

**Baseline survey for Project Mazao: A study into current agricultural practices and possible alternative sustainable livelihoods in Mkushi, Zambia**



**February 2015**



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## **Abbreviations and Acronyms**

Acquired Immuno Deficiency Syndrome (AIDS)

Building Resources Across Communities (BRAC)

Climate and Development Knowledge Network (CDKN)

Department for International Development (DFID)

Development Aid from People to People ( DAPP)

Focus Group Discussions (FGDs)

Food Reserves Agency (FRA)

Human Immunodeficiency Virus (HIV)

Humanity Africa (HA)

Micro Finance Institutions (MFIs)

Millennium Development Goal (MDG)

Sustainable Livelihoods Framework (SLF)

Zambian National Farmers' Union (ZNFU)

## **Acknowledgements**

The baseline survey for Humanity Africa (HA) was conducted by a group of staff, volunteers and consultants of HA– all of whom have played an integral role in the understanding of the environmental and socio-economic context of Mkushi, Zambia. Although the report has been generated by HA, the organisation would not have been able to come to its conclusions without the direct and indirect contributions of the Ministry of Agriculture and its representatives on the ground in Mkushi, Mkushi District Commissioner's office, Zambian National Farmers' Union, translators, key stakeholders and the many beneficiaries who kindly agreed to take part in the survey.

Although this report has been produced by HA, the organisation does not claim its findings to be conclusive ad infinitum. Humanity Africa expects to continue developing its knowledge base through similar surveys and investigations in the future and in Zambia. By developing HA's knowledge base, its projects will become more effective for Zambia.

## Conceptual framework

The baseline survey employed The Sustainable Livelihood Framework (SLF), adapted from Department for International Development (DFID) 2002, and was used to lay the foundation of the baseline survey for smallholder farmers in Mkushi. It enabled the team to assume a multi-dimensional understanding of poverty and livelihoods and how all the individual factors are interlinked. Factors involved in the analysis were livelihood options (both hypothetical and in practice), access to advice and information for livelihoods sustainability and development, the underlying factors verify, people's access to resources and their diverse livelihoods activities, and the relationship between relevant factors at micro and intermediate levels. The framework has also allowed assessment and prioritization of potential interventions. The framework reveals that every household is endowed with livelihoods assets comprising of natural, physical, human, financial, and social capital. These assets affect various livelihood strategies which may take the lead alone or in combination (AgDevco, 2012). The household livelihoods context is directly linked to external factors such as shocks, trends and seasonality – something that was apparent during the overall study, thus allowing a deeper understanding of the current condition of rural farmers. In general, Zambia benefits from a stable political atmosphere that has enabled the country to economically progress steadily but slowly for over twenty years. Climatic shocks have affected the poorest and rural populations including seasonality in price, production and the overall lack of employment opportunities; contrary to this belief, internal migration is highest in these areas but employment lacks practicality. The study that involved mostly face-face interaction with rural farmers allowed an overall view of agricultural and livelihoods opportunities and threats, gender dynamics and their potential to move out of poverty. The overall conceptual framework for sustainable livelihoods is illustrated in Figure 1.

