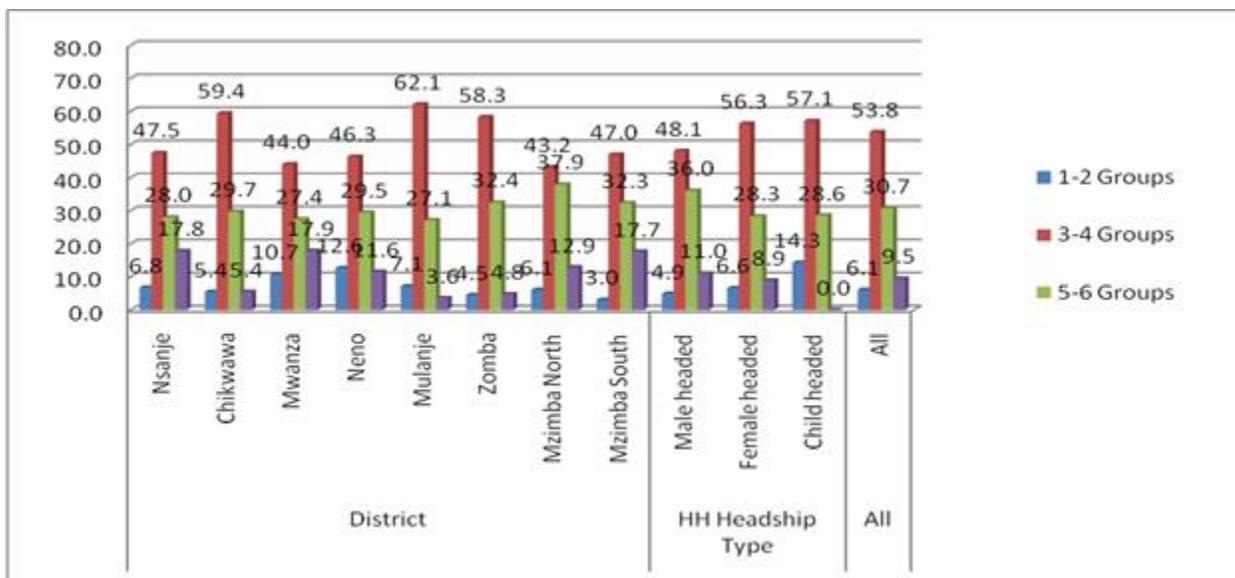


Figure 22: Dietary Diversity Category

Considering the majority of beneficiaries falling in the low dietary diversity category, the programme Interventions should generally focus on the promotion of crop diversity and home gardens with diverse vegetable and fruit production. This can be done, for example, through distributing crop, vegetable and fruits seeds, training farmers on home gardening and the

importance of crop diversity, conducting study trips for farmers to learn about home gardening and setting up model home gardens for community learning.

4.14.2 Dietary Diversity Score for Women and Children

Women’s diets were assessed by asking the mother to describe everything that she ate during the previous day and night, whether at home or outside the home. As per recent guidelines on women’s dietary diversity, the woman was asked to freely recall her day from waking up to going to sleep for the night (FAO and FHI 360. 2016). For this study, data on household dietary diversity score was collected using a 24-hour recall by mothers who were asked about specific 10 food groups consumed which included; Grains, white roots and tubers, and plantains; Vitamin A-rich fruits and vegetables; Dark green leafy vegetables; Other fruits; Other vegetables; Meat, poultry and fish; Eggs; Pulses (beans, peas and lentils).

Among the visited districts, Mzimba South had the highest MDD -W score of 5.15, seconded by Nsanje with 5.08 then by Neno with 4.48. Overall, the average MDD-W scores of 4.47. In terms of the number of food group consumed by children between 6-23 showed that children were consuming on average 3 food groups with the highest number of food groups reported in Mwanza (5), Mzimba South (4). There were no differences between the food groups consumed by children in Male-headed households compared to the female-headed households as they all had an average of 3 food groups consumed by the children. **Figure 23 & 24** below.

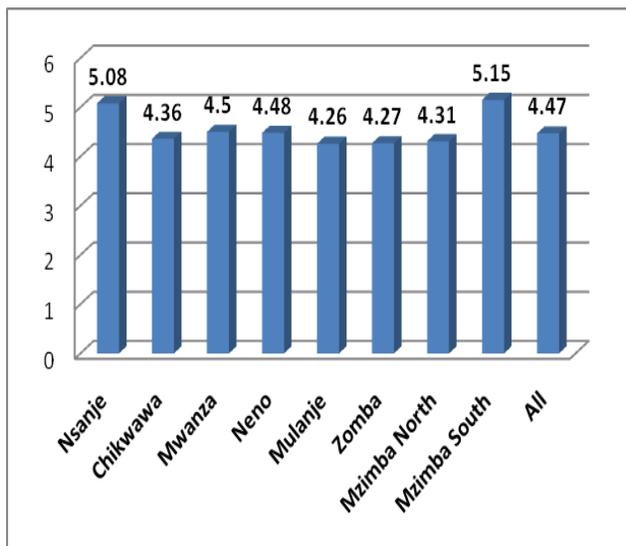


Figure 23: Mean number of food groups consumed by women aged 15 to 49 years

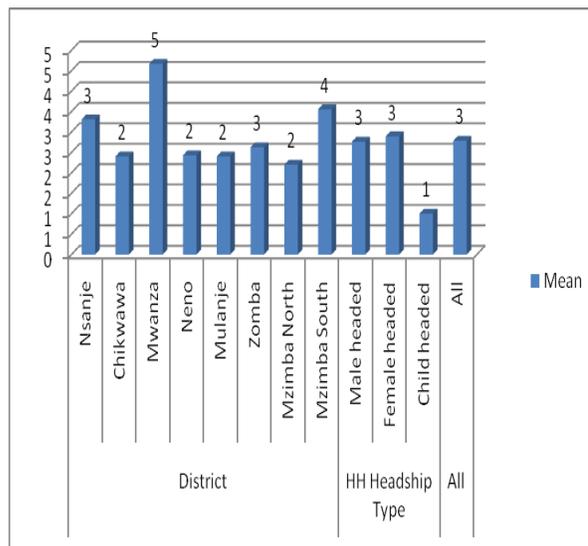


Figure 24: Mean of food groups consumed by a child aged 6-23 Months

4.14.3 Minimum Acceptable Diet

The Minimum Acceptable Diet (MAD) indicator is designed to measure the proportion of children who receive a minimum acceptable diet. The minimum acceptable diet indicator is made up of two separate indicators: dietary diversity and meal frequency, and takes into account the child's age and whether he/she is breastfed to determine whether the MAD threshold for acceptability has been reached.

A minimum dietary diversity refers to a daily consumption of items from at least 4 food groups. Non-breastfed children must consume 4 of 7 food groups (dairy is excluded because milk feeds are considered a separate and required element for these children.) Non-breastfed children must have a minimum number of milk feeds of 2, in addition to other requirements.

In terms of exclusive breast feeding, results showed that 88.4% of the interviewed women with under-five children were exclusively breastfeeding their babies (6-23 months). While this was the case, results further showed that only 43.0% of the children were meeting the minimum acceptable meal frequency and only 20.9% were meeting the minimum dietary diversity. In terms of the percentage of children meeting the minimum acceptable diet (MAD), results showed that only 8.1% of the children 6-23 were meeting the MAD (**Table 13** below).

Table 13: Minimum Acceptable Diet (MAD)

Age Category	Number of children	% Breastfed	MAD sub-components		% Meeting Minimum Acceptable Diet
			% Meeting Minimum Meal Frequency	% Meeting Minimum Dietary Diversity	
6-11 Months	35	97.1	54.3	11.4	5.7
12-17 Months	30	86.7	36.7	23.3	13.3
18-23 Months	21	76.2	33.3	33.3	4.8
Total 6-23 Months	86	88.4	43.0	20.9	8.1
<6 or >24 months	26	NA	NA	NA	NA

Considering the low levels of MAD in the targeted districts, the programme deliberately target interventions aimed at Promotion of breastfeeding and under-five child clinic visits will greatly improve the MAD for children 6-23 months. Breastfeeding the infant decreases the number of complementary feedings needed and increases the likelihood of an infant to achieve his/her MAD. Promotion of crop diversity and home gardens with diverse vegetable and fruit production are also some interventions that could be promoted to improve on child nutrition.

4.14.4 Body Mass Index

Body mass index (BMI) has been a traditional way of measuring how healthy one's body weight is in relation to the height. The Body mass index is an attempt to quantify the amount of tissue mass (Muscle, fat, and bone) in an individual, and then categorize that person as underweight, normal weight, or obese based on the body mass index value. Body mass index provides a simple numeric measure of a person's thickness or thinness, allowing health professionals to discuss weight problems more objectively with their patients.

To calculate body mass index, the weight of an individual in kilograms is divided by the square of their height in meters. Therefore, a Body mass index of less than 18.5 falls in the range of being underweight, a Body mass index of 18.5 to 25 is said to be within the normal range, a Body mass index that lies in the range of 25 to 30 is said to be in the overweight range according to the Center for Disease Control (CDC) Criteria. A Body mass index of 30 or over is within the obese range. With regard to the above BMI definitions, a healthy BMI for women is between 18.5 and 25. However, a woman with a body mass index of over 25 is in the overweight or obese categories, thus above the ideal body weight range.

