

Food Security Research Findings
and Recommendations

Migori County

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Zero Tolerance to Hunger
Kenya Constitution Article 43 (1)(c)

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List of Abbreviations and Acronyms

AEZs	Agro-Ecological Zones
AGRA	Alliance for a Green Revolution in Africa
AIDS	Acquired Immuno-Deficiency Syndrome
ASDS	Agriculture Sector Development Strategy
AWSC	African Women's Studies Centre
CAADP	Comprehensive Africa Agriculture Development Program
CCF	Christian Children's Fund
CDOs	County Development Officers
CSO	County Statistical Officer
ERS	Economic Recovery Strategy
FAO	Food and Agriculture Organization
FGDs	Focus Group Discussions
FISP	Farm Inputs Subsidy Program
GDP	Gross Domestic Product
GOK	Government of Kenya
IDPs	Internally Displaced Persons
IFPRI	International Food Policy Research Institute
IFSS	Integrated Food Security Strategy
JICA	Japan International Cooperation Agency
KDHS	Kenya Demographic and Health Survey
KNBS	Kenya National Bureau of Statistics
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MOA	Ministry of Agriculture
M&E	Monitoring and Evaluation
MTEF	Medium Term Expenditure Framework
NACADA	National Authority for Campaign against Drug Abuse
NASSEP	National Sample Survey and Evaluation Program
NFSP	National Food and Nutrition Security Policy
NGOs	Non-Governmental Organizations
NREGA	National Rural Employment Guarantee Act
NREGS	National Rural Employment Guarantee Scheme
OVCs	Orphans and Vulnerable Children
PRSP	Poverty Reduction Strategy Paper
PWD	Persons with Disabilities
UoN	University of Nairobi

Definition of Key Concepts

Adequate food: Availability of food in sufficient quantity and quality to satisfy the dietary needs of individuals including being free from adverse substances.

Chronic hunger: A constant or recurrent lack of food that results in underweight and stunted children as well as high infant mortality.

Diversity and gender: An important component of food security due to the different roles played by women and men with regard to food security as the majority of women provide about 70 per cent of the labor force, either directly or indirectly, in the agricultural sector in Kenya.

Food: Everything that originates from biological sources and water, whether processed or not, and which is designated as an eatable or beverage for human consumption. It includes food additive materials, food raw material, and other materials used in the process of preparation, processing and or making an eatable or beverage.

Food access is ensured when households and all individuals within them have physical, economic, and social access to food and utilize adequate and appropriate foods for a nutritious diet.

Food availability is achieved when sufficient quantities of food are consistently available to all individuals within a country. Such food can be supplied through household production, other domestic output, commercial imports, or any other form of assistance such as monetary and food

donations/intergenerational transfers among other sources.

Food of acceptable quality: Food whose value of quality is determined as fit for consumption based on the criteria of food safety, nutrition content, and standards specified by the Cabinet Secretary or under the Standard Act or any other written law.

Food preservation: Prevention of food from decay, decomposition, or spoilage.

Food production: An activity or process of producing, preparing, processing, making, preserving, packing or repackaging and or changing the form of food.

Food safety: Condition and efforts required to prevent food from possible biological or chemical contamination and contamination by other objects which may harm or endanger human health.

Food reserve: National food reserve established under section 43 of the Constitution of Kenya.

Food security is a “situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO, 2001; 2010).

Food storage: Place where food or food items are stored.

Freedom from hunger: A situation where all persons have access to a level of food that is capable of meeting the recommended minimum dietary

requirements as may be prescribed by the Cabinet Secretary from time to time.

Food insecurity: A situation that exists when all people do not have physical, social and/or economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life as defined above (FAO, 2010). The absence of food security is a multifaceted problem exhibited by famines and food emergencies. More importantly, food insecurity has a temporal dimension such that it can be chronic or transitory.

Food utilization is the appropriate biological use of food, requiring a diet providing sufficient energy and essential nutrients, including concerning issues relating to availability of clean water and adequate sanitation. Effective food utilization largely depends on knowledge within the household of food storage and processing techniques and basic principles of nutrition.

Global Hunger Index (GHI) is a multidimensional statistic describing national hunger. The GHI measures progress and failures of global anti-hunger efforts and is updated once a year.

Hidden hunger is a lack of essential micronutrients in diets and affects more than 2 billion people worldwide.

Household: A person or a group of persons residing in the same compound and who are answerable to the same head and share a common source of food. The three important ways of identifying a household are by ensuring that:

- a) People reside in the same compound;
- b) People are answerable to the same head; and

- c) Members share a common cooking arrangement (pool and share their resources for common provisions).

Household head: The most responsible member of the household who makes key decisions of the household on a day-to-day basis and whose authority is recognized by all members of the household. A household head could be the father, the mother, a child, or any other responsible member of the household depending on the status of the household.

Hunger is generally understood to refer to the discomfort associated with lack of food. The FAO (2010) defines it specifically as consumption of fewer than about 1,800 kilocalories a day – the minimum that most people require to live a healthy and productive life. Many definitions of hunger focus on calories.

Malnutrition: Poor nutritional status caused by nutritional deficiency or excess.

Malnutrition refers more broadly to both undernutrition (i.e., problems of deficiencies) and over-nutrition (i.e., problems of unbalanced diets) such as consumption of too many calories in relation to requirements with or without low intake of micronutrient-rich foods. Both conditions contribute to poor health.

Minimum amount of food: Amount of food required to meet the minimum nutritional needs of an individual according to age, sex, occupation and health status provided in kind, in equivalent monetary value, and in the form of vouchers or other prescribed manner.

National Sample Survey and Evaluation Program (NASSEP) frame generally consists of a list of households generated from a number of scientifically selected

villages and estates which ultimately represent other villages in the entire country in surveys that are conducted on the frame.

Right to food: The right of every person to have regular, permanent and free access, at all times, either directly or by means of financial purchases, to quantitatively and qualitatively adequate, sufficient and safe food, corresponding to his or her cultural traditions and which ensures a physical and mental, individual or collective fulfilling and dignified life free of fear of hunger or undernutrition.

Respondent: Any responsible member of the household who provides information to the enumerator.

Stability of food availability, access, and utilization (Sustainability) is ensured when a country addresses consistency of supply, access and utilization of foods among all citizens at all times.

Standard meal is a term used in this report to refer to three meals per day with the conventionally recommended calories of fat, carbohydrates, protein, and other nutrients, vitamins, and minerals.

Transitory food insecurity occurs when a population suffers a temporary decline in consumption due to instability in food production, food prices, household incomes, and health conditions.

Under-nutrition signifies deficiencies in energy, protein, essential vitamins and minerals, or any or all of these. Under-nutrition is the result of inadequate intake of food in terms of either quantity or quality or poor utilization of nutrients due to infections or other illnesses, or a combination of these two factors.

Vulnerable persons include infants, children, school going children, pregnant and nursing mothers, the elderly, refugees, internally displaced persons, people with disabilities, sick persons with chronic diseases such as HIV/AIDS, victims of conflict, rural people in precarious livelihood situations, marginalized populations in urban areas, groups at risk of social marginalization and discrimination and any other group that may be identified from time to time.

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This Migori County research project is part of a larger project carried out by the African Women's Studies Centre, University of Nairobi and which included 20 other counties namely: Turkana, Kisii, Laikipia, Isiolo, Kwale, Mombasa, Nairobi, Elgeyo Marakwet, Trans-Nzoia, Nandi, Makueni, Bungoma, Taita-Taveta, Baringo, Nakuru, Bomet, Kirinyaga, Migori. This research focuses on the implementation of article 43 (1)(c) of the constitution of Kenya 2010 which states that ***every Kenyan has a right to be free from hunger, and to have adequate food of acceptable quality.***

The successful implementation of the project has been made possible by the support, encouragement and goodwill of the University of Nairobi administration led by the Vice-Chancellor Prof George Magoha and the Kenya National Bureau of Statistics led by the Director General, Mr. Zachary Mwangi. The technical team composed of experts from the University of Nairobi and KNBS carried out the research in the 20 counties. AWSC is grateful to all of them.

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To all of you, we say THANK YOU.
“**ASANTENI SANA**”.



Prof. Wanjiku Mukabi Kabira, EBS
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Executive Summary

The African Women's Studies Centre (AWSC), in collaboration with the Kenya National Bureau of Statistics (KNBS), undertook a countrywide household baseline survey on food security to establish the status of food security in Kenya. In addition to being a reflection of AWSC's recognition of the efforts made by the Government of Kenya towards implementation of food security for all, the study was, in accordance with the mandate of AWSC, to promote women's experiences, knowledge, needs and contributions towards influencing national and county policies.

The survey was part of a broader project funded by the National Treasury, which included documenting women's experiences on food security in 20 counties, developing programmatic and policy proposals, and initiating lobbying and advocacy activities directed towards influencing policy makers to adopt these proposals and to make budgetary allocations to fund them. It was also in line with the efforts being put in place to implement the Constitution of Kenya 2010 with particular focus on Article 43 (1)(c) which states that "every person has a right to be free from hunger and to have adequate food of acceptable quality" (Republic of Kenya, 2010).

The broad project objectives¹ were to establish the status of food security in Kenya and, through a consultative process, come up with proposals for ensuring food security in the country and share these proposals with policy makers.

This report outlines the research methodology, key findings, challenges, and recommendations thereof. The research was carried out in 20 counties selected from the country's six agro-ecological zones. The study covered 4,200 households in 440 clusters. In addition, the research teams held consultations with policy makers, including County Executive Officers, among them the Governors and the Members of the County Assemblies; representatives of civil society organizations (CSOs); representatives of institutions responsible for food security; and community opinion leaders, including religious leaders, women, and youth leaders. The research team was led by agricultural scientists and economists. Senior level management of the University of Nairobi and the Kenya National Bureau of Statistics participated in this research.

This report presents the results of the Household Survey on the Status of Food Security in Migori County and is part of the broader national report. The report makes recommendations on the way forward for Migori County. A key research finding at the national level was that, on average, 18 per cent of the population, which translates to 7.1 million Kenyans, are chronically food insecure suggesting that they are often or always hungry. The findings further indicate that the worst hit county, in terms of hunger, was Turkana County (54%) followed by Kisii County (41%), Migori County (34%), and Isiolo County (29%). Kirinyaga county was the least affected (3%) followed by Bomet (5%), Nakuru (6%), and Kiambu (7%).

Some of the factors found to contribute to food insecurity included high cost of farm

¹ Only objectives related to the household survey carried out by AWSC & KNBS are reflected in this report.

inputs; land fragmentation due to the cultural practice of land inheritance which makes agricultural land uneconomical among farming communities; large families particularly in the Arid and Semi-Arid Land areas; lack of storage and preservation facilities leading to post harvest losses; erratic climatic changes and lack of water for irrigation; insecurity; and poor infrastructure in the rural areas.

The findings show that Migori County is chronically food insecure, with an average of 34 per cent of the respondents experiencing chronic food insecurity. The majority of the participants relied on own production at 35.4 per cent, Trade/small businesses 24.5 per cent and casual labor (agriculture and non-agriculture) at 23.3 per cent, as the main source of accessing food. The major challenges to food security in Migori County include:

- i) poor infrastructure which hampered marketing activities resulting in high food prices in the county;
- ii) Erratic climatic conditions in the form of flash floods during long rains and extreme drought in dry seasons;
- iii) small parcels of land for food production attributable to competition from tobacco and sugarcane growing whose incomes from cash crops hardly benefit women and children;
- iv) lack of access to effective agricultural extension services and support by small

scale farmers which results in lack of quality farm inputs and ignorance of new agricultural technologies/methods of farming; and

- v) lack of involvement in agricultural activities by youth and men leaving food production solely to older women.

Other challenges include:

- i) alcoholism, poverty, lack of employment; insecurity in most parts of the county where thieves steal crops and animals from farms and merchandise from traders, and
- ii) large family sizes where most HHS have six members and above and social, cultural and traditional values which obstruct development at many levels.

To address the plight of the 18 per cent nationally and the 34 per cent Migori County residents experiencing chronic food insecurity, AWSC has come up with policy and programme proposals based on the participants' recommendations and best practices in other countries. Adoption and implementation of the proposed interventions will ensure that every Migori County resident as well as every Kenyan is food secure. This will go a long way towards the realization of MDG 1, the Kenya development blue print, Vision 2030 and above all, the Constitution of Kenya, article 43 (1)(c) that guarantees every person the "right to be free from hunger, and to have adequate food of acceptable quality".

Background and Context for the Migori County Report

1.1 Introduction

The African Women's Studies Centre (AWSC), which is based at the University of Nairobi, recognizes that the experiences of African women in almost all spheres of life have been invisible. This multi-disciplinary center aims at bringing women's experiences, knowledge, needs, and contributions to mainstream knowledge and processes. The AWSC draws its membership from various colleges of the University of Nairobi, namely: Humanities and Social Sciences, Agriculture and Veterinary Sciences, Health Sciences, Biological and Physical sciences, Architecture and Engineering, and Education and External Studies.