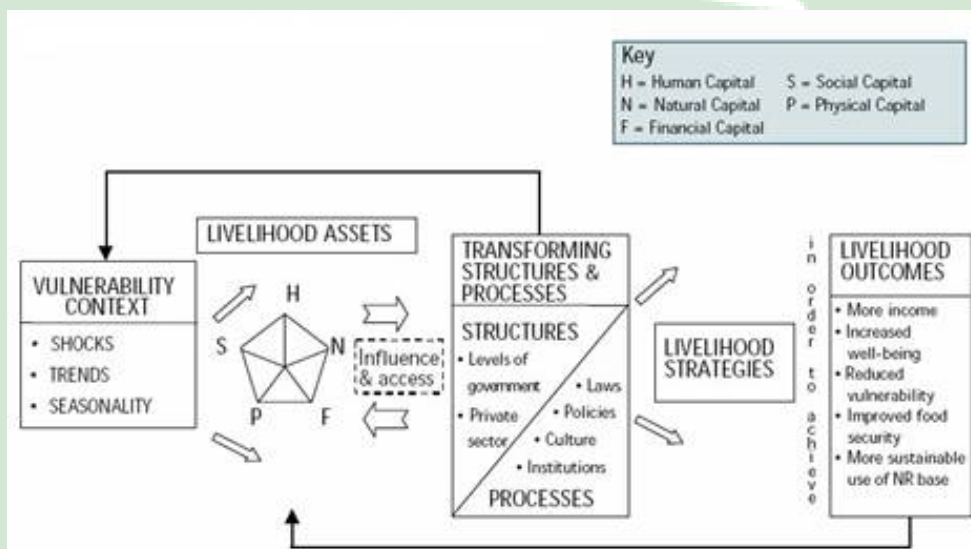


Figure 1 Sustainable Livelihood Framework, DFID, 2002

## ***Methodology***

The baseline survey employed mostly a qualitative study due to lack of available data in Mkushi and its current poverty statistics. Quantitative data was collected on a random basis to understand land availability for Mkushi residents, the bulk of crops produced for comparison studies and conclude the future of continued agricultural practices.

### Stage 1

#### Preliminary research

Desk study played a strong role in the development of this report, especially literature studies which allowed for the collection of background information. Reports such as District Situational Analysis and secondary data consisting of international reports, national and district based statistics, and additional literature were all collected before the baseline survey was conducted.

### Stage 2

#### Baseline survey tools

The following baseline tools were utilised:

1. **Focus Group Discussions:** Focus Group Discussions (FGDs) were carried out with farmers in Mkushi, allowing access to the voice of over 60 rural farmers working in subsistence farming, in leased land, or employees at external farm lands. The questionnaire was developed by the volunteer consultants of the organisation both from the UK and Zambia.
2. **Case Studies:** Case studies were extremely important to the organisation as it allowed a more personal overview of the rural farmers. Case studies documented overall problems associated with agriculture and family nutrition. Women were particularly chosen for case studies. This is due to the common view that women will have a better understanding of the overall family's nutritional needs. Women play an extremely strong role in the economic development of Zambia, with rural areas practicing gender roles in agricultural production and marketing. Case studies were particularly important in determining that rural Zambians have great potential to organise themselves, sometimes having successfully been a part of co-operatives in their villages.
3. **Photography and Videography:** Photography has been crucial to the development of case studies and the visual documentation of the current situation in Mkushi. They have acted as supplementary evidence to the data collected during the study.
4. **Key Informant Interviews:** Key informant interviews were carried out by key stakeholders such as the Mkushi District Commission, Zambian National Farmers Union (ZNFU), Community Development, representatives of the Ministry of Agriculture working at district level, community members and the general population.
5. **Household Interviews:** Ten household interviews were held through a formal semi-structured household questionnaire. The quality of the questionnaire was ensured, having been assessed by a national and local development expert with over 10 years of experience in agriculture and livelihoods at the rural level and significant experience working with Development Aid from People to People ( DAPP). Regular discussions with all consultants were held after interviews to assure that all questions asked were relevant. Interview techniques were discussed before the baseline survey was started.



6. Interview Audio Recordings: Due to the organisation primarily starting in the UK and its main consultants from Bangladesh, India, Kenya and the UK, the organisation decided it fit to record all interviews for quality and accuracy for information purposes. This has helped greatly in the development of this report, allowing us to go back to interviews from time to time to try drawing more information for the organisation's better understanding.

### Stage 3

#### Data analysis

A majority of the data that was collected was qualitative data. Although not an integral part of the study, the surveyors were successful in collecting some quantitative data with regards to the type of crops produced, households, labour farmers who are associated with during the year and income rates. Most of the data has been presented in a narration format, although some information has been presented in table format for easier assimilation.

### Stage 4

#### Dissemination of findings

This section describes our findings and our conclusive remarks on way forward.

#### Site Selection and Sampling

This baseline survey has gathered detailed data on the conditions and challenges of rural agricultural farmers in Mkushi, Zambia to assess farmer communities, the socio-economic and climatic shocks and challenges, food productivity relationship with HIV/AIDS, gender dimensions in rural Zambia, and finally conclude on the income livelihood opportunities available in rural Zambia. The gathered data from the baseline survey will overall improve the nutrition of family members. The goal of the survey was to measure the socio-economic indicators before HA implemented its projects in the field to then later realise impact of the organisation's projects. Overall we surveyed 60 rural farmers in Mkushi in various locations, with an assumption that we gathered data for a total of 240 community members through the 60 farmers.