On BMI, the prevalence of underweight among women of reproductive age showed that 10.5% of the women were underweight while the majority (62.9%) of women interviewed was within the normal range of BMI. Based on the study calculations, over 18.6% and 9.1% could be classified as overweight and obese respectively. (**Figure 25** below)

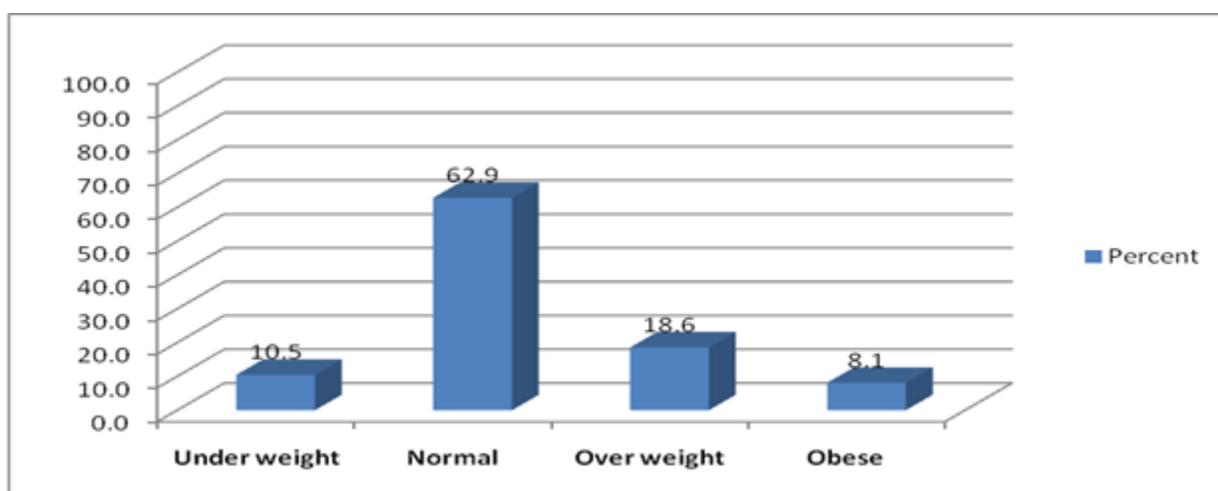


Figure 25: BMI Category for Women aged 15 to 49 years

For those women that were classified as underweight, and obese the programme should aim at providing adequate information on recommended nutritional practices with wide dissemination targeting mothers and their spouses to help influence positive behavior change towards adoption of better nutritional practices. Similarly, effort should go towards promoting dietary diversity through home gardening of high nutrient foods as a complementary intervention.

4.15 Climate Smart Agriculture Technologies

4.15.1 Adoption of Climate Smart Agriculture Technologies

Climate Smart Agriculture Technologies are being promoted worldwide with the ultimate objective of curbing the diverse effects of climate change. Climate-smart technologies include soil and water conservation technologies, conservation agriculture, manure making and vetiver planting. Farmers were asked whether they had received training in climate-smart agriculture or not and whether they were using the CSA practices.

In terms of the individual soil and water conservation, results showed that the most commonly adopted soil and water conservation were Box Ridges which was reported by 36.7% of all the respondents. This was followed by contour ploughing (27.5%), mulching (24.2%) and pit planting (17.1%) and zero tillage (14.2%). In terms of district-specific adoption of soil and water technologies, results showed that mulching was most popular in Nsanje where 45.5% of the respondents reported using it. Terracing was most popular in Mwanza where a total of 22.2% of the beneficiaries reported it. Contour ploughing was commonly adopted in Mzimba South (40.2%) of the respondents while box ridges were popular in Mwanza and Zomba district. Chikwawa and Nsanje had the most beneficiaries who reported adopting river bank protection whereas Zero Tillage, Pit Planting, Check dams and Swales were very popular in Nsanje, Mwanza, Neno, Chikwawa and Neno respectively. **Table 14** provides more detail with regard to these findings.

Table 14: Soil and Water Conservation Practices being practiced in selected Districts

Category	Description	Mulching	Terracing	Contour ploughing	Cover planting	Box ridges	River protection	Zero-tillage	Pit planting
District	NE	45.5	15.6	21.9	18.8	33.3	21.2	35.3	21.2
	CK	18.2	6.4	33.3	22.8	38.3	20.3	22.5	23.1
	MN	26.7	22.2	33.3	7.4	40.7	7.1	17.9	25.0
	NN	41.2	15.7	21.6	19.6	29.4	7.8	11.8	25.5
	MJ	19.8	13.7	23.9	3.4	45.8	6.8	6.0	10.3
	ZA	21.8	9.9	16.0	6.1	40.4	5.3	10.4	12.9
	MZ North	18.2	14.3	37.5	12.1	29.3	5.4	7.0	12.5
	MZ South	24.2	12.8	40.2	13.7	27.1	11.6	19.6	20.8
	HH Headship	Male headed	23.8	10.4	28.1	16.0	35.2	7.8	14.1
Female headed		24.5	13.2	27.3	9.4	37.2	10.8	14.3	16.4
All	All	24.2	12.5	27.5	11.5	36.7	9.8	14.2	17.1

In terms of households that adopted two or more agricultural technologies, results showed that 67.4% of the respondents had adopted two or more technologies and this was highest in Mwanza (87.2%), followed by Mulanje (82%) and Nsanje (68.6%). The lowest district in terms of adoption of agricultural technologies was Mwanza with only 12.9%. Refer to **figure 26** below.

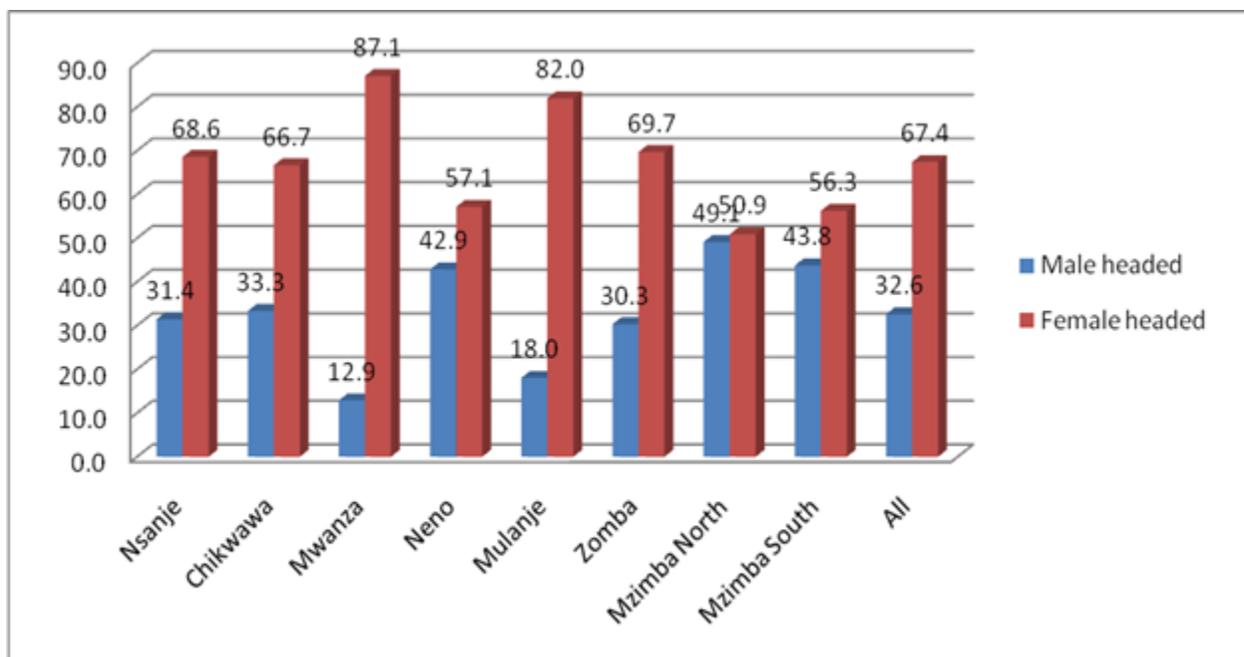


Figure 26: Household adoption of two or more agriculture technologies

Adoption of Soil and Water Conservation technologies was mostly done as part of resilience initiatives done by other organizations and NGOs such as World Vision in Mzimba North, CADECOM and Eagles in Chikwawa and Oxfam in Mulanje as well as Save the Children in Zomba. Construction of swales and other soil and water conservation technologies (e.g. vetiver), pit planting and planting of trees along the river banks was mostly done as part of land degradation measures which communities were undertaking as part of strategies to reduce vulnerability to drought and flood-related challenges.

4.16 Early Warning Systems

4.16.1 Existence of early warning systems in the communities

The baseline study also collected information related to knowledge of Early Warning Systems by the Social Cash Transfer Beneficiaries in the sampled districts. EWS are a set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss.

The study revealed that there were a number of sources where the SCTP beneficiaries could access advisory information on weather such as from government extension workers and the media particularly radio. Unfortunately, the extension workers were inadequate, compared to the number of farmers in need of the information. The extension worker to farmer ration currently stands at over 1:2,500 while the recommended is 1:750. Extension Planning Areas were noted not to have fully fledged weather forecasting mini-stations. Mini weather stations would have facilities such as mobile phone technologies, river gauges, computerized flood forecasting and community radios, just to mention but a few.