It has been acknowledged that women play a central role in ensuring food and nutrition security in Kenya and other sub-Saharan countries because it is central to the achievement of human dignity. In the last few years, the AWSC has consolidated studies, research findings, and policy issues from Kenya and the region in relation to food security. The present budget submission by the AWSC was part of a process directed towards the achievement of meaningful engagement and contribution to the current national discourse on the implementation of Article 43 (1)(c) of the Constitution of Kenya (2010), which states that **"every person has a right to be free from hunger and to have adequate food of acceptable quality"**. The right to food for all is of crucial importance to the AWSC because the Centre appreciates the magnitude of the task and has a strategic interest in the achievement of equity among

the genders, the very poor, and other vulnerable groups in society. The full implementation of the constitutional provision means that the government must put in place strategies and structures to realize and institutionalize the availability of food to all in a sustainable manner. Food security is an issue of dignity and hence no Kenyan should go to bed hungry for any reason.

The AWSC recognizes the efforts made by the Government of Kenya towards implementation of food security. However, given the poverty situation in the country and the food security vulnerability, more needs to be done towards enhancement of an all-inclusive countrywide food security policy and programming. The AWSC has, therefore, chosen to focus on working with Parliament, county assemblies, the national and county governments, and other policy makers in order to ensure the implementation of Article 43(1)(c) that guarantees Kenyans the right to food.

The Centre also plans to complement and support the implementation of the Food Security and Nutrition Policy and other initiatives such as the National Social Protection Policy and the Agriculture, Fisheries and Food Authority Act, among other policy documents, aimed at ensuring food and nutrition security. The Project also takes cognizance of Schedule Four of the Constitution that devolves some of the activities related to food security to the county governments.

The AWSC conducted the research reported here in collaboration with the KNBS during the calendar year 2013. The research covered the six agro-ecological zones in Kenya and 20 counties, namely: Kisii, Nairobi, Kiambu, Nakuru, Elgeyo-Marakwet, Kirinyaga, Kajiado, Bomet, Makueni, Bungoma, Taita Taveta, Migori, Trans Nzoia, Turkana, Baringo, Isiolo, Kwale, Mombasa, Nandi, Laikipia.

1.2 Objectives of the Research

The objectives of the research were to:

- Establish the status of food security in the country;
- Review best practices in institutional, legal, and policy frameworks for implementation of Article 43 (1)(c) and make policy recommendations at the national and county levels;
- Involve citizens' participation in the development of food security initiatives;
- Use evidence-based advocacy for greater allocation of resources for food security initiatives;
- Establish whether the economic, social and political pillars of Vision 2030 take into consideration food security concerns.

In addition, using the research findings, the team was required to evaluate the Vision 2030 pillars to establish their capacity to ensure food security; share the research findings with food security stakeholders (policy makers, civil society organizations and the general public) at the county and national levels; generate proposals for ensuring full implementation of Article 43 (1)(c) of the Kenya Constitution 2010; and document women's experiences, knowledge,

and perceptions in relation to food security and share the findings.

1.3 Efforts by the Kenya Government to Address Food Security

In 2011, the Kenya government developed the National Food and Nutrition Security Policy (FNSP) with the aim of adding value, building synergies, and supporting the implementation of existing national and sectorial policies and strategies to effectively address issues of food insecurity and malnutrition in the country. The current efforts so far have been inadequate in addressing issues of malnutrition comprehensively, thus the need to have an overarching policy that integrates food and nutrition security initiatives.

The Kenya Vision 2030 is a significant government policy document that aims to boost food security in the country through various flagship projects such as improvement of infrastructure, creation of more employment opportunities, and development of irrigation schemes among others. The vision for the agricultural sector is to be "innovative, commercially-oriented and modern farm and livestock sector" (Republic of Kenya, 2007). If the Kenya Vision 2030 is properly implemented, it will mitigate food insecurity in the country considerably.

The Kenya Agriculture, Fisheries and Food Authority (AFFA) Act provides for the establishment of the Agriculture, Fisheries and Food Authority to administer matters of agriculture, preservation, utilization and development of agricultural land and related matters (Parliament of Kenya, 2013). Among other functions, the Authority shall, in consultation with the county governments, among other things: **(a)** administer the Crops Act and the Fisheries Act; **(b)** promote best practices in, and regulate, the production,

processing, marketing, grading, storage, collection, transportation and warehousing of agricultural and aquatic products excluding livestock products; **(c)** collect data and maintain a database on agricultural and aquatic products excluding livestock products; **(d)** determine the research priorities in agriculture and aquaculture; **(e)** advise the national government and the county governments on agricultural and aquatic levies; **(f)** carry out such other functions as may be assigned to it by this Act, the Crops Act, the Fisheries Act and any other written law.

The Constitution of Kenya represents the boldest move by the Government of Kenya towards achievement of food security and places the responsibility of ensuring food security to the Government through its provision of the right to food (Republic of Kenya, 2010). The right to food, as mentioned earlier, means that the Government shall not take actions that result in increasing levels of hunger, food insecurity, and malnutrition. Furthermore, the Government must use its available resources to eradicate hunger.

In the 2013/14 financial year, the number of beneficiaries of the cash transfer program for the orphans and vulnerable children (OVC) was doubled from 155,000 households to 310,000 households. Those receiving the Old People's Cash Transfer (OPCT) was also doubled from 59,000 to 118,000 households. The coverage of those with extreme disability was also increased from 14,700 to 29,400 households. The number of other disabled persons under coverage of cash transfer was also doubled. Further, about ksh 400 million was set aside for the Presidential Secondary School Bursary Scheme for orphans and poor and bright students while Ksh 356 million was allocated for urban food subsidy. In addition, the government has shown

commendable efforts towards the provision of irrigation infrastructure including the largest irrigation scheme in the history of Kenya, the one-million-acre Galana-Kulalu in the Coast region.

1.4 Summary of the National Food Security Status

This section presents the results of the household baseline survey on food security in Kenya. Food security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Household food security means applying this concept to individuals within the household. Conversely, food insecurity exists when people do not have adequate physical, social or economic access to food (FAO, 2010).

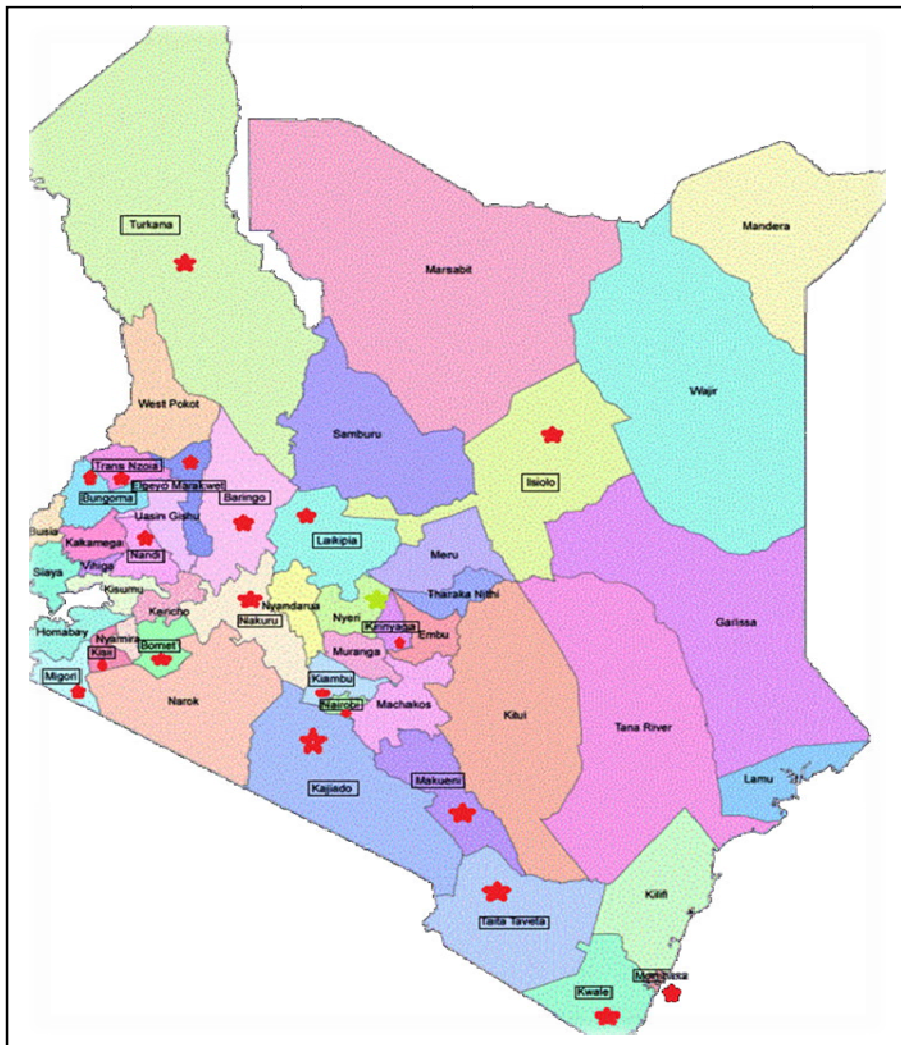
The findings of the AWSC/KNBS National Food Security Baseline Survey indicate that food insecurity in the country at the moment is at worrying, alarming, and unacceptable levels, with a large proportion of the sampled counties experiencing high levels of food insufficiency. Food and nutrition insecurity is one of the challenges currently affecting development in Kenya and is closely linked to the high level of poverty in the country; a situation that has serious implications on food security as the chronically food insecure suffer from extreme poverty (Republic of Kenya, 2008). In recent years, it is estimated that at any one time about 2 million people require assistance to access food. Moreover, the level of food insecurity usually escalates significantly during periods of drought, heavy rains, and/or floods. Ensuring food security and nutrition in Kenya is, therefore, a critical challenge.

The Household Baseline Survey on Food Security was carried out in 20 counties that

were scientifically sampled to represent the 47 counties in Kenya. Forty-five counties in Kenya (excluding Nairobi and Mombasa) were first classified into six Agro-ecological Zones (AEZs) of Kenya. The AEZs are Upper Highlands, Upper Midlands, Lowland Highlands, Lowland Midlands, Inland Lowlands, and Coastal Lowlands. An Agro-

Ecological Zone is a land resource mapping unit, defined in terms of climate, landform and soils, and/or land cover and having a specific range of potentials and constraints for land use (FAO, 1996). Figure 1 is a map of Kenya showing the 20 counties visited during the baseline survey.

Figure 1: Map of Kenya Showing the 20 Visited Counties



The red asterisks indicate the 20 counties visited.

1.5 Methodology

The methodologies used by the researchers included a household survey where 4,200 households, in 20 counties, were interviewed on their food security status using a hunger module to assess household experiences in the last 10 months before the study. The survey addressed the issues of availability, access, utilization, and sustainability of food. In addition to the household survey, the views of opinion leaders were sought using key informant questionnaires, focus group discussions, and debriefing sessions. Further, institutional questionnaires were administered to the County Development Officers to obtain the opinions of government officials on food security in each

of the visited counties. The counties sampled for the survey were Kisii, Nairobi, Kiambu, Nakuru, Elgeyo-Marakwet, Kirinyaga, Kajiado, Bomet, Makueni, Bungoma, Taita Taveta, Migori, Tran Nzoia, Turkana, Baringo, Isiolo, Kwale, Mombasa, Nandi and Laikipia. Initial research findings were shared with county governments, members of the county assemblies and members of the Civil Society Organizations for further input.

Research findings from the 20 counties and desk review on institutional, policy and legal frameworks were shared at a national workshop with the chairpersons of the agriculture committees of the county assemblies. Table 1 below gives details of the Agro-Ecological Zones in which the sampled counties fall.

Table 1: Agro-ecological Zones in Kenya and Sampled Counties for the Baseline Survey

Agro-Ecological Zones	Counties	
Upper Highlands	Murang'a	Meru
	Nyandarua	Nyeri
	Nakuru	Elgeyo Marakwet
Upper Midlands	Machakos	Nyamira
	Narok	Vihiga
	Kisii	Kirinyaga
	Kiambu	Trans Nzoia
Lowland Highlands	Uasin Gishu	Nandi
	Kericho	Laikipia
Lowland Midlands	West Pokot	Kakamega
	Tharaka Nithi	Kisumu
	Homa Bay	Embu
	Siaya	Kitui
	Busia	
	Kajiado	Bungoma
	Bomet	Taita Taveta
	Makueni	Migori
Inland Lowlands	Mandera	Tana River
	Wajir	Marsabit
	Garissa	Samburu
	Turkana	Isiolo
	Baringo	
Coastal Lowlands	Lamu	Kilifi
Urban	Kwale	
	Nairobi	Mombasa

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

1.6 Conceptual Framework

Conceptually, food security is based on three pillars: availability, accessibility and utilization. The three pillars rest on a fourth dimension of stability as illustrated in Figure 2.