Mkushi was selected particularly by the organisation as a start off point. Mkushi District is situated in the central province of the Republic of Zambia. The district covers an area of about 17,726 sq km and has an estimated population of 154,534 of which 77,536 (50.2%) are male and 76,998 (49.7%) are female as indicated in the 2010 census of population and Housing of Zambia (Population Summary Report 2012). Mkushi has three distinct seasons, namely the warm rainy season (November to April), the cool dry season (May to August) and the hot dry season (September to October). Most of the area falls within agro-ecological Zone II and receives an average annual rainfall of 950mm. The location was also chosen based on its remoteness and distance from the capital Lusaka – being a hard to reach area for various non-government projects. Data shows that 2 NGOs are currently working in Mkushi, mostly due to the location, but also because agriculture production is high in that area. The area has a relatively higher number of commercial farmers with continuing weakening of subsistence farmer wealth due to declining environmental situations. It has also been observed that the other NGOs in Zambia tend to focus much more on education, HIV/AIDs prevention and care, animal vaccination and child adoption, leaving a massive gap in food security and livelihood interventions.

Mkushi has a high Infant Mortality Rate of 72.7 to 108.0 deaths per 1,000 live births in comparison to all other districts showing on average 105.0 deaths with the exception of Mumbwa. In-migration is at highest in Mkushi, after Kabwe due to employment opportunities. This, although initially presumed to be a positive trend, through FGDs presented itself to be a problem in the long term, is later explained

in detail in the report. This baseline survey conducted with rural farmers through FGDs is all based on Customary land held by customary land tenure.<sup>1</sup>

The baseline survey provides a good insight into the conditions faced by rural farmers in Mkushi. The farmers were selected randomly through the representative of the Ministry of Agriculture in Mkushi. During the FGDs, closer scrutiny was given to female farmers, although it was quite common to encounter farmer groups where there was gender uniformity.

#### Methodological Challenges

Although the challenges were limited, they had some impact on the overall baseline survey:

- (i) The late and sometimes poor attendance of farmers to the focus group discussions in some areas
- (ii) The short time allocated for the data collection
- (iii) Limited volunteer consultants to complete report

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<sup>1</sup> Customary land tenure refers to the systems that most rural African communities operate to express and order ownership, possession, and access, and to regulate use and transfer. Unlike introduced landholding regimes, the norms of customary tenure derive from and are sustained by the community itself rather than the state or state law (statutory land tenure). Although the rules which a particular local community follows are known as customary law, they are rarely binding beyond that community. Customary land tenure is as much a social system as a legal code and from the former obtains its enormous resilience, continuity, and flexibility. Of critical importance to modern customary landholders is how far national law supports the land rights it delivers and the norms operated to sustain these.



## **Executive Summary**

The baseline survey of Humanity Africa was conducted to gain meaningful insight into the current situation of smallholder rural farmers in Mkushi. The goals were to understand how current livelihood trends are either succeeding or failing with the success indicator being good household nutrition i.e. everyone in the family receiving three proper meals a day, children attending school, gender balance in decision making and ability to generate surplus through livelihood incomes for reserves, investment or savings. Mkushi hails as a district with numerous agricultural projects where general or even intense poverty can go unnoticed. The survey captured real life scenarios and case studies of rural farmers, their family members and AIDS orphans. More than 60 farmers were interviewed during the baseline survey resulting in understanding the lives of approximately 240 community members with the assumption that each family consists of 4 family members, although the number is deemed to be much more due to high informal adoption rates.