The Department of Climate Change and Meteorological Services (DCCMS), in Malawi, currently provides and sends out weather forecasts daily and after five days. Apart from these forecasts, the department also sends out ten-day forecasts on every Monday. The forecasts give predictions of temperature, rainfall, and wind for the forecast period. They also give advanced warnings, such as the potential for flooding if heavy rainfall is expected on already-saturated ground. During the growing season, from October to April, the DCCMS issues ten-day weather and farming-specific meteorological bulletins. All the forecasts are distributed through television and newspaper media, as well as on the DCCMS website (www.metmalawi.com). The study noted that this information is not available to majority of the smallholder farmers in the project impact areas, because they do not have televisions, cannot access newspapers and websites.

4.16.2 Knowledge of early warning systems in their communities

In terms of the knowledge of Early Warning Systems, results showed that overall only 32.2% of the SCTP beneficiaries were aware of any early warning systems in their communities of which the majority (36.2%) were from male-headed households compared to the female-headed households (30.6%) and child-headed household (14.3%). In terms of district specific information, Chikwawa (46%) and Nsanje (44.1%) were the two districts with the highest proportion of SCTP beneficiaries who were aware of the early warning systems prevalent in their communities whilst Mzimba North (24.1%) had the lowest proportion of beneficiaries whose were aware of any early warning system in their location (**Figure 27**).

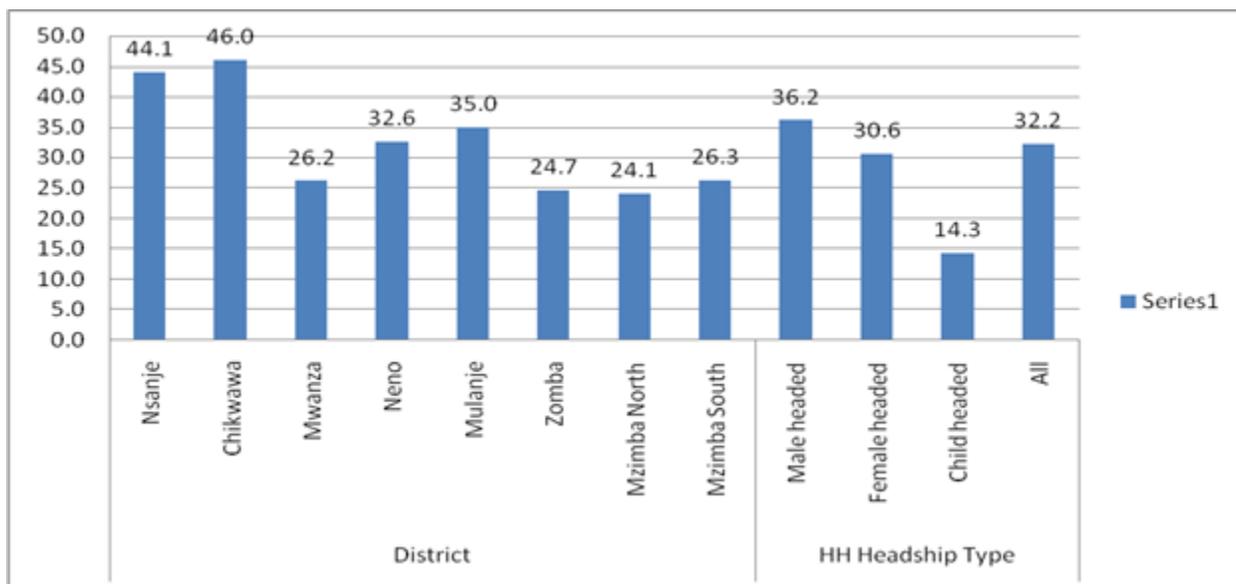


Figure 27: Awareness of early warning systems

Given the diversity of early warning system prevalent in the studied districts, an assessment was also made of the existing early warning systems being used by the beneficiaries. Results further showed that the majority of the beneficiaries were using indigenous early warning systems with an overall 87.1% of the beneficiaries reporting it. This was followed by those that were using radios as a means for getting information on early warning. There were very few cases of use of scientific earl warning systems mainly Mini weather station (5.1%), cell phones

(5.0%), rain gauges (2.6%), river gauge (1.2%), and hydrometric equipment (0.2%) as shown in **table 15** below:

Table 15: Type of early warning system available

HH Head	Rain gauge	River gauge	Indigenous systems	Mini weather station	Hydrometric equipment	Radios	Radio listening club	Cell phone	Other
Male headed	2.7	1.4	84.1	3.4	0.0	42.0	2.1	5.4	2.7
Female headed	2.6	1.1	89.0	5.6	0.4	34.7	3.0	4.8	2.6
All	2.6	1.2	87.1	5.1	0.2	37.2	2.7	5.0	2.6

On indigenous early warning systems, this study has revealed that all the districts except Mzimba have a small base of indigenous early warning signs for forecasting climatic hazards. The study did not find evidence of documentation of the early warning systems, meaning, it is based on recalling. Further on the baseline study revealed that the communities do not use the early warning systems, this is mainly because they are not publicized that every community member knows them. As such there is no use of the EWS to enhance disaster mitigation. Early Warning Systems that the communities could recall during the FGDs, are shown in **Table 16**.

Table 16: Indigenous Early Warning System

District	Indicator	Description of indicator	Meaning of the indicator
Mwanza	Mango trees	Produce flowers just one side of the tree	It indicates drought for that year.
Chikwawa	Crabs, frogs & ants	Appearing in large numbers and frogs produce very loud sounds	It signifies that there is going to be flooding that year
Mzimba	Nil	Nil	Nil
Neno/ Mwanza	Wind	When winds are blowing from East to West	It indicates good rains to fall in season.
Zomba	Tsokonombwe (<i>Loboscelianan aploscelis</i>)	Cries very much	It means that there would be droughts

District	Indicator	Description of indicator	Meaning of the indicator
Mulanje	Granary” on the moon	Granary not standing straight. A tilted granary	Indicates famine
Nsanje	Mango trees	A lot of flowers	Reflects droughts and subsequent famine
Zomba/Neno	Birds	Nests at very high places in trees	reflects flooding during that season

4.16.3 Disaster Risk Management Committees

VCPCs are structures at community levels that facilitate preparedness for climatic hazards and responses during occurrences of disasters. These are referred to as Disaster Risk Management Committees (DRMC's) in the (National Disaster Risk Management Policy, 2015) and are responsible for coordinating the implementation of the policy at different levels including village levels. The DRMCs function in accordance with the terms of reference stipulated in the Operational Guidelines for DRM. The VCPCs report to Area Civil Protection Committees (ACPCs) which in turn report to District Civil Protection Committees (DCPCs). The DCPCs report to District Executive Committees (DEC), which also report the national committees, with the Department of Disaster Risk Management Affairs (DoDMA) coordinating implementation⁹. This study has shown that VCPCs exist in the project impact areas but have different membership compositions and functionality (**Table 17**).

Table 17: VCPC Composition and Functionality in the Targeted Districts

District	Name of VCPC	Membership		Total Membership	Status
		Male	Female		
Chikwawa	Tombokamwa	6	4	10	Active
	Chirthumba	6	4	10	Active
	Suweni	8	8	16	Active
Zomba,	Masaula 2	8	7	15	Active
	Mandanda	6	4	10	Not Active
	Kimu	6	4	10	Active
Mulanje	Wandawanda	8	8	16	Active
	Chikola	6	4	10	Not Active
Mzimba North	Nthapangwa Kamanga	6	4	10	Not Active
	KampingoSibande	6	3	9	Active
	Madise	6	4	10	Active
Mzimba South	Peter Ndawandawa	6	5	11	Active
	MapiraShawa	7	4	11	Active

⁹GoM. National Disaster Risk Management Policy, 2015

Nsanje	Gatoma	6	4	10	Active
	Ngabu	6	4	10	Active
Neno	Dzomodya	5	5	10	Active
Mwanza	Tulongkhondo	6	4	10	Active
	Govati	7	5	12	Active

4.16.4 Contingency plans

In order to enhance disaster preparedness for effective response and to build back better in recovery, rehabilitation and reconstruction, each community is supposed to have Contingency plans. The contingency plans ought to be reviewed and updated on annual basis. This study revealed that in some of the project impact areas have the Community Contingency plans but are in draft form. For instance Kandulu in Mwanza; Mandanda and Wandawanda in Mulanje and Bimbi and Masambuka in Zomba have the plans that are in draft form. At district level, there are some contingency plans that are available in almost all the districts although some are still outdated however, the baseline was able to establish that in districts such as Zomba, Mulanje, Nsanje, Mzimba and Chikwawa, the contingency plans have been updated as recently early as in 2017

4.16.5 Knowledge of Disaster Preparedness and Response Strategies

Asked on whether the beneficiaries had knowledge of disaster preparedness and response strategies in the communities, the majority of the beneficiaries (81.5%) said they did not have adequate knowledge of disaster preparedness and response mechanisms available in their communities. This may reflect the low levels of efforts that village civil protection committees may have invested in the creating awareness in the communities related to disaster preparedness. Similarly, the low literacy levels may also have contributed to the limited knowledge of DRM strategies. The low levels of knowledge of disaster preparedness can also reflect the levels of vulnerability that communities may be exposed to should a disaster strike as they are ill-prepared to take action to mitigate the disasters. Results by gender of the household head showed that more beneficiaries from female headed households (83.2%) were not aware of the disaster preparedness and response mechanism compared to the male-headed households (77.5%) as reflected in **figure 28**. Results further indicated that Zomba, Mzimba South and Mzimba North had the highest number of beneficiaries that did not have adequate knowledge of disaster preparedness and response mechanism available at local level.