1.7 Rationale for Adopted Questions

The AWSC decided to focus on hunger as a major manifestation of food insecurity in the country. Hunger is usually understood to refer to the discomfort associated with lack of food. More specifically, the FAO (2010) defines hunger as consumption of fewer than about 1,800 kilocalories a day - the minimum that most people require to live a healthy and productive life. Achieving adequate food security is a necessary first step towards improved human well-being, the alleviation of poverty, and sustainable broad-based economic growth. The study adopted eight questions to measure the four dimensions of food security as illustrated in Table 2.

1.8 Key Research Findings

The research revealed that, on average, 30 per cent of Kenyans are often and always worried about not having food at the household level. The most worried communities were from Turkana (70%), Kisii (59%), Migori (53%), Kwale (47%), Trans Nzoia (42%) and Isiolo (35%) counties. The observation that over 30 per cent of Kenyans worry about hunger has a serious impact on their individual development and the health of their families and communities and ultimately on national development as a whole. The researchers, therefore, proposed that measures should be put in place to ensure that at least 7.1 million Kenyans are removed from this dehumanizing situation of constantly facing the threat of hunger. Kenya must declare zero tolerance to both hunger and worrying about hunger. Table 3 below ranks the 20 sampled counties from the least to the most food insecure based on the average manifestation of food insecurity as derived from responses to the eight questions.

Figure 2: Conceptual Framework of Food Security



Table 2: The Eight Study Questions Grouped According to Food Availability, Accessibility, Utilization, and Sustainability

Food Security Dimensions	Key Questions
Availability	E3: Did you or any household member eat a limited variety of foods due to lack of choices in the market? E6: Did you or any other household member eat fewer meals in a day because there was not enough food? E8: Did you or any household member go to sleep hungry at night because there was not enough food?
Sustainability	E1: Did you worry that your household would not have enough food?
Accessibility	E4: Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food? E5: Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough? E7: Was there a time when there was no food at all in your household because there were not enough resources to go around?
Utilisation	E2: Were you or any household member not able to eat the kinds of foods you preferred because of lack of resources?

Source: FAO, 1996.

Table 3: Manifestation of Hunger in the Last Ten Months

County	E01: Did you worry that your household would not have enough food?	E02: Were you or any household member not able to eat the kinds of foods you preferred because of lack of resources?	E03: Did you or any household member eat a limited variety of foods due to lack of choices in the market?	E04: Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?	E05: Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough?	E06: Did you or any other household member eat fewer meals in a day because there was not enough Food?	E07: Was there a time when there was no food at all in your household because there were not enough resources to go around?	E08: Did you or any household member go to sleep hungry at night because there was not enough food?	Average manifestation of food insecurity for the country
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Kirinyaga	8.3	7.8	6.8	9.4	6.3	4.7	3.1	2.1	6.1
Nakuru	14.0	18.1	7.7	14.0	14.9	14.0	7.2	4.5	11.8
Kiambu	15.9	18.6	6.0	18.6	13.0	11.2	8.4	6.0	12.2
Kajiado	17.6	18.6	22.0	15.5	15.4	12.6	11.0	5.3	14.8
Elgeyo Marakwet	16.7	14.8	11.9	14.3	19.0	18.3	13.8	11.0	15.0
Bomet	22.8	25.5	20.8	18.3	14.7	14.2	6.1	3.6	15.8
Baringo	20.8	18.4	21.2	22.6	19.4	20.4	18.9	15.6	19.7
Taita Taveta	23.3	25.2	18.9	22.6	21.7	20.2	15.7	15.1	20.3
Mombasa	26.0	26.5	20.5	27.4	26.0	25.1	24.3	16.1	24.0
Laikipia	23.1	27.6	23.7	39.2	31.9	25.9	17.2	7.5	24.5
Bungoma	31.0	33.8	18.8	28.3	29.7	25.6	20.2	12.7	25.0
Nairobi	25.7	30.4	18.7	33.6	29.0	26.2	19.6	20.1	25.4
Isiolo	35.8	41.7	27.8	33.0	38.7	36.3	32.5	25.5	33.9
Nandi	30.2	38.1	16.7	36.3	33.0	28.4	23.7	12.6	27.4
Makueni	28.2	37.3	21.4	33.6	33.6	31.5	21.0	17.9	28.1
Kwale	47.1	48.6	25.7	39.0	41.9	43.3	24.8	16.7	35.9
Trans Nzoia	41.7	54.5	35.3	47.6	41.7	35.3	22.0	17.2	36.9
Migori	53.5	55.9	31.2	51.8	47.1	45.8	35.9	31.8	44.1
Kisii	59.1	68.0	62.6	70.7	62.1	62.9	47.0	35.5	58.5
Turkana	70.3	70.9	70.9	73.4	71.5	74.1	59.5	48.1	67.3

Source: AWSC/KNBS Baseline Household Survey on Food Security, June 2013.

1.8.1 Manifestation of Hunger with Averages of E07 and E08

Table 4 combines the answers of respondents who said they were often hungry and those who said they were always hungry. According to the researchers in this study, the responses to these two questions aggregated because they indicate the highest manifestation of food insecurity. The key

research finding is that, on average, 18 per cent of Kenyans reported that they were often or always hungry. The research findings further indicate that the worst hit county in terms of hunger was Turkana County (54%) while Kirinyaga was the least affected (3%). Baringo County ranked eleventh with 17 per cent of the population being affected.

Table 4: Manifestation of Hunger with Averages of E07 and E08

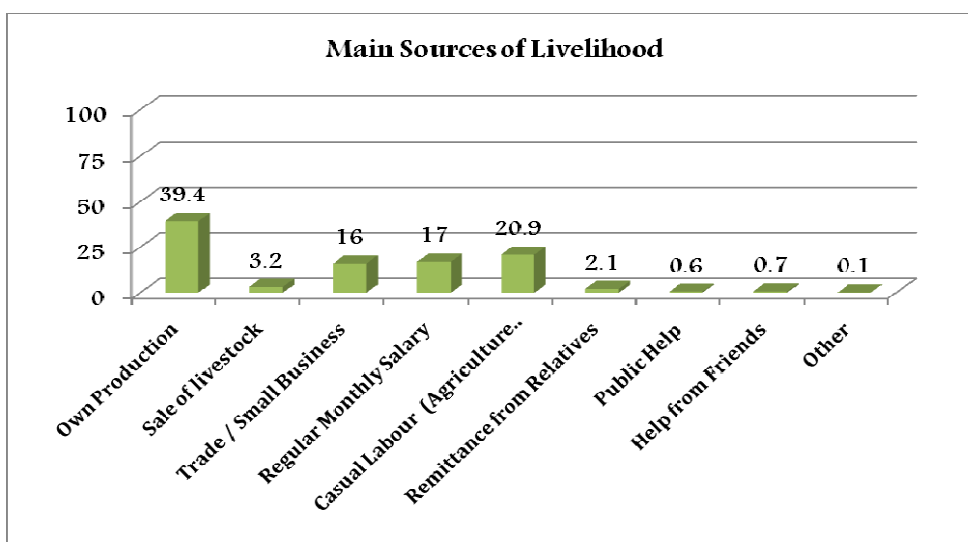
County Name		E07. Was there a time when there was no food at all in your household because there were not enough resources to go around?	E08. Did you or any household member go to sleep at night hungry because there was not enough food?	Average
1	Turkana	59.5	48.1	54
2	Kisii	47.0	35.5	41
3	Migori	35.9	31.8	34
4	Isiolo	32.5	25.5	29
5	Kwale	24.8	16.7	21
6	Mombasa	24.3	16.1	20
7	Nairobi	19.6	20.1	20
8	Trans Nzoia	22.0	17.2	20
9	Makueni	21.0	17.9	19
10	Nandi	23.7	12.6	18
11	Baringo	18.9	15.6	17
12	Bungoma	20.2	12.7	16
13	Taita Taveta	15.7	15.1	15
14	E. Marakwet	13.8	11.0	12
15	Laikipia	17.2	7.5	12
16	Kajiado	11.0	5.3	8
17	Kiambu	8.4	6.0	7
18	Nakuru	7.2	4.5	6
19	Bomet	6.1	3.6	5
20	Kirinyaga	3.1	2.1	3
Total		21.0	15.7	18

Source: AWSC/KNBS Baseline Household Survey on Food Security, June 2013.

1.8.2 Main Sources of Livelihood

Figure 3 shows the main sources of livelihood in the 20 counties visited.

Figure 3: Main Sources of Livelihood



Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

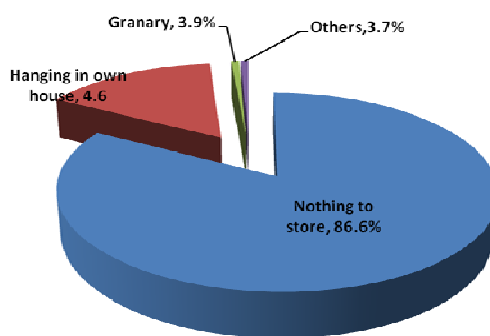
The findings also show that the sources of livelihood for the respondents in the 20 counties were mainly own production (39.4%); casual labor in agriculture and non-agriculture related activities (20.9%); regular monthly salary (17%); trade/small businesses (16%), sale of livestock (3.2%), remittance from relatives (2.1%); help from friends (0.7%) and public help (0.6%). It should, therefore, follow that interventions should center around improving the output of own production, offer more employment opportunities, and improve infrastructure to enable expanded trade/small businesses. Given these findings, we have made proposals in section 1.9 on how to improve food security in these three categories.

1.8.3 Preservation and Storage Methods

Figure 4 below shows the methods of storing perishable foods such as vegetables, fruits,

meat and milk while Figure 5 illustrates the methods of storing non-perishable foods such as cereals, pulses, roots, and tubers.

Figure 4: Methods of Food Storage (perishable)

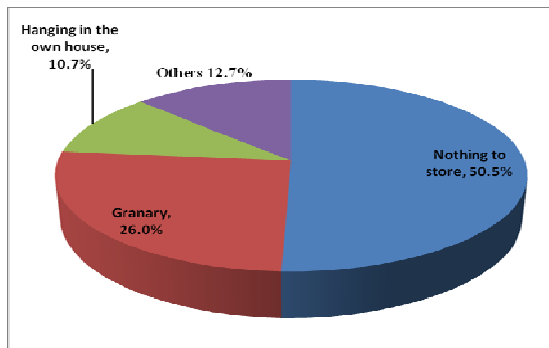


Source: AWSC/KNBS Baseline Survey on Food Security Baseline, June 2013.

Figures 4 and 5 reveal that the majority of the respondents indicated that they had

nothing to store with 86.6 per cent saying they had nothing perishable to store while 5.5 per cent said they had no non-perishable foods (i.e., cereals and pulses including beans, cow peas, maize, rice and rice) to store.

Figure 5: Methods of Food Storage (non-perishable)



Source: AWSC/KNBS Baseline Survey on Food Security Baseline, June 2013.

1.9 Key Policy and Program Recommendations for the National Food Security

The research findings indicate that at least 7.1 million Kenyans (18%) Kenyans are often or always hungry. These figures have great implications, especially for the development of the potential of children. Therefore, the implementation of Article 43 (1)(c) must be regarded as a priority for Kenyans. Among the key recommendations emanating from the research carried out in the 20 counties, the AWSC has prioritized seven critical areas that need urgent attention. However, AWSC recognizes that some of these recommendations need long-term planning.

1.9.1 Water for Irrigation and Domestic Use

Over 80 per cent of the land area in Kenya is classified as Arid and Semi-Arid Land (ASAL) because it is affected by moderate to severe land degradation and desertification. About

10 million people (30 per cent of Kenya's population) live in the ASALs with over half of this population living below the poverty line. From our study, most of the respondents from the ASAL areas which included Kwale, Isiolo, Elgeyo Marakwet, Laikipia, Taita Taveta, Makueni, Kajiado, Turkana, and Baringo proposed the introduction or scaling up of irrigation. While appreciating the great effort by the Government, the AWSC proposes the following measure in order to meet the great demand for water by the counties in the ASAL region:

Rain water harvesting: Purchasing of materials and equipment for water harvesting such as tanks, pipes, water pumps, borehole drilling machinery, and gutters to ensure rain water harvesting in schools, health centers, urban centers.

1.9.2 Family Support Program

Given the level of food insecurity in all the counties visited, and the fact that at least 18% of Kenyans or 7.1 million people are often or always hungry, the national government (through the county governments) should establish a family support program for those severely affected by hunger. Following the example of India and Brazil, the Kenya government should focus directly on the affected households to ensure that they have access to food through either increased production (40 per cent produced their own food), creation of employment for casual laborers (21%) and opportunities for markets and trade (16 per cent who engage in trade and small business).