## **Introduction**

Humanity Africa's entrepreneurial project is Project Mazao – a sustainable livelihoods project, which aims to ensure small scale farmers' households are food secure and provide improved livelihoods for approximately 300 farmers and 1500 household members and provide informational sessions for over 3000 community members in Mkushi, Zambia. The baseline survey was conducted to understand the current situation with regards to agriculture and livelihoods, paying close attention to the fact that more than 75% of Mkushi's population is dependent on rain-fed agriculture. The baseline survey will allow Humanity Africa to ascertain current climate, plan according to findings and use the information to study impact of its projects overtime. The baseline survey was also designed to look at more sensitive branches of economic disruption, including a health element to determine the situation of HIV, its impact on livelihoods, AIDS orphan run family contexts and general perception towards NGO activity in Mkushi.

## **Background to Humanity Africa and Project Mazao**

Humanity Africa is a registered Community Interest Company (CIC) in the UK with charitable aims and objectives. The organisation's goals are as follows:

*Humanity Africa's entire work is based on the United Nation's Sustainable Development Goals to eradicate extreme poverty and hunger by promoting sustainable agriculture and poultry and livestock farming techniques, encourage both subsistence farming and low scale commercial farming to improve the overall nutritional status of farmers and their families in Africa.*

Mazao means crop in Swahili – representing the organisation's aims and activities of ensuring household food security through agriculture and other alternative livelihoods by implementing climate friendly environmental farming and practices.

Zambia enjoys a stable political history and has a reduction of urban poverty from 40% in 1996 to 26% in 2010 to show for it (DFID, 2014). The revised DFID Operational Plan 2014 also provides an overview of Zambia's failure to reach Millennium Development Goal (MDG) 1 as 60% of Zambians still live in poverty and 42% are unable to meet even basic food needs. Household food frameworks are heavily deficient as only a quarter of children under two years old have a minimum acceptable diet and 40% of children under five years old are stunted, meaning they are chronically undernourished.

Based on the Department for International Development (DFID) report on 'Economic Development in Zambia', the country has seen steady economic growth; in spite of this, the impact is rarely seen nor

experienced by Zambians of whom 60% still live in poverty. The major cause behind this discrepancy and confusion is the mining industry which accounts for this economic growth but only employs around 5% of the national workforce. Approximately 80% of the Zambian working population is dependent on agricultural productivity. This has, in the past decade or so, proven to act against the agriculture-dependent population. The Climate and Development Knowledge Network (CDKN) report in 2014 indicates global warming to have considerable impact on the overall agricultural productivity of the country.

### ***Baseline Purpose and Objectives***

Historically Zambia is known to be extremely flood-prone – the 2006-2007 monsoon season resulting in heavy and long-term floods affected over 1.5 million people. But the country has also portrayed other climatic facades including severe droughts and flash floods. Similar to all developing countries, the majority population affected is the rural areas. Floods and drought go hand in hand with vector borne diseases – Zambia exemplifying one of the worst mortality rates due to malaria in South Africa. Droughts deplete fish stocks and increased savannas, lesser accessible water for livestock, but mainly the overall human population due to migration to areas with more available resources. Zambia is likely to face grave consequences as a result of climate change leading to erratic precipitation and less rain. Where a country like Zambia is reliant on rainfall for agricultural productivity and electricity, the nation will have to systematically adapt to climate change patterns to avoid the pitfalls of a problem that is least connected to the population's carbon footprint since independence in 1964.

Challenges in the methods included being unable to carry out more intensive interview sessions to understand individuals. As with most focus group discussions (FGDs), it is impossible to have an equal amount of information or responses from all participants, thus it limits our ability to gain the stories of "all." Hence a slightly generalised version of many farmers came through. Additionally, being in an FGD environment, we believe that attitudes and responses could have been clouded due to our presence.

### ***Characterisation of Growers on the Project***

A majority of the farmers interviewed were members of the Zambian National Farmers' Union – a national membership based organisation, with countrywide coverage, representing the agriculture industry. Specifically ZNFU represents small and large scale farmers and agribusinesses. The organisation is an informational resource allowing interested farmers to understand and predict future yields based on their choice of crops. The organisation also assists by disseminating information to farmers along with being the lobbying forerunner for agricultural matters at the operational level. Membership is based on annual fees.