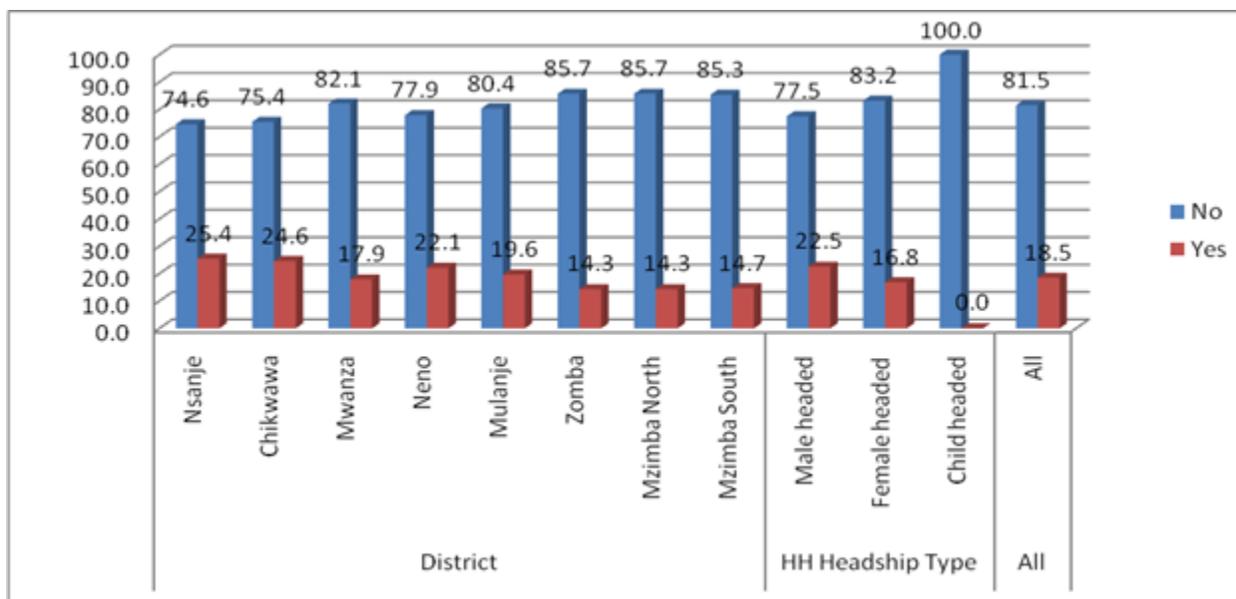


Figure 28: Knowledge of disaster preparedness and response strategies

4.16.6 Knowledge of three strategies enhancing individual and community resilience

In order to better link the Social Cash Transfer beneficiaries to resilient building activities, the baseline asked whether the respondents had existing knowledge of three strategies to enhance individual and community resilience in the communities. Results showed that about 78.1% of the beneficiaries did not have knowledge of three strategies of enhancing individual and community resilience to climate-related disasters. This also reflected the high levels of vulnerability that communities were exposed to considering that they were not aware of how they could promote individual or community resilience. Only a small percentage of beneficiaries (21.9%) indicated that they had the knowledge and this is an opportunity for the PRO-ACT to work with these individuals to enhance the knowledge as well as replicate their knowledge to the broader community.

In terms of the district-specific knowledge acquisition, results showed that Nsanje (30.5%) and Chikwawa (26.8%) had the highest number of beneficiaries that had knowledge of three strategies to enhance individual and community resilience. The higher figures in these two districts reflect the amount of exposure that communities have been exposed to since they are the two districts which are frequently affected by the disaster ranging from drought to flooding. Mzimba South had the least number of beneficiaries that had knowledge of three strategies to enhance individual or community resilience. (Refer to **Figure 29** below)

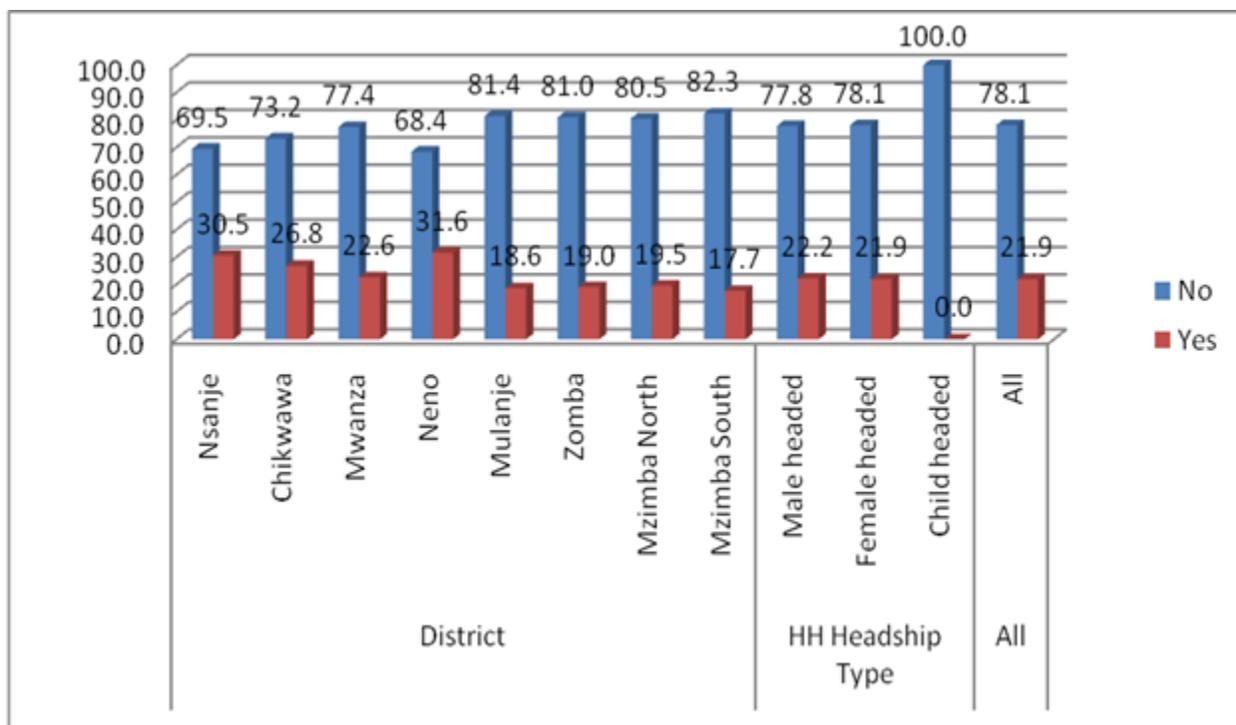


Figure 29: Three Strategies to enhance individual and community resilience

4.17 Social Cash Transfer and livelihoods

The Social Cash Transfer Programme (SCTP) is (locally known as the Mtukula Pakhomo) and is an unconditional cash transfer programme targeted to ultra-poor households. The programme began as a pilot in Mchinji district in 2006. Since 2009, the programme has expanded to reach 18 out of 28 districts in Malawi. The programme has experienced impressive growth beginning in 2012, and most notably over the last two years. By December 2015, the SCTP had reached over 163,000 beneficiary households. The SCTP is administered by the Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW) with additional policy oversight provided by the Ministry of Finance, Economic Planning and Development (MoFEPD).

4.17.1 District Social Support Committees

On Social support programmes, the baseline study established that in all the districts of the MLUMIKIZI project, it is government that is spearheading and implementing the Social support programme through the Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW) with additional policy oversight provided by the Ministry of Finance, Economic Planning and Development (MoFEPD). Only in Mulanje, Traditional Authority Juma, Muonekela Cluster, OXFAM was noted to be implementing a Cash Transfer Programme. The DSSC is a sub-committee of the District Executive Committee (DEC). The DSSC is composed of 15 members (representatives of the Departments of Social Welfare, Community Development, Health, Education, Information, Agriculture and Finance, District Aids Coordinating office, plus two civil society organizations) and is headed by the Director of Planning and Development. The main targeting task of the DSSC is the monitoring, planning, and final approval/disapproval of households. The DSSC checks the targeting process transparency and fairness. If satisfied the

DSSC validates information received from the field (through the DSCTPS) and gives final approval of all program beneficiaries, the neediest 10% targeted, or any other percentage as required by program authorities. Although the District Social Support Committee have been established to monitor the progress of implementation of the SCTP at district level, the baseline established that there are a number of challenges expressed by different key informants faced in relation to their functions such as:

- At national level, limited funding to undertake regular meetings of the DSSC in order to plan and share lessons from implementation.
- Although training was conducted during the inception phase of the programme on members of the committee, there was need to provide more refresher courses so that members can efficiently undertake the targeting process.
- When meetings are held, attendance is sometime poor and mostly attended by selected district officers.
- There is very limited policy engagement on issues of coordination and support for the Social Cash Transfer Programme due to centralized systems.