As in the case of India, in order to ensure efficient and transparent targeting of the food poor households, we recommend the establishment of a clear legal framework to ensure the implementation of a family support program that will address this

category of Kenyans and redeem them from the dehumanizing situation while also responding to Article 43 (1)(c) of the Kenyan Constitution. This action will demonstrate that Kenya is truly committed to zero tolerance to hunger and will set the pace for the entire region. We, therefore, propose that within the 2014/2015 budget the government should commit itself to reducing by 10 per cent the population of those who are often and always hungry by undertaking the following measures:

- i) **Targeting own producers** The national and county governments should target each of the households that produce their own food to ensure increased food production. The family support program could ensure that the 40 per cent of households in this category have access to farm inputs, information, and markets for their produce.
- ii) **Stabilizing farmer's income:** County governments should prioritize the buying of food directly from the farmers to ensure minimum guaranteed returns for them.
- iii) **Value addition and markets:** From the research 50.5 per cent of the respondents said they had no non-perishable food while 12.2 per cent stored perishable food. Poor storage and lack of markets were common problems faced by almost all the respondents. We, therefore, propose the allocation of resources to set up processing plants in all the counties as per the needs assessment of each county. Baringo County, for instance, where a lot of tomatoes go to waste during periods of bumper harvest may require a tomato processing plant. Similarly, Nakuru and Makueni counties may require vegetable

canning and mango processing plants respectively.

1.9.3 County Strategic Food and Water Storage

Wastages and losses incurred as a result of diseases and pests attacking the produce, poor weather, destruction of produce by wild animals, and lack of adequate storage facilities during surplus production contribute to the massive food insecurity reported during the survey. We estimate that on average the counties will require 850,000 bags of grain search, that is, about 40 million bags for the entire country. We recognize that Schedule IV of the Constitution gives the responsibilities of health, agriculture and social services among others to the county government. We therefore propose support for the establishment of county strategic food and water reserves in each county.

1.9.4 One Job for Every Poor Household

The government should develop a policy that allows the county and national governments to identify the hungry households and create employment for at least one person in the household for at least 200 days in a year. This arrangement will cater for 21 per cent of the respondents from our study who indicated that they are engaged in casual labor as a source of livelihood. The ultimate objective of this project is to create employment for at least 200 days per year for one person in a poor family for households that have no one with wage employment. In counties such as Isiolo and Turkana where food insecurity is high, the government should identify and provide employment for two persons per household. The beneficiaries of this program will be engaged in green jobs which include water conservation and water harvesting; drought-proofing (including forestation and tree planting to increase forest cover to 10 per cent of the land mass of

Kenya); construction of irrigation canals, including macro and minor irrigation works; and construction and maintenance of roads, government buildings, and other structures.

1.9.5 Cash Transfer

The government has shown commendable efforts towards the allocation of funds to the elderly, orphans and vulnerable children as well as the persons living with disabilities. However, many respondents (86%) registered their dissatisfaction with the management, allocation and distribution of the funds. We, therefore, recommend that the food security county committees proposed herein should be given the responsibility of overseeing the proper targeting of beneficiaries including monitoring and evaluation of the implementation process. In addition, exit strategies should be provided for the beneficiaries.

1.9.6 Drug and Alcohol Abuse

The abuse of drugs and alcohol was a major contributor to food insecurity in the counties visited such as Kiambu, Mombasa, and Kirinyaga. We propose increased support to NACADA to deal with this problem. We also propose the establishment of a fund to cater for the rehabilitation of the affected people, especially the youth.

1.9.7 Increased Security

The 2014/2015 national budget allocation for security is high given the current security situation in the country. Research also showed that insecurity was a major contributor to food insecurity across the counties. According to the respondents, insecurity was caused by among other facts, village gangs who terrorize the owners of small businesses. These gangs also target the farmers by milking their cows and stealing their crops and livestock. Increased human-wildlife conflict was another problem raised

by the respondents. We, therefore, propose that 15 per cent of the total budget for security should be allocated to initiatives aimed at combating insecurity and maintaining peace at the community level. This action could contribute to ensuring food security in counties such as Isiolo, Turkana, and Mombasa where many of the respondents indicated that insecurity was a threat to food security.

1.9.8 Implementation Mechanism for County Food Security Programs

Given the research findings discussed in detail in this report, we propose the establishment of County Food Security Committees comprising of the county executive officer in charge of agriculture; two social services persons of opposite gender with knowledge and experience in matters related to food security appointed by the Governor; and two persons of opposite gender to represent special interests also appointed by the Governor. These committees will monitor the food security and nutrition situation, evaluate the progress of implementation of the food security programs in the county and provide guidelines for the selection and appropriate targeting of food insecure families and individuals in the county among other functions.

1.9.9 Economic Empowerment of Youth and Women

The Government's efforts to provide employment, especially for the youth and women, are indeed commendable. The various initiatives such as the Women Enterprise Fund, Youth Enterprise Fund and Uwezo Fund will contribute and make it possible for many youth and women to engage in gainful employment but still a lot more needs to be done. The majority of the youth remain unemployed and some even

resort to social ills as a means of livelihood. Our research findings showed that 30.3 per cent of the respondents from our study were youth between the ages of 15-34 years and increased opportunities will make it possible for them to engage in meaningful employment. The Funds should be enhanced and more young people trained on how to utilize the funds to avoid mismanagement and defaulting on repayment of money from the fund.

1.9.10 Enforcement Mechanism for Ensuring Food Security

The AWSC proposes that a legislative framework should be developed that will

enforce food security programs including the family support program, cash transfer, and other initiatives aimed at the implementation of Article 43 (1) (c) of the Constitution. This is in line with best practices in other countries such as Columbia, Mauritius, South Africa and India.

More details of the findings of the research project on the 20 counties can be found in the National Report on Food Security that the counties will receive from the University of Nairobi. The chapters that follow will present the key findings of the research for Migori County.

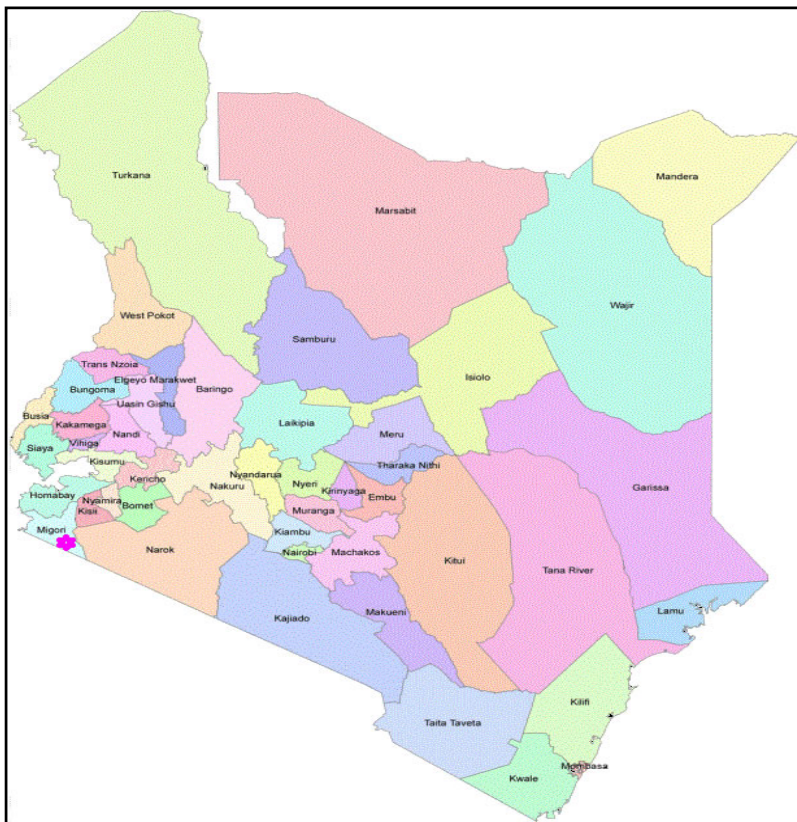
Migori County Food Security Research Findings

2.1 Introduction

Migori County is located in the Western part of Kenya in the former Nyanza Province, constitutes five (5) constituencies namely, Rongo, Migori, Uriri, Nyatike and Kuria; with four (4) districts which are Rongo, Awendo, Migori and Kuria. The county borders Homa Bay County to the West, Kisii County to the North East and Narok County to the East.

The county covers an area of 2,597 Km² has a population of 917,170 constituting 48 per cent males and 52 per cent females as of the year 2009 census with 43 per cent of population living below the poverty line in both rural and urban. Migori County has a population density of 353 people per Km² and a population growth rate of 3.05 per cent. Migori County's major urban center is Migori Town which is also the capital town.

Figure 6: Map of Migori County



2.2 Research Methodology

2.2.1 Research sample

Migori County was one of the counties selected from the Lowland Midlands agro-ecological zone. The research was carried out, in the county, between 26th June and 2nd July, 2013. The research was conducted in ten clusters from which 22 households per cluster were sampled using the National Sample Survey and Evaluation Programme (NASSEP) V frame by the KNBS. Table 3 details the ten clusters that were sampled using the NASSEP V frame by the KNBS which included Women Leaders, Political Leaders, Youth Leaders, and Leaders of Persons with Disabilities.

Table 5 below details the ten clusters where the household heads were interviewed in Migori County.

The data was collected using household questionnaire that was administered to 211 household (HH) heads.

2.2.2 Key Informant Questionnaire

The key informant questionnaire was used in interviewing community leaders on food security issues in their locality. The community leaders were interviewed on a one-on-one basis. A total of 20 key informant questionnaires were administered alongside the FGDs in Oruba Ward (Migori District, Suba East Division) and Awendo Ward (Rongo District, Awendo Division) for the two research tools where the opinions of community leaders included Women Leaders, Political Leaders, Youth Leaders, and Leaders of Persons with Disabilities.

2.2.3 Institutional Questionnaire

One (N=1) institutional questionnaire which sought to gather secondary data on food security was completed by County Development Officer.

2.2.4 Focus Group Discussion (FGD)

The FGDs were used as a tool for gathering the collective knowledge on food security. A total of 2 focus group discussions, with participants drawn from community leaders

Table 5: Clusters Sampled for Household Interviews in Migori County

District Name	Division Name	Location Name	Sub Location Name	EA Name (Cluster)
Migori	Suba East	Suna Ragana	Marindi	Market/A Beach
Migori	Nyatike	South Kadem	E. Kanyaruanda	Nyanguge
Migori	Muhuru	South East Muhuru	Nyakondo	Mathorogo 'A'
Rongo	Rongo	West Kamagambo	Kanyamamba	Ngere 'A'
Rongo	Uriri	East Kanyamkago	Arambe	Arambe 'B'
Rongo	Awendo	North Sakwa	Kadera Kwoyo	Pur Twang
Rongo	Awendo	Central Sakwa	Kanyagwala	Kanyauchi 'B'
Kuria West	Kehancha	Bukira East	Igena	Number Five
Kuria West	Mabera	Bugumbe West	Ngochoni	Mathare\Kubwaha
Kuria East	Ntimaru	Wangirabose	Wangirabose	Taragai "B"

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

who included women, men, youth, and persons with disabilities, were conducted in Oruba Ward of Migori District, Suba East Division and Awendo Ward (Rongo District, Awendo Division).

2.2.5 Debriefing Meeting

After gathering of data, the research team held a debriefing meeting as a source of information to give opportunity to the county and central government officials, community and opinion leaders, civil society organizations and the general populace to have useful exchanges about the food security situation in Migori County. A debriefing forum was held on 30th June, 2013 at Bliss Park Hotel in Migori Town's CBD. The forum brought together representatives from County and Central governments, Ministry of Agriculture officials, and civil society organization officials and community and opinion leaders

selected from participants of focus group discussions and key informant interviews of the integrated research. The purpose of the debriefing meeting was to share the preliminary findings with the participants and to give them an opportunity to review, input and validate the preliminary research findings on the status of food security in Migori County.

The following section presents the data collected, in Migori County, using the different tools and methodologies.

2.3 Key Research Findings

The key findings are organized along the following areas of interest: demographic characteristics of respondents; manifestation of food insecurity in the county; main sources of livelihood; food preservation and storage methods; government and donor support programmes in Migori County.



AWSC Research Team with a section of the Opinion Community Leaders and County Government officials after the Debriefing forum outside Bliss Park Hotel.

Demographic Characteristics of Respondents

A summary of demographic characteristics of the respondents interviewed during the Food Security Baseline Survey is illustrated by age, marital status and levels of education as outlined in the following sub-sections.

i) Respondents' Ages

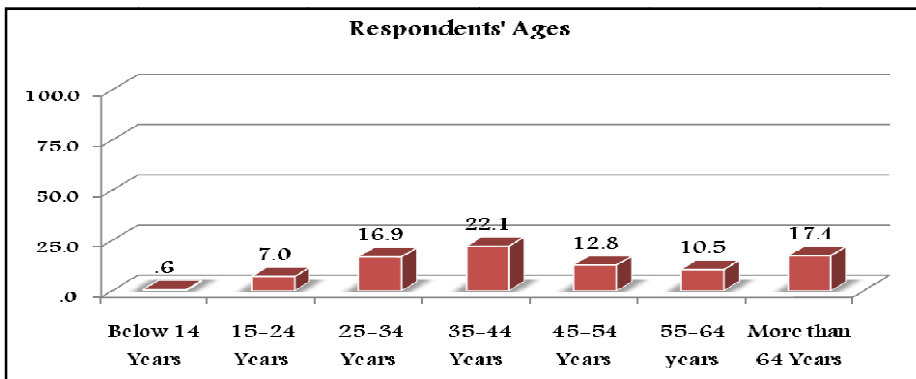
As illustrated in **Figure 7**, a summary of the analyzed data from the survey show that majority of the respondents interviewed in Migori County were in the age brackets of **35-44 years (22.1%)**, followed by **more than 64 years (17.4%)**, **25-34 years (16.9%)**, and **55-64 years (10.5%)**.