Membership was also noted through Co-operatives that have been created and are now run by community members, who are also farmers. Predominantly women run, these co-ops allow women to invest in the co-op, build the asset base, loan to other members at an interest, and act as others' collateral – very similar to the approach applied in a microfinance environment in developing countries and through larger micro finance institutions (MFIs) such as ASA, BRAC and Grameen. Due to the co-ops being developed within small villages, amongst women who live within a mile distance of each other, leadership and trust are rarely questioned. The co-ops are revolutionary as they have unwritten but compulsory policy to assist those in need with HIV, who are members of the co-op.

A detail of the gender, household size, and marital status was collected during the baseline survey. It is estimated from the survey that gender affects the way in which household and livelihood responsibilities are allocated. Respondents were asked for basic information about all family members and about their extent of involvement in supporting the family. Every member of the household,

regardless of gender finds the need to become involved in agricultural production from a young age in order to support the overall family. Men and women generally work throughout their lives starting from puberty, thus the working age has been categorised from 13-68 years. Contrary to popular belief women are not household heads in Sub-Saharan Africa, it was noted that stereotypical gender roles are still rife. Younger women who have young children in the household usually take to the road side markets to market products instead of partaking in hands-on agriculture. Women in Mkushi work well into their 60s based on their health; they are responsible for child rearing and domestic chores and thus are more physically burdened than men. Schooling is not considered important in rural areas and most children transitioning into puberty find themselves working with their parents or relatives on farms to earn money or put food on the table.

During the collection of case studies, the organisation felt strongly to collect case studies of AIDS orphans, which gently touched on the gender and sexual violence in Zambia. The case study showed girls' sense of insecurity that affects her ability to attend school and travel long distances.

### ***Traditional crop and alternative livelihoods production trends***

Almost all farmers claim to grow particularly or a combination of the following: maize, soya, ground nuts, sweet potatoes, sugar beans, Irish potatoes, cassava, vegetables, rape, tomatoes, and carrots. Maize is the staple of Zambia and it is the main crop purchased by the Food Reserves Agency. It acts as both a cash crop and subsistence crop. Most farmers encounter one harvest per year allowing them to preserve enough for an entire year until the next harvest and sell the remaining at a small profit. Although government spending on subsidy comprises of 90% of its agricultural budgets, there is speculation that budget analysis of where it is spent is now a concern. Fertilisers are expensive and on the rise whereas the cost of maize remains the same since 2009 showing lower profit margins. Farmers can yield approximately 35 bags/acre with good management and will yield 8-15 bags/acre with poor management. Under general circumstances soya/lima will generate 6 bags each weighing 50 kgs. Late arrival of fertiliser prevents healthy harvest although it can bump yields up by a low margin. In previous times grain reserves were located in granaries outside the house but due to mounting pressure on food reserves, farmers now have to store inside their houses to prevent theft.

According to key informant interviews and FGDs with farmers maize remains the first choice of cultivation, being the staple and cash crop, which is sold to the Food Reserves Agency.

Due to most of the agriculture being rain fed, a lack of access to methods of irrigation, and barriers to irrigation that have become aggravated over time, most farmers have found it feasible to stretch themselves to growing or rearing whatever they can to try and ensure food security for themselves and their households. The pie charts below illustrate the types of livelihoods and crops produced/reared based on the participants of the baseline survey.