4.17.2 Community Social Support Committee

The CSSC for Targeting is composed of 6 members and headed by a chairperson. Responsibilities of CSSCs include Identification of potential eligible beneficiary households (between 80 and 150 households per village cluster); Making home visits to current beneficiary households (retargeting) ; Making home visits to all newly identified households (targeting) and Assessing the household situation and complete the targeting form for all visited households

Results showed that community social support committees were available in all the Traditional Authorities (T/As) visited and were instrumental in managing the program at the community level. All the members of the Community Social Support Committee were trained in identification of beneficiaries at the start of their work and were also serving as a link between the DSCTPS and the beneficiaries; at community level, the baseline study has revealed that the social support programme is being facilitated through local structures called Community Social Support Committees (CSSCs). The committees were noted to be functional, and able to manage any cases pertaining to social support programme.

Based on the feedback from the beneficiaries through Focus Group Discussions at Kanduku 1 in Mwanza, it was observed that the committee was in the forefront in registering the beneficiaries to participate in the program. They also provided advice on other things such as how the money received can be utilized and how grievances could be resolved. In some instance, they have incorporated a grievance management sub-committee which handles such issues. The committee is also expected to follow up on school children who are not being supported by the program as well as registering new child born in households as well as following up on beneficiaries who have died and are no longer supposed to benefit from the programme.

4.18 Use of Money from SCT

This study has established that a wide array existed on use of the money that beneficiaries receive from SCTP. Communities of Tombokamwa in Chikwawa indicated that apart from buying food, they also use the money for supporting their children in buying some school learning materials such as exercise books and other necessities. Some of beneficiaries reported using the money to buy kitchen utensils and blankets. Others invest in farming buy using the money to buy chemical fertilizer. This was reported in Mzimba, Traditional Authority Kapingo, Sibande, Elamuleni cluster. The beneficiaries in Neno indicated that they were using the money to invest in off-farm small businesses, while using the money to take care of the sick was reported by beneficiaries of Zomba, Masala 2 village.

The study has shown that SCT is, therefore, enhancing the livelihood security of the benefitting households and is also contributing towards resilience building of the households towards climatic shocks. This can be seen from where the communities are engaging in off-farm activities such as investment in the small scale businesses. The businesses provide a fall back in times of climate shocks such as crop failure. Focus group discussions in different districts showed that on average, beneficiaries were receiving a bi-monthly total of MK11,379.62 although the actual amount varied from household to household depending on the number of eligible members staying in that particular household. There were no significant differences between male-headed households compared to the female-headed households in terms of the average amount of cash received. Female-headed household had on average received MK11,287.37 while the make-headed households received a total of MK11, 640.67. Similarly, differences were observed across the 7 districts although the differences were not very significant. Refer to the **figure 30** below.

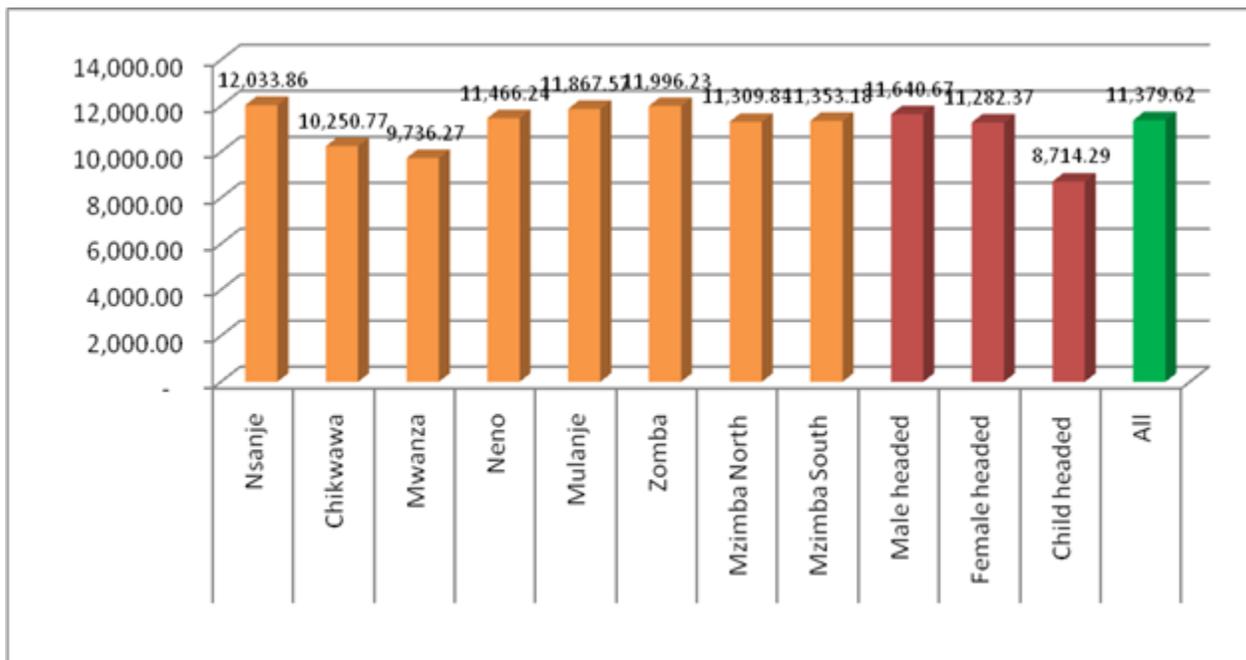


Figure 30: Mean amount (MK) of money received from cash transfer programme

The frequency cash distribution was almost similar across the 7 districts. It was observed that the Government distributed the cash every two months although there were scenarios where the distribution was done after 4 months due to beneficiaries missing out on pay cycle. When such cases arise, beneficiaries are still paid in arrears the equivalent to the amount.

Asked on whether beneficiaries were satisfied with the amount of cash they received from the SCTP, results showed that slightly below half (47.6%) of the respondents showed that were satisfied with the cash transfer programme although an almost half (52.4%) of the respondents stated that they were not satisfied with the SCTP (Table 18 Below). Based on the district-specific data, results showed that there were more beneficiaries in Mzimba North (52%) seconded by Mwanza (48.8%) who expressed satisfaction with the cash transfer programme while Zomba and Mzimba North had the lowest number of beneficiaries who expressed not being satisfied with the SCTP (refer to **Table 18** below).

Table 18: Adequacy of the money received

Category	Description	No	Yes
District	Nsanje	54.4	45.6
	Chikwawa	52.8	47.2
	Mwanza	51.2	48.8
	Neno	58.5	41.5
	Mulanje	55.3	44.7
	Zomba	48.8	51.2
	Mzimba North	48	52
	Mzimba South	52.9	47.1
HH Headship	Male-headed	52.5	47.5
	Female-headed	52.6	47.4
All	All	52.4	47.6

There were a number of reasons why the beneficiaries were not happy with the SCTP in their areas. The most common reasons for dissatisfaction with the programme is that they considered the money not enough to meet their household needs, They had to wait for long to be served during the collection of their cash, other still expressed sentiments such as the payment point being too far from the beneficiary household (**Figure 31** below).

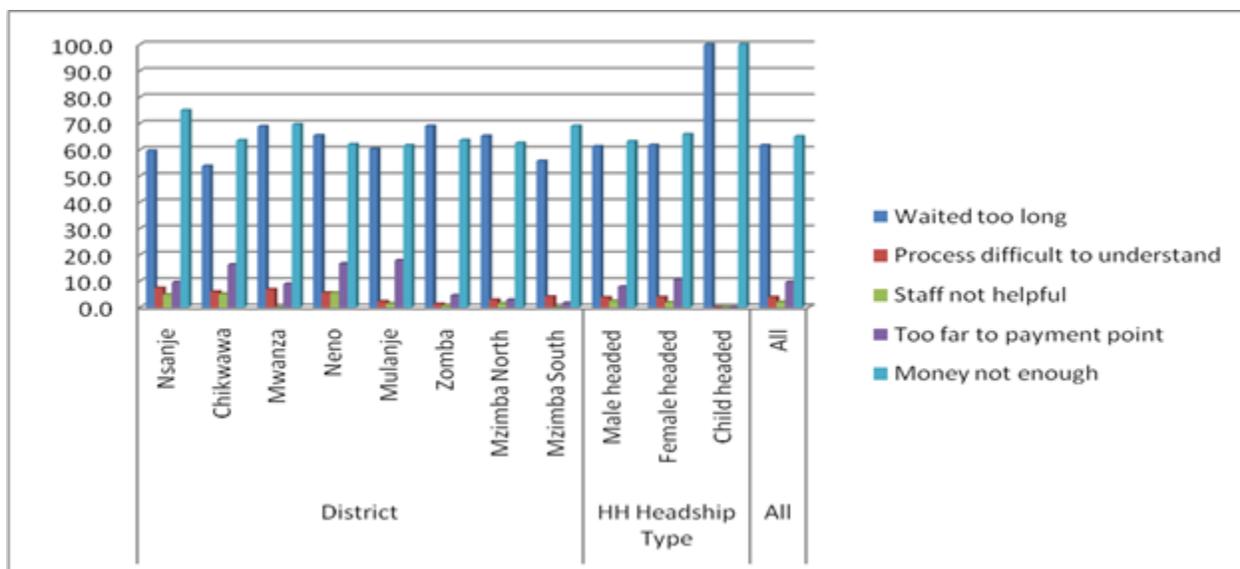


Figure 31: Reasons for dissatisfaction with the money received

Additionally, there were also other challenges related to the implementation of the SCT which mostly linked to the following issues:

1. Delays in distributing money to beneficiaries. Sometimes the money came after 4 months and at this point beneficiaries had already engaged in borrowing as such the money received was only meant to pay back the accumulated debts
2. Poor communication in informing the communities on the actual dates of cash distribution
3. Mobility was also a challenge; the community social welfare committees travelled long distances to visit the beneficiaries' voluntary on foot.
4. Sometimes Cash distributors came with unchanged money which delayed the cash distribution process.