The other age groups represented in the interviews were **15-24 years (7.0%)** and **below 14 years (0.6%)** while the ages of 12.7 per cent interviewed household heads were not stated.

ii) Respondents' Marital Status

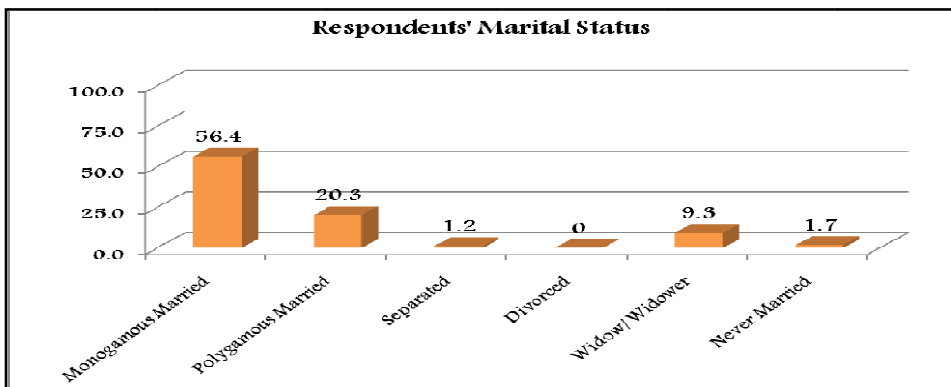
The study adopted the conventional socially accepted marriage categories among the target communities. The various categories included monogamy, polygamy, and separation, divorce, staying together and never married. The marital status of the House Hold Heads (HHs) is presented in Figure 8.

Figure 7: Ages of Respondents



Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

Figure 8: Respondents' Marital Status



Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

The findings illustrate that majority of the respondents at 56.4 per cent were in **monogamous marriages**, 20.3 per cent were in **polygamous marriages**; 9.3 per cent were **widowed**, 1.7 per cent indicated they were never married and 1.2 per cent said they were **separated** while 11.1 per cent of the interviewed household heads' marital status were not stated.

iii) Respondents' Education Levels

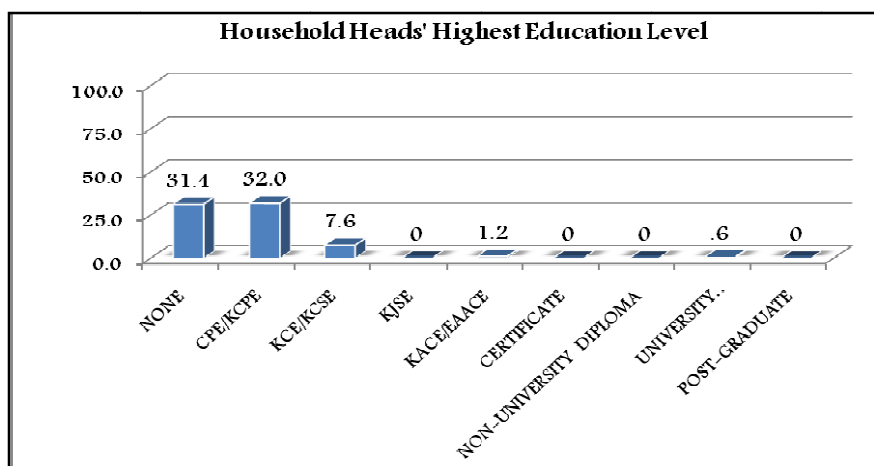
The study looked at the education level of the HH head as it is an important variable in food security as it improves an individual's opportunities and access to information and sources of livelihood. The findings on the level of education of respondents from Migori County are presented in Figure 9. The literacy level of household heads in Migori County shows that only 41.4 per cent of the interviewed household heads were

literate having received formal education with (32.0%) having attained Primary school education; (7.6%) Secondary school education; and only 0.6 per cent had attained University education. An overwhelming 31.4 per cent of the household heads had no education at all while 17.8 per cent did not state their literacy level.

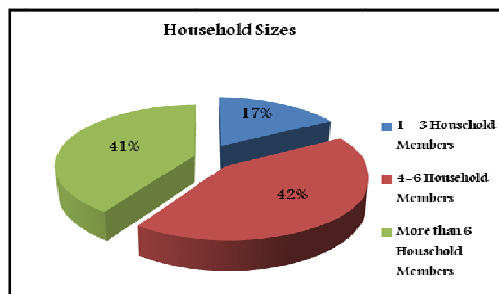
iv) Household Sizes

The size of the HH based on the number of members was considered an important determinant of HH food security. The HHs were classified into three groups: those with 1–3 members, 4-6 members and the largest HH size being considered as having more than 6 members. The study findings of HH sizes in Migori County are presented in Figure 10.

Figure 9: Respondents' Levels of Education



Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

Figure 10: Responds' Household Sizes

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

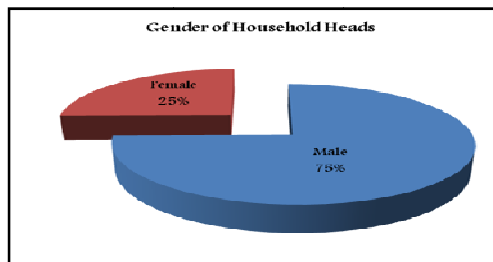
The research findings show that of the 211 households interviewed in Migori County, the largest proportion at 42 per cent had between 4-6 members while the lowest had, at 17.0 per cent, an average HH size of between 1-3 members. 41.0 per cent of the respondents had average HH sizes of more than 6 members.

v) Respondents' Gender

The gender of the household head looked at the biological sex, male or female, of the household head and the findings are presented in Figure 11.

The analysis of data collected during the research demonstrated that out of the 211 households heads interviewed in Migori

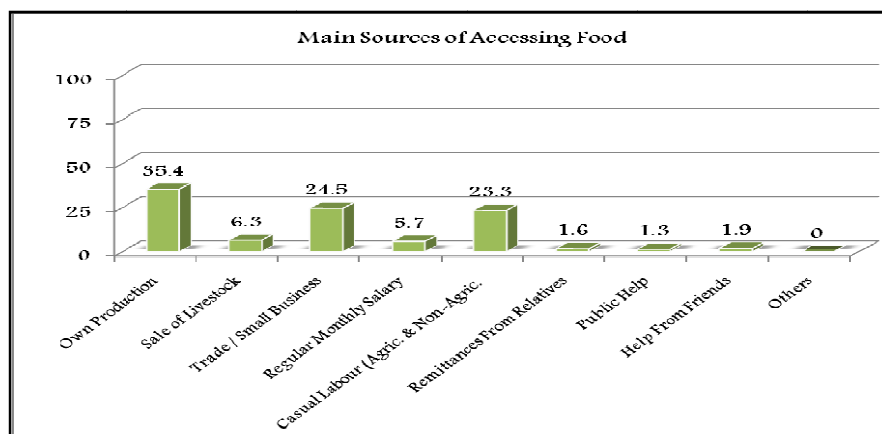
County, 75.0 per cent were male and 25.0 per cent were female.

Figure 11: Respondents' Gender

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

2.4 Main Sources of Accessing Food

Households have sustainable livelihoods when they can cope with and recover from shocks and stress (high and low food surplus) and can maintain their capabilities and assets without undermining their natural environment. Sustainable livelihood refers to people's capacity to generate and maintain their means of living, enhance their well-being and that of future generations (International Federation of Red Cross and Red Crescent Societies, 2006). Figure 12 shows the main sources of accessing food for the HHHs interviewed in Migori County.

Figure 12: Respondents' Main Sources of Accessing Food in Migori County

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

As shown in Figure 12, the main activities that enable residents of Migori County to access food in order of magnitude were crop farming/own production at 35.4 per cent, Trade/small businesses 24.5 per cent, casual labor (agriculture and non-agriculture) 23.3 per cent, regular monthly salary 5.7 per cent, sale of livestock (6.3%) and remittances from relatives at 1.6 per cent, help from friends (1.9%), and public help 1.3 per cent.

2.5 Food Security Situational Analysis in Migori County

This section shows the findings on the situation of HH food security in Migori County in the last 10 months prior to the Baseline Survey.

2.5.1 Hunger Indicators in Migori County in the Last Ten Months

The hunger module was used to determine the status of food security at the household level, by county, in the last 10 months before

the survey was done. The respondents were asked to rate the status of food security in their respective households based on the eight questions in the hunger module that assessed the four dimensions of food security namely, availability, accessibility, utilization and sustainability. The hunger module was used to measure the household's food security using a scale of *never*, *sometimes*, *often* and *always* to gauge the extent of food security. *Never* illustrated food security, *sometimes* a low manifestation of food insecurity, *often* indicated a moderate manifestation of food insecurity and *always* indicated a high manifestation or chronic food insecurity. Therefore, in each of the eight questions, a high percentage score in the scale of *never* shows that a household is more food secure. On the other hand, high percentages in the scales of *sometimes*, *often* and *always* indicate high level of food insecurity. The findings are presented in Table 6.

Table 6: Hunger Indicators in Migori County in the Last 10 Months

Hunger Indicators	Never	Sometimes	Often	Always
	per cent	per cent	per cent	per cent
E1: Did you worry that your household would not have enough food?	9.4	37.1	27.6	25.9
E2: Were you or any household member not able to eat the kinds of foods you preferred because of lack of resources?	6.5	37.6	31.8	24.1
E3: Did you or any household member eat a limited variety of foods due to lack of choices in the market?	25.3	43.5	14.1	17.1
E4: Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?	5.9	42.4	26.5	25.3
E05: Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough?	6.5	46.5	27.1	20.0
E06: Did you or any other household member eat fewer meals in a day because there was not enough Food?	7.1	47.0	26.8	19.0
E07: Was there a time when there was no food at all in your household because there were not enough resources to go around?	17.6	46.5	19.4	16.5
E08: Did you or any household member go to sleep at night hungry because there was not enough food?	26.5	41.8	16.5	15.3

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

E01. Did you worry that your household would not have enough food?

Worrying about not having food is a situation in which people lack food sustainability due to inconsistency of supply, access and utilization of food.

Table 6 reveals that in Migori County, 9.4 per cent of the households interviewed indicated that they *never* “worried that their households would not have enough food”, 37.1 per cent *sometimes* worried; 27.6 per cent *often* worried while 25.9 per cent *always* worried.

E02. Were you or any household member not able to eat the kinds of foods you preferred because of lack of resources?

As shown in **Table 6**, 6.5 per cent indicated that there was *never* a time their households were “not able to eat the kinds of foods they preferred because of lack of resources”; 37.6 per cent said they *sometimes* were not able, 31.8 per cent said they were often not able while 24.1 per cent said they were *always* not able.

E03. Did you or any household member eat a limited variety of foods due to lack of choices in the market?

As indicated in the same table, responding to a question on whether they or their household members “ate a limited variety of foods due to lack of choices in the market”, 25.3 per cent of the household heads in Migori County said they *never* did, 43.5 per cent said they *sometimes* did, 14.1 per cent indicated they *often* did and 17.1 per cent responded they *always* did.

E04. Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?

The research findings indicate that in Migori County 5.9 per cent of the interviewed household heads indicated they *never* had occasion when they ate food they did not prefer to eat because of lack of resources to obtain other types of food; 42.4 per cent said they *sometimes* did, 26.5 per cent cited *often* having to and 25.3 per cent reported to *always* having eaten food they preferred not to eat because of lack of resources to obtain other types of food.

E05. Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough?

The table demonstrates that in Migori County household heads’ responses to “whether members of their households ate smaller meals in a day because they could not afford enough”, 6.5 per cent indicated they *never* did, 46.5 per cent said they *sometimes* did, 27.1 per cent responded to have *often* done so and 20.0 per cent said they *always* ate fewer meals in a day because they could not afford enough.

E06. Did you or any other household member eat fewer meals in a day because there was not enough food?

The table exemplifies that the interviewed 7.1 per cent household heads reported *never* “ate fewer meals in a day because there was not enough food”, 47.0 per cent said they *sometimes* did, 26.8 per cent indicated they *often* did while 19.0 per cent responded they *always* did.

E07. Was there a time when there was no food at all in your household because there were not enough resources to go around?

The research findings on the question is presented in **Table 6** which reveals that at county level, 17.6 per cent of the interviewed household heads indicated that there was *never* a time when there was no food at all in their households, while 46.5 per cent said *sometimes* there was, 19.4 per cent there *often* was and 16.5 per cent signified there *always* was. The county had the third highest number of households in which there was a time when there was no food at all rated averaged at 35.9 per cent.

E08. Did you or any household member go to sleep at night hungry because there was not enough food?