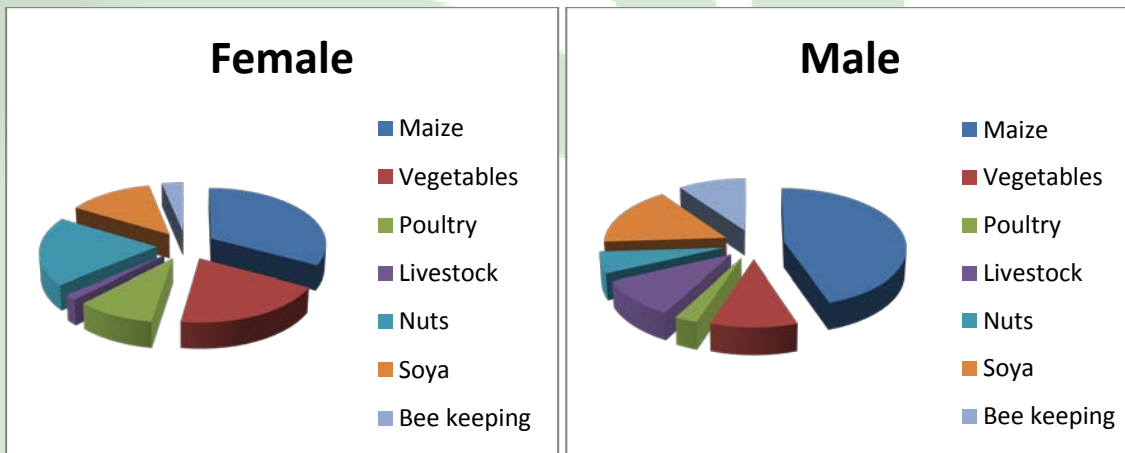


Figure 2 Female and male crop/food production trends

On the basis of the 2013 Gender Inequality Index and the noticeable disappointing position Zambia holds on gender inequality (135 out of 152), the organisation decided to explore how these factors influence food production in rural areas like Mkushi. It was noticed during meetings that traditional beliefs of men being household heads and stronger members in the family is still rife. Although female members did not report any incidences of gender based violence (both domestic and sexual), there was indication that men dominate household prominence and women are required to respect men. Based on this belief and the table above, men justified cattle, poultry and bee keeping as a 'man's job' while general or kitchen gardening (for vegetables) as that of a 'woman's job.' Note that in families with young children, the male members work in the field while the women are responsible for marketing produce them at the road side. Maize, being the primary staple food of Zambia, is something both genders contribute to in terms of production to maximise family food and economic reserves. There does not seem to be any connection between marital status and food production as observed and a variety was found in the production including single, married, widowed and divorced. A small attempt was made to understand the relationship between age and production. It was noticed that up until 60 most community members/rural farmers continue to work in the fields and play an integral role in the food production of the household. This reduces with age, where additional family members take up most of the physical labour. Due to the close knit family culture all children are adopted by extended family members or sometimes complete strangers – which is deemed to be an extremely positive aspect of Zambian culture; the negative side to this is an increased pressure on securing food for the family and an unexplored arena of domestic abuse that may happen due to struggle for food within the household.

Alternative livelihoods according to Mkushi rural farmers are based entirely on the belief that it can only be related to food products. Other livelihoods methods such as life skills and training were not seen as important or feasible during interviews; however, women showed some interest in the concept. Hence any form of vocational training would have to run in the form of a pilot in Mkushi. Some farmers have transitioned into brick laying as an occupation, becoming agro dealers, selling groceries, casual/day labouring and different merchandise but none consider them sustainable livelihoods

Based on the micro-credit fiasco that has hit the poorest in African communities and spiralled out of control, micro-credit may not be the best of practices to employ where consumerism cannot be controlled. Due to lower levels of technology to track lending practices, multiple borrowing has thrown general borrowers into deeper debts and an inability to pay off increasing interest rates every month.

During the baseline survey farmers discussed how female farmers take on the responsibility in the household to rear poultry and livestock. Alternative livelihoods can involve bee keeping, poultry,



livestock and fisheries. All alternative and main livelihoods are affected by HIV and AIDs, thus reducing the labour required. Failure to integrate women as key decision makers into the household has also exacerbated the problems and is made to grow 'women crops.'

Livestock and poultry are still very strong competitors for alternative livelihoods in Mkushi with a majority of farmers stating this to be the best route for a better and faster turnaround. Over 15 farmers personally talked of experiences which involved the selling of farm animals to support household basic needs. Poultry is highly favourable due to the turnaround time, available markets for the product and also a strong nutritional component on the household menu.

Livestock is carried out through communal rearing or commercial rearing, of which the former is more relevant for rural farmers. The success of livestock (cattle, goat, sheep, pigs and poultry) is heavily dependent on veterinary care available to limit mortality and prevent spread of disease – something that is very common in poultry. Lack of veterinary officer/vet or para-vets to train on livestock means livestock is unsustainable.

From the month of December-March, when grain reserves fall, farmers try to earn a living also by selling charcoal, brewing local drinks made from maize, and selling eggs. Farmers have noted that poultry and livestock are exceptional methods of support during struggling periods of low grain reserves, although few managed to explain their understanding of the nutritional value of protein in a diet.