Similarly, results from the Focus Group Discussion and Key Informant Interviews with the Social Welfare Assistants indicated that the beneficiaries were satisfied with the criteria mainly used to select the beneficiaries of the cash transfer programme because most of the beneficiaries participating are eligible households to benefit from the program. Only in few instances such as in Traditional Authority Kanduku in Kanduku Cluster, Mwanza District, where through the focus group discussions, the communities indicated that they were not satisfied with the selection criteria in their community for the program included some well to do households. The project should, therefore, ensure that the set criterion is followed and verifications are done on time.

4.19 Village Savings and Loan Schemes (VSL)

A Village Savings and Loans (VSL) program is a micro-loan scheme aimed at promoting a culture of savings and investment in rural and remote communities far away from formal financial institutions which provided services in cities and other urban centres. Popularly known as Banki Mkhonde in local Chichewa dialect meaning a “Village Bank”, this scheme is increasingly becoming an important vehicle for community empowerment through income generation. A VSL group a self-selecting, unregistered and informal group of individuals who pool their money into a fund from which members can borrow. VSL groups are usually made up of 10 -25 people each and include a Chairperson, Secretary, Treasurer and members. The study established that 87.7% of the households had heard about VSL compared to 13% who had not heard about VSL. Mzimba North and Neno were the two districts where beneficiaries had heard about the VSL the highest. The sources for VSL information were from friends/family/colleagues (94.7%), Government staff (9.1%), Village Agent (12.6%), organized community meetings by Village head (21.5%), and CBO meetings (3.8%). **Figure 32** shows the major sources of information on VSL.

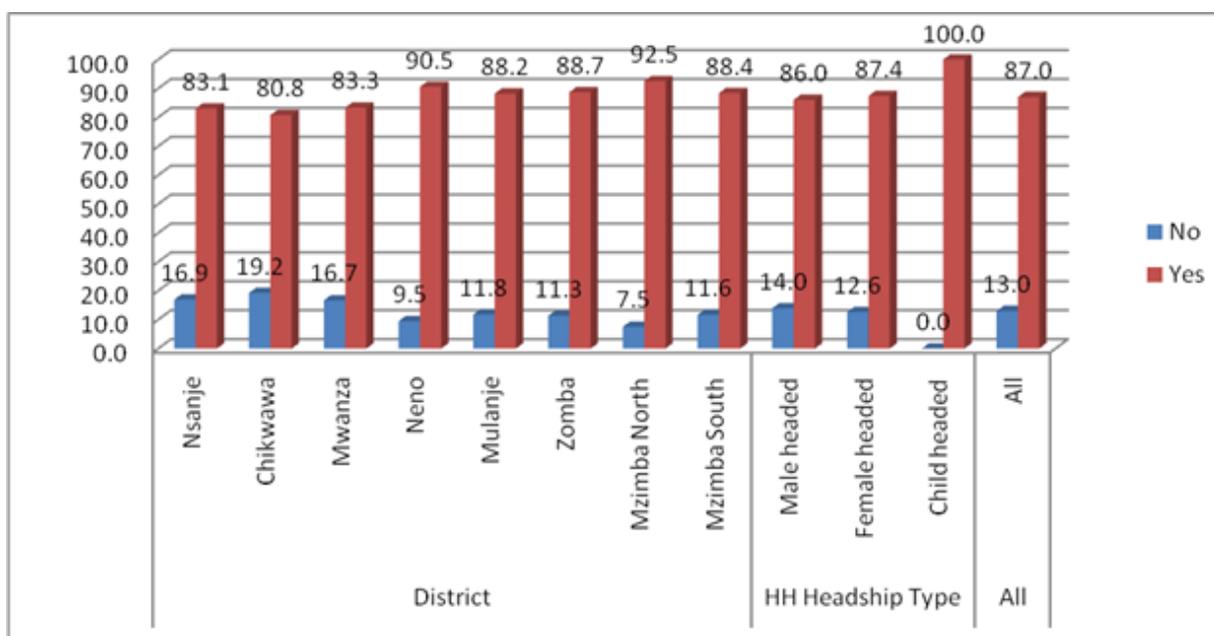


Figure 32: Knowledge of VSL

Results also showed that despite the majority hearing about the VSL schemes in their communities, not many family members were participating in them. Findings showed that only 28.3% of the beneficiaries in the target districts were participating in VSL activities. The reason behind low participation was that as indicated in the FGDs revealed that beneficiaries lacked initial capital to invest in the VSL activities. Across the districts, Nsanje had the highest number of beneficiaries who were in VSL with over 46.8% followed by Chikwawa which had 38.1% of the household's member who belonged to a VSL group while in Mzimba North and Neno, about 36.3% and 34.7% of household members belonged to a VSL group respectively as shown in **figure 33** below.

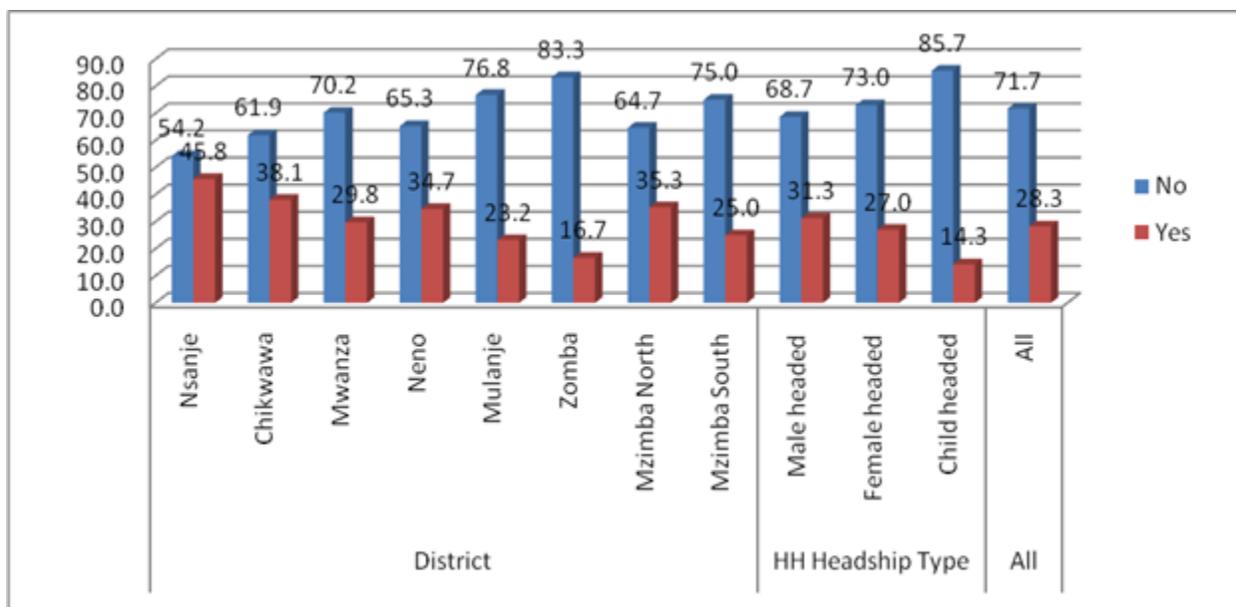


Figure 33: Is there a VSL member in the Family?