Research results in Table 6 show that in Migori County 26.5 per cent of the respondents indicated that there was *never* a time when members of their households went to sleep hungry while 41.8 per cent cited there *sometimes* was, 16.5 per cent said there *often* were while 15.3 per cent responded there *always* were times when their household members went to sleep hungry.

2.5.2 Manifestation of Chronic Hunger Module for the Last Ten Months (with *often* and *always* scale combined)

The study investigated the extent of chronic hunger in Migori County by getting the average of the HHs that said that they were *often* and *always* hungry and that there was a time when there was no food at all in their household because there were not enough resources to go around and *often* and/or *always* they or members of their HHs household member went to sleep at night hungry because there was not enough food. The results, from Migori County, are shown in Table 7.

The findings show that on average, for 35.9 per cent of the respondents, there was *often/always* no food at all in the household because there were not enough resources to go around while 31.8 per cent of the respondents said they or members of their HHs *often/always* went to sleep at night hungry because there was not enough food. The overall average of those experiencing chronic food insecurity in Migori County was 34 per cent.

a) Hunger indicators by Age group of the Household Head

The study investigated the hunger by the age of the HHHs. The results of the hunger indicators by age of the head, in Migori County, are presented in Table 8.

Table 7: Manifestation of Chronic Hunger

E07. Was there a time when there was no food at all in your household because there were not enough resources to go around?	E08. Did you or any household member go to sleep at night hungry because there was not enough food?	Average
Often and Always	Often and Always	Often and Always
per cent	per cent	per cent
35.9	31.8	34

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

Table 8: Hunger Indicator by Age of Household Head

Age	E01: Did you worry that your household would not have enough food?	E02: Were you or any household member not able to eat the kinds of foods you preferred because of lack of resources?	E03: Did you or any household member eat a limited variety of foods due to lack of choices in the market?	E04: Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?	E05: Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough	E06: Did you or any other household member eat fewer meals in a day because there was not enough Food?	E07: Was there a time when there was no food at all in your household because there were not enough resources to go around?	E08: Did you or any household member go to sleep at night hungry because there was not enough food?
	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Below 14	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
15-24	25.0	16.7	8.3	12.5	12.5	20.8	8.3	4.2
25-34	36.2	37.9	20.7	29.3	31.1	27.6	15.5	12.1
35-44	28.9	30.3	15.8	23.7	25.0	21.1	22.4	21.1
45-54	22.7	15.9	15.9	25	15.9	18.2	11.4	6.8
55-64	25.0	27.8	13.9	25	22.3	26.5	30.6	27.8
Above 64	30.0	30.0	21.7	31.7	26.7	28.4	21.7	21.7
Total	31.1	29.8	20.9	28.2	26.3	27.5	23.0	20.5

Source: AWSC Baseline Survey on Food Security, June 2013.

Table 8 demonstrates that the household headed by individuals within the age bracket between 14 – 24 years were more likely to be food secure than those in other age categories. This age bracket had the lowest proportion of *with no food at all* in their household because there were not enough resources to go around at 8.3 per cent, and those household members who went to sleep at night hungry because *there was not enough food* at 4.2 per cent. On the other hand, HHHs in the age group of 0–14 years are more food insecure than those in all the other age brackets as an average of 50 per cent of respondents in the category indicated they *often or always* worry about not having

enough food and also *often or always* sleep hungry (50%). Respondents in the other youthful age groups of 15-24 years and 25-34 years had averages of 25.0 per cent and 36.2 per cent respectively that *often or always* worried about not having enough food and an average of only 4.2 per cent and 12.1 per cent respectively that *often or always* slept hungry. Averages of 28.9 per cent and 22.7 per cent respectively were recorded for respondents in the middle age groups of 35-44 years and 45–54 years that are *often and always* worried about not having food while 21.1 per cent and 6.8 per cent in the category indicated having often or always slept hungry. For household heads in the

older age groups of 55–64 and above 64 years, an average of 25.0 per cent and 30.0 per cent indicated having *often and always* worried about not having enough food while and average of 27.8 per cent and 21.7 per cent indicated to have *often or always* slept hungry because there was not enough food.

b) Hunger by Marital Status of the Household Head

Household food security was analyzed in terms of marital status of the household head. Table 9, presents the findings from Migori County on household food security based on the marital status of HH head.

The research findings illustrated in **Table 9** reveal that households headed by unmarried persons are more food secure than those headed by married people because no

respondent from the category indicated that “there was a time when there was no food at all in their households” and only 4.6 per cent said “there was a time when they slept hungry at night because there was no food to go round”.

Households in polygamous marriages are more food insecure than those in the monogamous marriages as 18.3 per cent from the monogamous marriages indicated “there was a time when there was no food at all in the household” compared to 22.9 per cent from polygamous households. The separated and the widowed seemed to have revealed almost the same level of food insecurity and their food security status are also comparable to those of their polygamous and monogamous married counterparts.

Table 9: Hunger Indicators by Marital Status of the Household Head

Marital Status	E01. Did you worry that your household would not have enough food?	E02. Were you or any household member not able to eat the kinds of foods you preferred because of lack of resources?	E03. Did you or any household member eat a limited variety of foods due to lack of choices in the market?	E04. Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?	E05. Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough?	E06. Did you or any other household member eat fewer meals in a day because there was not enough Food?	E07. Was there a time when there was no food at all in your household because there were not enough resources to go around?	E08. Did you or any household member go to sleep at night hungry because there was not enough food?
	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Monogamous	29.2	30.2	16.7	25.5	24.5	24.0	18.3	15.6
Polygamous	30.0	30.0	20.0	27.2	25.8	25	22.9	14.3
Separated	25.0	25.0	25.0	25	25	25	25	3.6
Widow/ Widower	25.0	18.75	15.7	34.4	21.9	21.9	18.8	23.9
Never married	16.7	0	0	0	0	0	0	4.6
Total	25.2	20.8	15.5	22.4	19.4	19.2	17.0	12.4

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

c) Hunger Manifestation by Education Levels of Household Head

Education was considered a key variable in determining HH food security due to the opportunities it provides, including access to information, among others. The study set out to investigate the relationship between the levels of education of the HH head and the status of HH food security. The findings, for Migori County, are presented in Table 10.

The findings presented in Table 10 demonstrate that Households with heads with primary level of education had the highest proportion who indicated they always or often do not have any food at all in their households because there were no enough resources to go round” rated at 20.0 per cent. Those with pre-school level of

education followed with 18 per cent while households with heads who had secondary and above level of education were 6.7 per cent. For the households that had a time when they went to bed hungry, households headed by heads with preschool level of education were also rated highest with 16.1 per cent followed by households with heads with primary education rated at 15.5 per cent, while those with secondary education were rated at 6.7 per cent. This clearly reveals that “the more educated a household head, the more food secure and the less hungry his household”.

d) Hunger Indicators by Household Size

The findings on the relationship between hunger and household size, in Migori County, are presented in Table 11.

Table 10: Manifestations of Hunger According to Levels of Education

Level of Education	E01: Did you worry that your household would not have enough food?	E02: Were you or any household member not able to eat the kinds of foods you preferred because of lack of resources?	E03: Did you or any household member eat a limited variety of foods due to lack of choices in the market?	E04: Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?	E05: Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough	E06: Did you or any other household member eat fewer meals in a day because there was not enough Food?	E07: Was there a time when there was no food at all in your household because there were not enough resources to go around?	E08: Did you or any household member go to sleep at night hungry because there was not enough food?
	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Pre-School	32.1	28.3	21.7	26.4	27.4	27.4	18.0	16.1
Primary	26.4	29.1	13.7	25.5	23.7	22.3	20	15.5
Secondary	20.0	20.0	16.7	16.7	10.0	10.0	6.7	6.7
University Diploma & Degree	0	0	0	0	0	0	0	0
Total	19.6	19.4	13	17.1	15.3	14.9	11.1	9.6

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

Table 11: Manifestations of Hunger According to Household Size

Household Sizes	E01: Did you worry that your household would not have enough food?	E02: Were you or any household member not able to eat the kinds of foods you preferred because of lack of resources?	E03: Did you or any household member eat a limited variety of foods due to lack of choices in the market?	E04: Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?	E05: Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough	E06: Did you or any other household member eat fewer meals in a day because there was not enough Food?	E07: Was there a time when there was no food at all in your household because there were not enough resources to go around?	E08: Did you or any household member go to sleep at night hungry because there was not enough food?
	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
1–3 persons	24.2	25.9	17.2	27.6	20.7	25		17.2
4–6 persons	28.9	28.9	16.2	28.2	26.8	21.9	18.3	16.2
More than 6 persons	26.1	27.5	14.5	23.2	21.0	23.5	16.0	15.2
Total	26.4	27.4	16.0	27.9	22.8	23.5	18.3	16.2

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

Table 11 indicates that Migori County respondents, when asked “whether there was a time when there was no food at all in households because there were not enough resources”, the average responses for *often* or *always* were 20.7 per cent for respondents with 1–3 persons in households against 18.3 per cent of their counterparts with 4–6 persons and 16.0 per for households with more than 6 members. Responding to “whether they or their households slept hungry because there was not enough food”, 17.2 per cent of households with 1–3 members answered in the affirmative while only 16.2 per cent and 15.2 per cent of households with 4–6 and more than 6 members, respectively, gave a **yes** answer.

e) Hunger Indicators by Gender of the Household Heads

The study considered the gender of the HH head as a key determinant given the

different roles played by men and women in regard to food security. Table 12 presents the findings of the status of HH food security based on the gender of the head of the household in Migori County.

As illustrated in **Table 12**, it is revealed that female headed households were more food insecure than the male headed ones with an average 31.1 per cent female respondents indicating they worry about not having food for their households compared to 28.9 per cent for their male counterparts. To measure severity of hunger among the male headed households and those headed by women responses to the question “whether there was a time when there was no food at all in the household because there were not enough resources to go round”, only 17.0 per cent of the male respondents answered in the affirmative unlike the 27.0 per cent responses from the female respondents. On the question on “whether there was a time

Table 12: Hunger Indicators by Gender of the Household Head

Gender	E01: Did you worry that your household would not have enough food?	E02: Were you or any household member not able to eat the kinds of foods you preferred because of lack of resources?	E03: Did you or any household member eat a limited variety of foods due to lack of choices in the market?	E04: Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?	E05: Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough	E06: Did you or any other household member eat fewer meals in a day because there was not enough Food?	E07: Was there a time when there was no food at all in your household because there were not enough resources to go around?	E08: Did you or any household member go to sleep at night hungry because there was not enough food?
	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always	Often & Always
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Male	28.9	28.0	17.5	24.3	22.5	20.3	17.0	15.2
Female	31.1	31.1	16.2	32.4	28.4	28.4	27.0	21.6
Total	30.0	29.6	16.7	28.4	25.5	24.4	22.0	18.4

Source: AWSC Baseline Survey on Food Security, June 2013.

when they ate smaller meals because of lack of resources to obtain enough food”, again, the female respondents were higher as 28.4 per cent answered in the affirmative as opposed to 22.5 per cent of their male counterparts which can be attributed to the fact that mothers always ensure other household members are fed before they themselves can eat. Averages for households that slept hungry at night because there was not enough food”, the male headed households, had 15.2 per cent unlike 21.6 per cent for households headed by women.

2.6 Food Preservation and Storage Methods

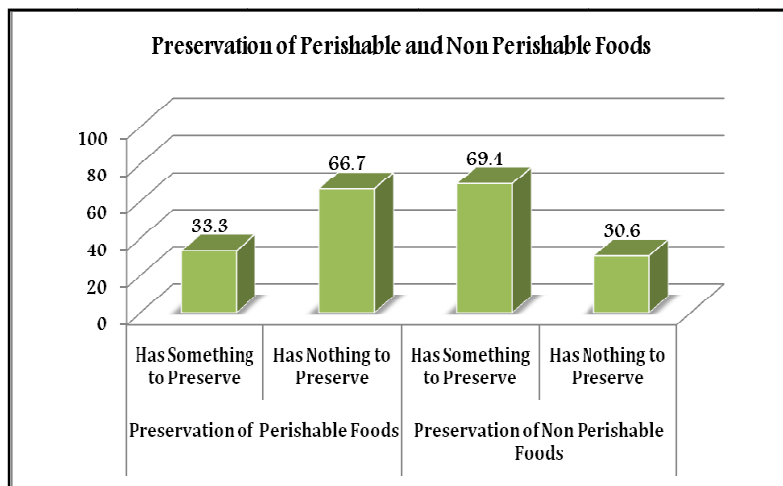
Preservation of post-harvest surpluses of seasonal food crops such as cereals, fruits and vegetables, is an important aspect of food security, as it makes them available and

affordable during off season. According to FAO (1997), better home and community food processing, preservation and storage and access to marketing facilities can contribute to household food security by alleviating seasonal shortages in food supply and stabilizing market prices. Poor preservation and storage of post-harvest surpluses results in post harvest wastage and food insecurity at the household level. The findings on preservation and storage of post harvest surpluses in Migori County are presented in the following sub-section.

i) Preservation of Perishable and Non-Perishable Foods

The study investigated on preserving, by the target HHs, of excess non-perishable and perishable foods. The findings are presented in Figure 13.