Although fishery was noted during the baseline survey – no further information about it was obtained.

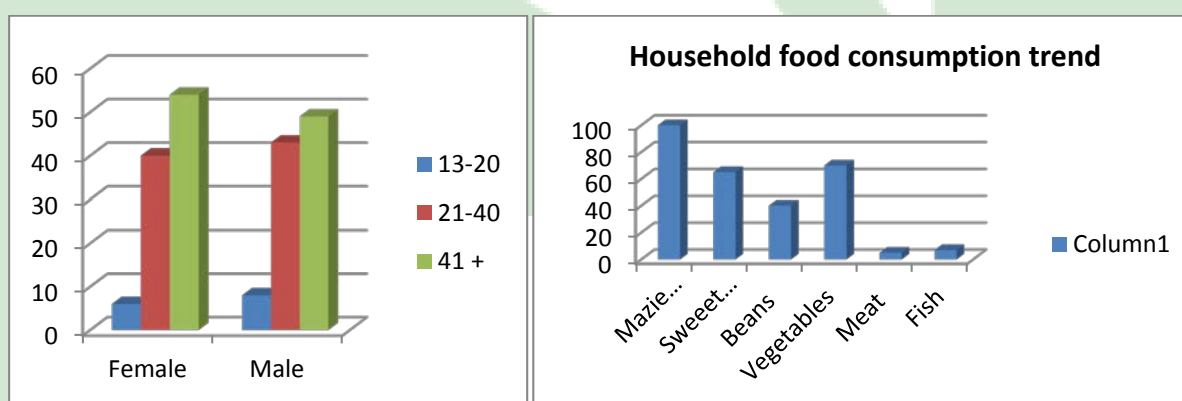


Figure 3 Relation between crop production and age; Household food consumption trends.

### Associations and Group Dynamics

A majority of the farmers interviewed during the baseline survey are members of the Zambian National Farmers Union (ZNFU), which gives them access to information, machinery, advice on economic development, to buy inputs at a better price, and also access to micro-credit. A majority of the farmers do not have a bank account due to lack of collateral and thus who do want credit, usually have to go through smaller micro-credit organisations. Mkushi farmers also have access to CETZAM and ZANACO that provide credit but most farmers spoke poorly of the organisations as they feel that they are ill regulated and thus they cannot trust such finance institutions. Farmers have noted the problems associated to credit including the take-over of household goods when farmers fail to repay the amount they have borrowed. Farmers have also over time learned to invest their time in training and developing individual and community knowledge base to get the most out of farming such as improved farming methods. One of the recent projects of ZNFU is to promote conservation farming as a pilot for 60 farmers. Traditional use of artificial fertilisers and hybrid seeds have helped produce

more crops, but access to seeds is always not available. The increased pressure to build reserves for the months of December – March has prompted the use of modern farming inputs but this is not always welcome as the majority of farmers still believe that use of artificial fertilisers or hybrid seeds will have a negative impact on the soil quality and affect future farming. Even then, there is a shift in the attitude happening right now as climate change becomes more serious.

As observed, Zambian farmers benefit greatly from knowledge and inputs, although the biggest challenge remains in acquiring input due to unavailability of funds. Paucity in knowledge of sustainable micro-credit practices puts rural farmers at risk of utilising funds properly and thus rules out micro-finance in certain circumstances. Community cohesion is extremely strong and people showed eagerness to work together for the general good of the community. However, this might be due to a lack of resources.

### ***Marketing of products***

One of the main problems highlighted by participants of the survey was lack or unavailability of markets. The alternatives available are:

- (i) Farmers selling to local traders and transporters who bulk up to sell the other companies
- (ii) Farmers selling directly to FRA
- (iii) Farmers selling their produce directly at roadsides
- (iv) Farmers who sell to transporters along the road side

In most cases the marketing was characterised by informal marketing and an almost absolute reliance on sales close to farmers' homes due to the distance from the main road to the homestead. Such markets are unreliable as they are not buying or selling hubs and thus there is no guarantee of selling. A common problem that is associated to this is lack of storing technology. Over 80 percent of the women selling food produce along the roadside were perishable goods such as tomatoes, leafy vegetables, potatoes, root vegetables etc. There are no standard buying mechanisms and thus selling is a risk that is taken every day. One of the main reasons behind farmers devoting much of their agricultural cultivating time on maize is the availability of market, the knowledge in place of irrigation needs and ability to reserve over a large time frame. It comes with its own risks of crop failure or low yields but this is considered to be a smaller risk than depending on perishable products.