In terms of training in VSL, results showed that most cash transfer beneficiaries were not trained in the VSL concept as reported by 88.5% of the respondents. Only about 12% acknowledged having received any training in the VSL concept and these reported that they got the training from various sources ranging from village agent (45.8%), NGO/INGO (43.8%), government staff (20.4%), fellow beneficiary or another VSL member (23%) and the least source of training was the lead farmer (0.6%)

4.20 Cross-Cutting Issues

4.20.1 HIV and AIDS, Gender and Women Empowerment

Results further showed that 94.9% of the community members including women were able to access HIV/AIDS information through the following sources: hospital, Health Extension Workers (HSA), District Health Open Days and Agricultural Shows. The National Aids Commission through local CBOs is also implementing HIV/AIDS information dissemination activities and this also helped to spread the information on HIV/AIDS and women economic empowerment. On gender roles, 78.8% of women and girls were reported to be involved in development activities in the communities. The common roles held included planning for development activities, DRR activities and leadership positions. Similarly, on women economic empowerment, results from the individual interviews showed that girls and women were involved in issues of community development as reported by the beneficiaries themselves although their involvement was mostly in membership of clubs and committees and not necessarily in leadership positions. Results from the key informant interviews indicated that there were a number of strategies that are being employed to promote women economic empowerment in the 7 districts. Some of the activities being implemented included promotion of Banki Khonde popularly known as Village Savings and Loan Scheme

1. Promotion of farming and access to credit for women farmers
2. Promotion of small-scale businesses particularly those that target women farmers
3. Ensuring that communities are sensitized to the evils of Gender-Based Violence in their families

4.20.2 Access to Safe and Clean Water

The importance of access to safe drinking water is underlined by the fact that it is one of the SDGs and MGDSIII indicators. A household is considered to have access to safe drinking water if the source of water is piped into the dwelling, piped into the yard or plot, a communal standpipe, a protected well in yard or plot, protected public well, borehole only in rural areas, tanker truck or bowser and bottled water. Results showed that the majority of the households were accessing safe water or clean water through various sources such as 78.7% of the households were using borehole/ tube-well, while 6.4% got their water from public taps/standpipes. Others were accessing water from surface wells (rivers/ponds) (5.4%) and accessing water through unprotected dug wells (3.0%) and having piped water into the yard or directly into the house (1.5%). Access of clean water from the borehole was higher in the study compared to the Malawi Demographic and Health Surveys (2016), which showed that 87% of the households had access to clean water of which only 63% were accessing it from the borehole. Although the results showed higher access to boreholes, findings from the focus group discussions showed that some households were drinking water from an unprotected dug well and surface water from irrigation channels/schemes such as in Zomba, Mulanje and Nsanje.

4.20.3 Energy Sources and Cooking Stoves

Energy sources is also an important aspect of rural livelihoods particularly as it relates to food preparation and nutrition. There were a number of energy sources that communities were using for cooking and heating. However, the majority were using firewood as the main source of energy and this was mentioned by 84.6% of the households interviewed. Other households were using straws (6.3%) and maize stalks for cooking as reported by 7.1% of the household. Respondents were also asked how they sourced the firewood which was the most prevalent means of cooking. Results showed that the majority of the beneficiaries sourced the firewood from bush/hill (77.5%) followed by those that got the firewood from the village forest (39.8%), and sourced from own woodlot (19.2%) and community woodlot (12.5%). Asked on whether communities were aware and had ever used the energy efficient cooking stoves, results showed that only 48.9% of the respondents had ever used energy efficient cooking stoves. In terms of the district-specific findings, results showed that Zomba had the highest percentage of respondents who had ever used an energy efficient cooking stove (69%) followed by Mzimba South (65.1%) and Mzimba North with over 64.7% have used these types of stoves and Mulanje (63%). The least number of respondents to have ever used an energy efficient cooking stove was from Mwanza with only 10.3% had ever used an energy saving cooking stove.

5.0 CONCLUSIONS

From the results above, the following conclusions can be made:

- The baseline study managed to reach a total of 1517 households which were sampled from the SCTP beneficiary list that was available for each of the 7 districts. In terms of the gender of the respondents, results showed that more females (1198) were interviewed compared to their male counterpart (319) representing 79% and 21% of the total sample size respectively. This finding reflected the beneficiary household listings which was used to select households, which also showed a higher proportion of female SCTP beneficiaries compared to their male counterpart.
- In terms of household headship, results showed that most of the sampled beneficiaries were coming from female-headed households with an overall of 68.3% compared to male-headed households which had an overall percentage of 31.2 %. There were very few cases of child-headed households with only 7 beneficiaries representing 0.5% reporting coming from child-headed households. Mulanje (77.1%) and Mwanza (81.0%) had slightly higher numbers of female-headed households while Mzimba South (54.9%), Mzimba North (58.2%) and Neno (60%) had slightly lower proportions of female-headed households compared to the male-headed households.
- Approximately 72 percent of the SCTP beneficiaries is classified as a 'dependent' (under 18 or over 64 years), yielding a dependency ratio of 2.6. A dependency ratio of 2.6 means that each person in the prime-age group supports approximately three children or elderly persons. The high dependency ratio of the SCTP-eligible sample is not surprising as one of the program's household eligibility criteria is labor constraint, which is precisely aimed at targeting such households.
- In terms household labor availability, results showed that only 28.1% of the total household members included in the sample were in the active age group (19-64 years), while 15.9% of the sampled members were under 5 years, 32.9% were between 6-18years and 23.2% were above 64 years old.
- In terms of land holding sizes, the overall mean land holding size was reported as 0.66 ha per household with Mzimba South having the highest average land holdings of 1.06ha per household followed by Mzimba North with an average of 0.94ha per household. Chikwawa and Neno were third with an average land holding size of 0.69ha. Mwanza had the lowest land holding size was from Mulanje with an average of 0.47ha and Zomba with 0.48ha respectively.
- Results indicated that very few households owned major livestock (Cattle, goats, pigs) (29.5%). Similarly, results showed that only 13.2% of the respondents had an income generating activities that was used to source additional income, while only 0.1% had a formal employment.
- The overwhelming majority of the households had at least one hoe (97.6%) owned land as a major asset followed by a hoe (94.9%), This was followed by those that owned a sickle (28.9%), axe (36.1%) and panga knife (28.2%) and more than a third had bicycles (11.7%). Significantly, although the Government is promoting treadle pumps to enhance traditional

irrigation methods, at the time of the survey, only 2.6% of the sampled households actually owned such pumps. There is still a lower ownership of productive assets such as treadle pump, ox cart and bicycle and also low ownership of livestock.

- The majority of the households across the 7 districts relied on crop production and sale as their primary sources of livelihood. This was reported by 47.0% of the male-headed households and 37.4% of the female-headed households. Overall, over 39.4% of the respondents depended on crop production for livelihood.
- The majority of the beneficiaries have suffered climate related shocks for almost 3 years now starting from the flooding in 2015 which mostly affected households in Nsanje (68.4%), Chikwawa (53.8%) Mulanje (32.1%) and Zomba district (16.2%) and the prolonged dry spell in 2017 which mostly affected households in Neno (71.4%), Mwanza (63.2%), Zomba (73.5%), Mzimba South (78.3%) and Mzimba North (65.7% respectively and in 2018 where the majority of the households reported facing another prolonged dry spell which mostly affected Zomba district (72.7%).
- On crop diversification, result showed that the majority of households (81.2%) cultivated between two to three crops. This was seconded by those that cultivated between four to six crops (11.8%). Very few households cultivated more than six crops and 11.9% of the households cultivated six or more crops. These results demonstrated that overall, there was a high crop diversity in the farming systems of most households.
- On Crop Diversification Index (CDI) which is an index of concentration and diversity of crops within the farming system, results showed that average diversification index for the sampled households was 0.61 with a standard deviation of 0.17.
- In terms of the average number of months of food deficit in targeted households, results showed that the average number of months of food deficit in the targeted households was 7.6 months with female-headed households having higher food deficit months (7.9 months) compared to their male-headed households (7.4 months).
- On Coping Strategy Index, results showed that the overall CSI for the sampled households was 17.20. The average CSI did not vary significantly among the seven district surveyed with Neno having the highest CSI of (23.38) followed by Mulanje with a CSI 18.17. The lowest CSI was reported in Mzimba South and Mzimba North due to a slightly better harvest last season that the other 5 districts.
- On dietary diversity, result showed that the overall average HDDS was 4.4. There was a higher HDD in male-headed households (4.6) compared to female-headed households (4.3) although the difference was not significant. In terms of the district specific HDDS, results further showed that Mzimba South (4.8) had a highest HDDS compared to the other districts and was followed by both Mzimba North (4.7) and Nsanje (4.7) respectively. The lowest HDDS was recorded in Mulanje at only 4.0
- In terms of the MAD, results further showed that only 43.0% of the children were meeting the minimum acceptable meal frequency and only 20.9% were meeting the minimum dietary diversity. In terms of the percentage of children meeting the minimum acceptable diet (MAD), results showed that only 8.1% of the children 6-23 were meeting the MAD
- On BMI, the prevalence of underweight among women of reproductive age showed that 10.5% of the women were underweight while the majority (62.9%) of women interviewed

were within the normal range of BMI. About 18.6% and 9.1% were classified as overweight and obese respectively

- In terms of the individual soil and water conservation, results showed that the most commonly adopted soil and water conservation were Box Ridges which was reported by 36.7% of all the respondents. This was followed by contour ploughing (27.5%), mulching (24.2%) and pit planting (17.1%) and zero tillage (14.2%). In terms of district specific adoption of soil and water technologies, results showed that mulching was most popular in Nsanje where 45.5% of the respondents reported using it. Terracing was most popular in Mwanza where a total of 22.2% of the beneficiaries reported it.
- In terms of knowledge of three strategies to enhance individual and community resilience in the communities, results showed that only 21.9% of the beneficiaries had knowledge on three strategies to enhance individual and community resilience while about 78.1% of the beneficiaries did not have knowledge of three strategies of enhancing individual and community resilience to climate related disasters. This also reflected the high levels of vulnerability that communities were exposed to considering that they were not aware of how they could promote individual or community resilience.
- On early Warning systems, results showed that was a small base of indigenous early warning signs for forecasting climatic hazards used to make necessary livelihood adjustments. However, consultations with key informants did not show that there were clear strategies of harnessing them to augment the scientific-based early warning system. The study did not find evidence of documentation of the early warning systems, meaning, it was mostly based on recalling.
- On institutional setup for the cash transfer programme, results showed that virtually all the seven districts had functioning district and community social support committees which were trained in the management of the programme including start of the programme in beneficiary targeting and handling of cases emanating from the implementation. These structures represent the coordination mechanism of the Malawi Social Support Programme at district and community level. Although they are existent at district level, results showed that the District Social Support Committee do not meet frequently due to funding. At community level, the community social support committees are available and active in working with the cash transfer beneficiaries