Figure 13: Preservation Methods for Perishable and Non-Perishable Foods



Source: AWSC Baseline Survey on Food Security, June 2013.

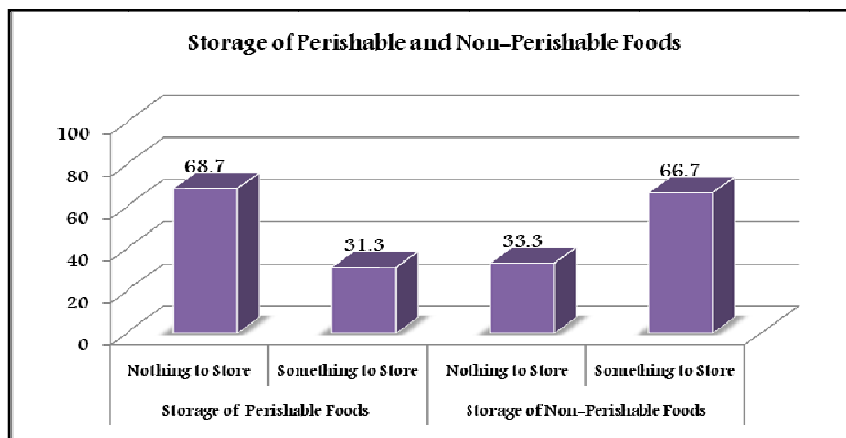
Figure 13 shows that 66.7 per cent of households interviewed had no perishable foods to preserve while 30.6 per cent of them indicated they did not have non-perishable foods to preserve.

Of the 33.3 per cent that had perishable food to preserve, 7.4 per cent stated they use drying to preserve perishable foods, 3.1 per cent use fridges/freezers while 0.1 per cent use ash, with another 0.1 per cent using salt and 1.9 per cent using other preservation methods for perishable foods. For the 69.4 per cent of the respondents that indicated they had non-perishable foods to preserve, 34.3 per cent said non-perishable foods such as grains are mainly preserved by drying, while 3.6 per cent indicated they apply ash, 32.5 per cent reported using other preservation methods for non-perishable foods. Some of the other preservation methods for non-perishable foods included hanging on trees, hanging in own house, and hanging in neighbor's house.

ii) Storage of Perishable and Non-Perishable Foods

Figure 14 illustrates the answers provided by respondents in Migori County on storage methods for perishable and non-perishable foods. 68.7 per cent of the respondents said they had no perishable foods to store while 33.3 per cent indicated they did not have non-perishable foods to store. Of the 33.3 per cent of respondents that indicated they had perishable foods to store, 6.1 per cent said they use granaries, 1.4 per cent said they hang on trees, 14.3 per cent signified they hang in their own houses and 9.5 per cent said they use other storage methods. For non-perishable foods, the 66.7 per cent that had non-perishable foods to store used granaries 23.6 per cent, hanging on trees 0.6 per cent, hanging in own house 6.7 per cent, store in neighbor's house 3.0 per cent and 32.1 per cent, indicated they use other unspecified storage methods.

Figure 14: Storage Methods for Perishable and Non-Perishable Foods



Source: AWSC Baseline Survey on Food Security, June 2013.

2.7 Government and Donor Support Programmes in Migori

There are various social protection programmes by development agencies including the Kenya Government and local and international donors, with an aim of promoting household resilience to food insecurity of people who lack access to sufficient food to meet their daily needs. The programmes often target vulnerable categories of society, among them orphans and vulnerable children (OVCs), people living with HIV and AIDS, persons with disability and the vulnerable elderly. The programme is implemented through relief food and/or through cash transfer. This section presents the findings on the various food support programmes in Migori County.

2.7.1 Beneficiaries and Ratings of the Available Food Support Programmes

The participants identified and rated various food support programmes that are presented in Table 13. The findings show that the three main programmes at 1.2 per cent each from

which respondents received support from were: the OVC Cash Transfer Programme, Receiving Food Rations and, Constituency Bursary Fund Support.

The findings show that the *Orphans and Vulnerable Children's Cash Transfer Programme* was rated by 21.2 per cent as adequate, 37.8 per cent as good, and 57.8 per cent said the services are average.

0.6 per cent of the interviewed respondents also confirmed they are beneficiaries of the *Vulnerable Elderly Persons Cash Transfer Programme*, with 23.2 per cent of them indicating that the support provided by the programme is adequate. 32.7 per cent of those respondents that receive the support rated the services provided by the programme as good while 48.1 per cent said the services are average. For the *Hunger Safety Net Support*, although none of the respondents were beneficiaries, 20.0 per cent of them said the support provided is adequate with 32.4 per cent rating its services as good and 37.8 per cent saying the services are average.

Table 13: Available Government/Church/Donor Support Programmes

Type of Support	Households that Received Support Programmes	Rating the Adequacy of the Programme	Rating the Quality of Services Provided by the Programme	
		Adequate	Good	Average
	per cent	per cent	per cent	per cent
Receive Help from Orphans and Vulnerable Children Cash Transfer Programme	1.2	21.1	37.8	57.8
Receive Help from Vulnerable Elderly persons Cash Transfer Programme	0.6	23.2	32.7	48.1
Receive Hunger Safety Net Support	0.0	20.0	32.4	37.8
Receiving Food Rations	1.2	11.8	16.6	45.0
Receive Help from HIV/AIDS Support Programme	0.0	0.0	0.0	0.0
Irrigated Farming Support	0.0	27.3	21.1	47.4
Food for Work Programme	0.0	0.0	0.0	0.0
Seeds and Fertilizer Inputs Support	0.6	20.9	25.4	54.0
Constituency Development Fund Support	0.0	16.4	15.2	47.0
Constituency Bursary Fund Support	1.2	22.3	15.5	57.7
National Fund for the Disabled in Kenya Support	0.0	12.0	4.8	25.9
School Feeding Programmes	0.0	26.7	47.6	57.8

Source: AWSC/KNBS Baseline Survey on Food Security, June 2013.

On receipt of *Help from the HIV+AIDS Support Programme*, none of the interviewed respondents benefit from the programme.

1.2 per cent of respondents indicated they are recipients of *Food Rations Support* but only 11.8 per cent rated it as adequate with 16.6 per cent of the respondents rating the services provided by the programme good while 45.5 per cent rated the programme's services as average. None of the respondents were recipients of *Food for Work Programme*. 20.9 per cent of respondents said the *Seeds and Fertilizer Inputs Support* in the county is adequate and 25.4 per cent rated its services as good while 54.0 per cent rated them as average.

The *Irrigated Farming Support* which although none of the respondents was a recipient, 27.3 per cent of them said the support is adequate with 21.1 per cent rating its services as good and 47.4 per cent rating them as average.

The other available government support programmes in the county are the *Constituency Development Fund Support* and

Constituency Bursary Support Fund. 16.4 per cent of the respondents indicated that the Constituency Development Fund Support was adequate, whereas 15.2 per cent of those respondents rated the programme's services as good, and 47.0 per cent said that the services were average. For the Constituency Bursary Fund Support 22.3 per cent of the respondents indicated that it was adequate and 15.5 per cent rated its services as good while 57.7 per cent rated them as being average.

2.8 Key Informant Information on Food Security Issues

2.8.1 Main Livelihood Activities

The major livelihood activities in Migori County were crop farming, small retail business, handcrafts, mining, livestock keeping, and casual employment. Eleven per cent of the female key informants interviewed in Migori reported that they were involved in crop farming while 89 per cent of the male respondents were involved. More men than women were involved in

livestock keeping, mining and handcrafts. A similar proportion of women and men indicated that they depended on donor support for livelihood. The percentages of women and men that reported that engagement in small business was a major livelihood activity were 33 and 67 respectively.

2.8.2 Main Food and Consumption Patterns

When the key informants in Migori were asked what their main food was, more men than women indicated *ugali* as their main food. When asked what they ate their main meal with, again more men than women indicated that they ate their main food with green vegetables. Other foods consumed in Migori included bananas, rice, legumes, tubers, milk, other cereals, groundnuts, fruits and meat.

2.8.3 Challenges in Engaging in Livelihood Activities

Women cited poor soils as the main challenge in engaging in agriculture which is their main livelihood activity. Men, on the other hand, reported that low and unreliable rainfall, high cost of inputs, insecurity and lack of markets were the main challenges in engagement of livelihood activities.

2.8.4 Access to Food

Sixty seven per cent of female respondents indicated that they produced their own food while 33 per cent of the male respondents reported that they grow their own food. Fewer female respondents (33%) accessed food by purchasing while only 67 per cent of the male respondents purchased food.

2.8.5 Opinion on Food Adequacy

When the respondents were asked if they have adequate food, 85.7 per cent female

and 14.3 per cent male respondents considered that area of the country to be having adequate food.

2.8.6 Coping Strategies

From the interviews with the key informants, women and men used different coping strategies at different proportions to cope with food shortage. Borrowing food seemed to be the only coping strategy for women at 20 per cent, compared to men at 80 per cent. Men on the other hand had various options in coping with food shortage which included; casual labor, help from relatives, buying food on credit, selling animals like sheep and goats, and selling household items.

2.8.7 Access to Land and Use

When the informants were asked if men and women had equal access to land, the percentage of women and men who said yes was similar at (50%). Asked what they used land for if they had access, women and men informants mentioned crop farming, livestock keeping and construction of rental houses. More men than women used the land for crop farming at 87.5 and 12.5 percentages respectively. Men also used the land for livestock keeping and construction of rental houses.

2.8.8 Availability of Markets

The respondents were also asked if there were markets to buy food or sell their produce. Thirteen per cent of the women said markets to sell produce were available while 87 per cent men said markets were available to sell produce. On availability of markets to buy food, 89 per cent men said markets were available while only 11 per cent of women reported availability of markets to buy food.

2.8.9 Access to Government Food Programmes

Asked how they accessed government food support related programmes, a similar proportion (50%) of the men and women indicated that they accessed through provision of farm inputs. Twenty five per cent of the women also said they accessed the programmes through capacity building for group members, with 75 per cent of the men reporting the same. Men also indicated that they accessed help through provision of food and loans.

2.8.10 Suggestions to Improve Government Food Support Programmes

When asked about suggestions on how to improve government support programmes, women respondents mentioned capacity building of farming groups, sensitization of people through community leaders and up-scaling the provision of inputs as the most important suggestions. Men on the other hand suggested increase in extension services, provision of financial assistance, capacity building and making the programme accessible to all.

2.8.11 Opinion on Community Involvement

When the key informants in Migori were asked their opinion on community involvement to address food insecurity, all of the men respondents rated the community as being *very actively involved*, compared to 20 per cent women.

2.8.12 Socio-economic Factors Hindering Attainment of Food Security

When the respondents were asked about economic and social related issues that hinder achievement of food security, the differences in magnitude of responses

between men and women were evident. Women respondents indicated lack of agricultural extension services as the main economic hindrance. Men on the other hand mentioned high cost of seeds, small and uneconomical pieces of land, lack of extension services, unemployment and lack of income as the major hindrances. On social issues, women cited lack of decision making on land and bad cultural practices as hindrances to attainment of food security while men indicated negative attitude towards agriculture, bad cultural practices, drug and alcohol abuse as social issues that hinder attainment of food security.

2.8.13 Options that Could be Used to Ensure Attainment of Food Security

Most women respondents indicated key suggestions as; provision of affordable inputs especially the fertilizers, and provision of proper storage facilities. Men on the other hand, recommended better yielding crops, access to extension services, and creation of employment and provision of affordable seeds.

2.9 Challenges to Food Security in Migori County

As shown in the research findings, Migori County faces food insecurity with 31.8 per cent of respondent's *always* and *often* going to bed hungry and on average, 34 per cent of the respondents experiencing chronic food insecurity. The participants cited the following challenges as major hindrances to the achievement of food security in Migori County:

- i) Poor infrastructure which results to high food prices in the county in addition to hampering marketing activities as a result of the poor road network;

- ii) Erratic changes in climatic conditions i.e. floods during long rains and extreme drought in dry seasons;
- iii) Inadequate parcels of land for food production attributable to competition from tobacco and sugarcane growing. Incomes from cash crops hardly benefit women and children;
- iv) Lack of access to effective agricultural extension services and support by small scale farmers which results in lack of quality farm inputs and ignorance of new agricultural technologies/methods of farming;
- v) Negative attitudes towards agriculture as a livelihood activity which leads to desertion of agricultural work by youth and men;
- vi) Excessive consumption of alcohol and drug abuse by youth and men who earn money from cash crop farming, mining, fishing and boda boda business. Lack of capital to start agri-business projects or purchase adequate stock to expand small businesses as a result of high interest rates charged on loans by microfinance organizations;
- vii) Exploitation by wealthy middlemen from outside the county;
- viii) Insecurity in most parts of the county where thieves steal crops and animals from farms and merchandise from traders;
- ix) Lack of employment opportunities in the job market and low wages for people employed as casual laborers;
- x) High levels of poverty among communities;
- xii) A large gender gap which leads to inequality and overwork for women leading to high levels of dependency. Families tend to be large due to polygamy, HIV+AIDS;

- xii) Social, cultural and traditional values which obstruct development at many levels.