The decision to change livelihoods trends with regards to agriculture is completely based on two aspects (i) training for best practices (ii) availability of markets. The organisation's meeting with key stakeholders included an interview with a commercial farm of 20,000 hectares producing tomatoes amongst its other products. Due to the volume of products, marketing is eased as more buyers are willing to travel into Mkushi to collect produce and market in the city or export. Community cohesion, necessary input and good agricultural training practices may be able to influence product types in the future.

### ***Food Security - Climate change and environmental***

Climate change as previously mentioned has had a detrimental impact on crop production – thus affecting food security. Lower levels of rainfall, flash floods and longer dry seasons have had massive impact on the environment. With most farmers depending on rain-fed agriculture, it is important to either see either artificial irrigation methods that could be applied, or find alternative livelihoods to satisfy household nutritional needs. According to the district analysis, the extreme impacts of global warming as a result of the greenhouse effect have devastating effects on livestock production and productivity. The phenomenon triggers unprecedented droughts, floods and diseases. Farmers can no longer be dependent on rains as most farmers claim that rains have been erratic, sometimes



delayed by over 2-3 months resulting in very low yield, poor crop production and a drying of grain reserves.

***“Ten years ago rain were on time, by 23<sup>rd</sup> October, plus minus 5 days. Today rains are months late,” Rodel Kunda (40 years), Mkushi subsistence farmer.***

Dry spells are seen as the major threat amongst rural farmers with average household expenditure rising due to increased family members who are adopted on the death of neighbours or relatives.

***“One of the supports that we need the most is access to motorised pumps so that we can irrigate our lands.” John Batonga (34 years), Mkushi subsistence farmer.***

The increase in asset transfer has direct correlation to the increased number of rural farmers engaged in employment in commercial farming. The general view is that it is a threat to rural farmers who cannot re-acquire the lands they once sold.

### ***Asset/land transfer and trends***

Change in asset transfer has become a worrying issue amongst rural farmers in Mkushi. This problem is strongly connected with climate change impacts. According to a UN document, in Zambia, land has since time immemorial been held under customary tenure, until the 1960s when freehold and leasehold tenure systems were introduced. Of the total land mass of the country amounting to 752,614, customary land is estimated to be 94 percent and state land is estimated at 6 percent. Cultivation patterns have been changing for a decade and it is no shock that more than 40 percent of landowners in Mkushi have either sold their land in entirety to others or parts of it. As a result of this the self-confidence of farmers has decreased, heightened sense of anxiety and depression sometimes kick in.

### **Recommendations**

Field consultation with key informants and potential beneficiaries produced varied recommendations on which the organisation is likely to act upon. The following are listed below:

- Training and development of Community Livestock promoters
- Training and supervision of poultry farmers
- Training and supervision of Livestock traders
- Establishing demonstration poultry farms
- Providing input supply to community livestock promoters, poultry and livestock farmers
- Partnering with specialised marketing companies to successfully market all produce generated by rural farmers in Mkushi
- Development of a resource centre for training and supervision of community agriculture promoters
- Training and supervision of Agriculture entrepreneurs
- Training and support of crop farmers
- Training and supervision of women traders

### **Conclusions**

The baseline survey has provided the Humanity Africa team and management to set the foundation for its ambitions to work with rural farmers in Mkushi, develop their skills and ensure that the UN goal of reducing poverty as a result of hunger and increasing household nutrition is materialised. Despite the very short time frame and lack of resources with which the survey was completed, the

organisation believes that it has been able to generate enough data to determine the needs of Mkushi's rural farmers. The organisation has been optimistic due to the overwhelming response and encouragement from the local community and authorities to start its projects as soon as possible. The initiative has immense potential for improving the livelihoods of participating farmers and their households which can be replicated as a model throughout rural areas of Zambia.