6.0 RECOMMENDATIONS FOR PROGRAMMING

- Since most of the programme beneficiaries were coming from female-headed households, there should be a deliberate attempt to design activities that will superficially target these female-headed households who are in the majority in order to build their long term resilience. Some of the interventions that could be considered include provision of startup capital to venture into small-scale businesses in order to realize additional income to support the households in the event of experiencing a particular shock. Similar interventions should also focus on direct support to the disabled and chronically ill people who are equally more vulnerable to climate related shocks.
- Since the results showed that there was still a lower ownership of productive assets and livestock, the PRO-Resilience programme should make a deliberate effort to sensitize the cash transfer beneficiaries to invest some of their income into these productive assets to achieve long-term resilience.
- Considering the low ownership of livestock amongst Social Cash Transfer beneficiaries, the program can promote the rearing of small livestock like goats and poultry especially for Chikwawa, Mzimba and Nsanje, in order to increase household assets available for use when disasters strike. Livestock provides assets which can easily be sold to meet immediate cash needs of the beneficiaries in the event of disasters. Beneficiaries should be trained on improved goat and local poultry management and possibly link with other community based service providers for veterinary services and livestock feeding practices.
- Since crop production sales remained a significant source of livelihood for some of the beneficiaries, deliberate attempt should be made by the programme to facilitate access by the beneficiaries to agricultural production inputs such as both organic and inorganic fertilizers and improved seed in order to realize higher yields. Special consideration should be made for beneficiaries in Mzimba South, Mzimba North, Chikwawa and Zomba who have considerable pieces of land for cultivation but lack basic seed and fertilizer inputs to increase their production.
- Considering the frequency and severity of climate related shocks and vulnerability experienced in these areas, it is recommended that deliberate attempt should be made by the project to sensitize the beneficiaries on these shocks and vulnerabilities as well as devise strategies to mitigate them. One of the areas would be to strengthen the early warning systems already existing and reported in the targeted districts
- Considering the higher number of months of food deficit which will potentially affect household food security, it is recommended that deliberate measures should be taken by the consortium to provide some cash top-ups to support the beneficiaries access basic food commodities on the market during the next 4-5 months so that they are not significantly affected by food insecurities which may also affect their participation in the implementation of the programme. This will be critical in districts such as Nsanje, Chikwawa, Zomba, Mwanza, Neno and Mulanje where there was a higher food deficit gap. Special attention should be paid to the food security needs of

- women of reproductive ages and children as results from the study have shown that only a few of the women and children between 6-23 months are meeting the necessary dietary intake. For communities in Mzimba who were fairly better off in terms of food security, they could be encouraged to establish small-scale irrigation schemes in order to be able to grow fast maturing crop varieties in order to supplement their food requirements particularly during the lean period from December to March 2019.
- Considering the majority of beneficiaries falling in the low dietary diversity category, the programme Interventions should generally focus on the promotion of crop diversity and home gardens with diverse vegetable and fruit production. This can be done, for example, through distributing crop, vegetable and fruits seeds, training farmers on home gardening and the importance of crop diversity, conducting study trips for farmers to learn about home gardening and setting up model home gardens for community learning.
 - Considering the higher dependency on maize as staple food, which is prone to climate related shocks, the study recommends food diversification at household level through production of other equally important staple foods such as cassava and sweet potato in districts such as Mulanje, Zomba, Mzimba, Mwanza and Neno while other equally consumed foods such as millet and sorghum can be promoted in districts such as Chikwawa and Nsanje to supplement households starch needs.
 - Considering the low levels of knowledge of scientific early warning systems and very little documentation of the indigenous early warning system, the study recommends that the programme should facilitate further in-depth study of the indigenous early warning systems existing in the project impact areas and document them as to enhance disaster mitigation programming. The programme should also facilitate installation of other scientific early warning systems such as hydrometers, radios, cell phones and rain gauges in all the project areas to complement the existing indigenous early warning systems prevalent in the communities.
 - In order to strengthen the resilience of the farming systems and production base, there is need for the to move towards catchment areas and watershed management approaches to improve natural resources management and build long term resilience, Interventions could focus on techniques such as box ridges, planting Vetiver grass around farms, practicing conservation agriculture, agroforestry, to conserve the catchment/natural resource areas including river banks protection.
 - The programme should make deliberate effort should be made to link the SCTP beneficiaries to the village savings and credit groups in order to encourage a culture of saving part of the money received in order for them to be able to invest in small-scale businesses or in livestock asset to buffer the households in event of shock or disasters.
 - Considering the challenges related to coordination of the social protection issues at national and district level, the study recommends that there should be a deliberate effort towards promoting improved coordination between different stakeholders in the sector. Various entities needs to collaboration to work together in order to attain one goal while sharing the lessons learnt and best practices in social protection

programming. This will require mapping out roles and responsibilities for key actors, articulating areas of focus and establishing regular coordination meetings to devise action plan and share feedback.

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ANNEX 1: LIST OF PEOPLE CONSULTED

The study engaged a number of staff and stakeholders in the targeted districts as shown in **table 19** below

Table 19: List of staff and stakeholders consulted

Name of person	Organization	Position	Contact Numbers
Felix Mtonda	Save the Children -Zomba	Programme Manager	0991059483
Arthur Chibwana	Christian Aid	MEAL Manager	0884715707
Aston Mulwafu	United Purpose	M & E Coordinator	0999586968
Esther Mweso	United Purpose	Programme Manager	0888863823
Funny Kamanga	Save the Children -Zomba	M & E Officer	0992285930
Chris Mjima	Concern World wide	Livelihood & resilience Coordinator	0888402966
Nozgenji Bilima	Concern Worldwide	Project Manager	0884448709
Gift Mwembe	Concern World wide	M & E Officer	0999 008 970
Duncan Munyowa	United Purpose	Project Coordinator	0888898550
Rose Harawa	United Purpose	M & E Officer	0994789008
Gerald Kossamu	Care International in Malawi	Project Coordinator	0888163714
Bright Chihana	SOLDEV	M&E Officer	0888683480
George Gopani	Mzimba South District Council	Disaster Risk Management Officer	0993728809
Humphrey Magalasi	District Council - Nsanje	Assistant Disaster Risk Manager Officer	0888242086
John Chanyenga	District Agriculture Development Office	Agriculture Extension Development Officer	0996651648
Luka Dhlovu	KamandoMvula Cluster – Mzimba	Cluster Chair	0884061296
Edwin Simkoko	Luweledzi EPA	AEDC	0884303062
McGion Ngwira	Khosolo EPA	AEDC	0882342534

Phillimon Moyo	Khosolo Cluster	Community Social Support Committee Chair	0884655675
Medson Banda	Chapelekeza Cluster ——— –Nsanje	Community Social Support Committee Chair	0994331022
Grey Kalembeni	Fumphe Social Support Committee ——— Chikwawa	Community Social Support Committee Chair	0886196736
Francis Meke	Nankumba Cluster ——— Chikwawa	Community Social Support Committee Chair	0882024076
Martin Madise	Kakombwe Cluster	VCD & Community Social Support Committee Chair	0884004753
Shando Sato	Chikombe Cluster – Chikwawa	Community Social Support Committee Chair	0888936716
Lazarus Mpapira	Thundu Cluster	Community Social Support Committee Cluster	0881020216
Michael Daniel	Phwadzi Cluster Chikwawa	Community Social Support Committee Chair	0882702084
Kingsley Maneya	Mtombokamwa Cluster Chikwawa	Community Social Support Committee Chair	0888936716
Kumbukani Kauwa	Eagles Relief	Field Facilitator	09996131211
Emmanuel Mbenuka	Eagles Relief	Filed Facilitator	0995372506
Robert Malemba	DADO Office Nsanje	Crops Officer	0999331006
Mr Dupu	DADO Office Zomba	Crops Officer	0884467757
Joseph Stephano	Social Welfare Office – Zomba	District Social Welfare Officer	0888512453
Frank Kowera	Eagles Relief - Chikwawa	Field Facilitator	0999142765
Mphatso	Eagles Relief – Chikwawa	Field Facilitator	0883476876

Charles Mhango	Engucwini EPA – Mzimba North	AEDO	0888690678
John Kaonga	DADO Office – Mzimba North	DRR Officer/Crop Officer	0881085379
Mrs Phewa	DADO Office –Mzimba North	Assistant DADO	0999325675
Edward Chisanga	District Social Welfare Office –Mzimba North	Social Welfare Officer	0884444848
Shadreck Mingu	District Social Welfare Office – Mzimba South	Social Welfare Officer	0884586653
Patricia Moyo	Kavitowe Cluster	Community Social Support Committee Chair	0883142351
F. Nyondo	DADO – Mzimba South	Crops Officer	0888359414

ANNEX 2: DATA COLLECTION TOOLS USED IN THE STUDY



BASELINE
QUESTIONNAIRE-PR



CHECKLIST_PROACT
RESILIENCE_FGDs_F.



KEY INFORMANT
INTERVIEW GUIDE W