In conclusion, Migori County can be self-sufficient in food production if issues raised by households in this study are addressed. Food security is a sector-cross-cutting issue hence, its implementation cuts across different economic sectors and policies of a country. For Migori County and Kenya as a whole, food security is crucial in the achievement of Vision 2030 in relation to the economic, social and political pillars, Article 43 of the Kenya Constitution 2010, and in the attainment of the Millennium Development Goals. ***Food security should therefore become an integral part of the country's various policies.***

2.10 Summary of Research Findings

In summary, the research findings in Migori reveal that respondents outlined their main ***Sources of Accessing Food or Sources of Livelihood*** as crop farming or own production (35.4%), trade/small businesses (24.5%); casual labour (agriculture and non-agriculture) (23.3%), sale of livestock (6.3%), regular monthly salary (5.7%); remittances from relatives (1.6%); help from friends (1.9%), and public help (1.3%). The findings show that although there are various sources of livelihoods, Agriculture (own production/crop farming) is dominant followed by de/small businesses, casual labor (agricultural, on-agriculture), sale of livestock regular salary among others; hence the AWSC has made proposals on how to improve food security in these three categories.

In regard to storage, 68.7 per cent of the respondents said they had no perishable foods to store while 33.3 per cent indicated they did not have non-perishable foods to store. For the 33.3 per cent of respondents

that indicated that they had perishable foods to store, they mainly used traditional methods for storage. These included 14.3 per cent who signified that they hang them in their own houses, use granaries at 6.1 per cent, 1.4 per cent hang them on trees, while 9.5 per cent said they use other storage methods. For non-perishable foods, the 66.7 per cent that had non-perishable foods store used granaries 23.6 per cent, hanging on trees 0.6 per cent, hanging in own house 6.7 per cent, store in neighbor's house 3.0 per cent, and 32.1 per cent indicated they use other unspecified storage methods.

The findings show that on average for 35.9 per cent of the respondents *often/always*

had no food at all in the household because there were not enough resources to go around while 31.8 per cent of the respondents said they or members of their HHs *often/always* went to sleep at night hungry because there was not enough food. The overall average of those experiencing chronic food insecurity, in Migori County, was 34 per cent. This means that to achieve county level food security, it will be important to address the various challenges to food security while at the same time, strategically targeting the individual needs of the food insecure households.

Discussion and Analysis

This chapter focuses on the discussions of key findings on food availability, access, sustainability and utilization of the Baseline Survey, in Migori County. The discussions focus on the key areas that were addressed by the household survey namely: demographic data; main sources of accessing food; and other general issues relating to food security such as availability, access, consumption and sustainability that were raised by participants from Migori County.

3.1 Demographic Data and Hunger

a) The relationship between age and hunger

The research findings reveal that household heads in the age group of below 14 years are more food insecure than those in the age brackets of 15-24 and 25-34 years. Some children aged between 12-14 years are household heads due to early marriages while others became household heads after death of their parents; hence, they are more vulnerable to food insecurity because they have little capacity to produce or access enough food. On the other hand, household heads in the age group of 15-34 years are stronger (youthful) and probably have better education which enables them to engage in various productive activities, hence they are more food secure than those in the age bracket of below 14 years.

The age of the household head has an inverse relationship between the age of household head and food security. It indicates that an increase of age year in the

age of household head decreases the chances of food security i.e. the household heads in the age groups of 35-44, 45-54 and 55-64 years and more than 64 years are more food insecure than those in the age brackets of 15-24 and 25-34 years. This can be attributed to the fact that the youth have a greater productivity potential than the elderly. Household heads in the age bracket of 55-64 and those more than 64 years are the most food insecure and their vulnerability to food insecurity is not surprising when considered in the context of life for older adults. For instance, their income is often limited with many depending on pension and Social Security benefits, with the majority of seniors not working or retired.

In addition to lacking money to purchase food products, older adults face unique barriers less often experienced by other age groups in accessing enough food and adequate nutrition. Research has shown that food insecurity in older adults may result from one or more of the following: functional impairments, health problems, and/or limitations in the availability, affordability, and accessibility of food (Lee & Frongillo, 2001). Additional contributing factors to food insecurity among the elderly include lack of mobility due to lack of transportation and an inability to use food because of health problems or disability.

b) Marital status and hunger

The relationship between marital status of respondents and status of household tends

to reveal the level of food security in a household. The study reveals that households headed by unmarried people are more likely to be food secure than those headed by married people because the married are likely to have larger families than the single household heads. The findings also reveal that household heads in polygamous marriages are more food insecure (19.2%) than those in the monogamous marriages (7.7%). This could be attributed to the fact that household heads in polygamous marriages require more resources to buy enough food and other basic household needs compared to those in monogamous families. Large household sizes in polygamous families also require a lot of land for food production, which might not be available due to the high rate of population in the country. Although households headed by divorced, separated and widowed household heads are expected to be more food insecure, households headed by those “in a living together” type of relationship registered high levels of food insecurity. The possible explanation for this finding is that “living together” could be a food security coping strategy by some household heads compelled to enter into relationships due to financial constraints.

c) **Gender of household head and food security**

Other surveys also reveal relatively similar demographic characteristics e.g. the Kenya Population and Housing Census (2009) indicates the population of females at 50.2 per cent and males 49.8 per cent; and additionally indicate that 70.2 per cent of households are headed by males against 29.8 per cent which are headed by women. Similarly, the Kenya Demographic and Health Survey (2008-2009), indicates that the household population comprise 49 per cent male and 51 per cent female (**Kenya National**

Bureau of Statistics, 2010. Out of the total population of 917,170 in Migori County, 48 per cent are males and 52 per cent are females as revealed in the Kenya Population and Housing Census (2009). From these research findings, it is apparent that there was a high probability of females being interviewed during the survey. The analysis of data gathered during the baseline survey revealed that majority of the respondents interviewed were female 62.4 per cent, while male were 37.6 per cent; although majority of the households were headed by male 75 per cent while the female headed households were only 25 per cent. According to the guidelines of the baseline survey, the key respondents were household heads, but in their absence, the senior most member of the household available at the time of data collection was to be interviewed. During the data collection, some enumerators did not find the male household heads because they were either working or attending to various issues away from the homes; hence, they were not interviewed. The assumption which to some extent may justify why most respondents were female is that, in the rural areas, women are generally inclined to work within the homes whereas men work away from homesteads, which makes it difficult to find them at home during the day.

The research findings reveal that female headed households are more food insecure than the male headed ones; a situation that may be attributed to various forms of discrimination, which make female-headed households more vulnerable to food insecurity and poverty. Although the position of women in agricultural food chains is critical, they encounter many obstacles due to restricted land rights, inadequate education and outdated social traditions which usually limit their ability to improve food security status for their households and communities at large.

Women also face different forms of discrimination, such as greater reluctance on the part of input providers to provide credit for fertilizer purchases for female headed households than for male headed households and less scope to borrow money or to buy food on credit. Consequently, food security experts affirm the need to support the contribution of women to food security by guaranteeing equal constitutional rights to land and property, involvement in the marketplace, and opportunities for education. Therefore, whether in terms of labor input, decision-making, access to or control of production resources, gender issues should be mainstreamed in food security programmes aimed at resolving food insecurity.

d) Relationship between level of education of HHH and food security

The research findings show that education was also found to have a significant and positive relationship with household food security. The findings indicate that relatively better educated household heads are more food secure than those headed by uneducated or low educated household heads. From the information gathered, it is also revealed that the literacy level in Migori County is relatively low with 31.4 per cent of respondents having no formal education and 32.0 per cent having only primary education. This is attributed to high school dropouts as youth are tempted to make quick money by engaging in activities such as tobacco picking, fishing, boda boda transportation, mining and jua kali business that lead to non-completion of schooling by most local youth in the county.

Low literacy level has adverse effect on food security because it impedes access to and utilization of agricultural information for household food security by farmers. Education was also found to have a

significant and positive relationship with household food security and the findings indicate that households with relatively better educated household heads are more likely to be food secure than those headed by uneducated household heads, probably because the educated household heads are aware of repercussions of food insecurity in households.

Food insecurity and education are closely linked and are widespread in many parts of the county and these challenges are serious, particularly in rural areas where food insecurity, poverty and educational deprivation often create a vicious circle. Moreover, there is low understanding of the linkage between national food security, basic education, water and sanitation strategies on one hand, and nutrition on the other (Republic of Kenya, 2008). Therefore, the county government should improve the education sector since learning improves the ability of people to diversify resources and activities, increase output and income, promote resilience and competitiveness, access information on health and sanitation, and strengthen social cohesion since these are all essential elements to ensure food security in the county.

e) Relationship between household size and food security

Another demographic concern noted during the survey was the large family sizes among the communities in the region with 42 per cent of respondents indicating that the size of their families was over 6 members which is a result of high level of polygamy in the region. Although this is expected to have a negative outcome on food security as men subdivide land among wives and/or sons hence, inadequacy of land available for agricultural activities, the research findings in the county, however, reveal that depth and severity of food insecurity was high among

families with smaller household sizes than among those with large household sizes. This may be attributed to the fact that the larger the household (because of the greater the responsibilities) are better planners of their incomes. Under normal circumstances, as family size increases, the amount of food for consumption in one's household increases as every additional household member shares the limited food resources. In reality, an increase in household size indirectly reduces income per head, expenditure per head and per capita food consumption. Additionally, in areas where households depend on less productive agricultural land, increasing household size results in increased demand for food; which demand, however, cannot be matched with the existing food supply from own production, which ultimately leads to household food insecurity. Contrary to obvious expectations, the research the findings in Migori show that households with large household sizes were more food secure than among those with small household sizes.

3.2 Main Sources of Accessing Food

Livelihood is the means of making a living and in the food security context, it refers to people, their capabilities, their assets, their incomes and activities needed to sustain a means of living, which includes ways to obtaining food. Households have **sustainable livelihoods** when they can cope and maintain their capabilities and assets without undermining their natural environment. Sustainable livelihood on the other hand refers to people's capability to generate and maintain their means of living, enhance their well-being and that of future generations (International Federation of Red Cross and Red Crescent Societies, 2006).

Although crop farming is the main source of livelihood, Migori County is currently one of the most food insecure counties

nationwide ranked third after Turkana and Kisii Counties. The respondents stated that crop farming has largely been affected by limited availability of land, erratic weather conditions, lack of agricultural extension services, poor infrastructure and declining labour supply in farms since most of the youth prefer boda boda business to working in farms.

Trade/small business, which is the second main source of livelihood in the county is affected by insufficient capital, high interest rates on business loans and poor transport infrastructure. Casual labor, which ranks the third main source of livelihood in the county, is affected by lack of employment opportunities which are limited and mostly not well paying. Livestock keeping on the other hand has not thrived in the county due to insufficient land for keeping animals and theft of animals which make many farmers shy away from keeping livestock. The views of opinion/community leaders in the integrated research from key informant interviews and focus group discussions in Migori County reveals that 36 per cent indicated crop farming as the main source of livelihood while 32 per cent cited Trade/Small businesses, 12 per cent said Livestock keeping, another 12 per cent said Support by groups and donors, and 4 per cent said Handicrafts and Mining respectively. This information clearly indicates that the people's main source of livelihood in the county is Agriculture (48 per cent for both crop and livestock farming) but households are deficit producers of food crops due to widespread growing of cash crops such as sugarcane and tobacco. They also said that proceeds from cash crops and minerals in the county are not used to realize food security requirements; rather, they are carelessly misspent (especially where men and youth are engaged in the production).

This has led to the prevalence of HIV/AIDS in Migori County which in turn has robbed the county of its productive population and increased the number of orphans and vulnerable children.

Measures to improve food security in the county should aim at promoting crop production which most citizens depend on as a source of livelihood although the leaders complained that the quantity and quality of agricultural extension services have declined in the last two decades due to inadequate human resource and underfunding of the sector ministries; hence there is low adoption of agricultural technology as a result of limited research and poor link between farmers and extension officers. The constraints to economic activities that negatively impact on food security include: *Low soil fertility*, low quality of seed reserve and planting materials, low technical skills/knowledge and cost of key farm inputs (i.e. seeds and fertilizers) affect crop production. Prevalence of animal and crop diseases, limited access to capital and credit facilities also lead to high post harvest losses due to inappropriate handling of agricultural produce as well as livestock products. Additional constraints to livestock production in the county include poor or low yielding animal genetic stock, endemic pests and diseases, and low prices for animals.

Lack of capital to expand businesses, weak purchasing power and weak financial services were identified as impediments to the development of small enterprises and unsuccessful business activities which culminates in traders not having sufficient income to purchase enough food. Underdeveloped infrastructure in most parts of the county affects distribution and marketing of farm inputs and agricultural produce, respectively.

The county government of Migori should adopt India's National Rural Employment Guarantee Act (NREGA), a poverty alleviation programme that has managed to make many of its poor people food secure by guaranteeing them a hundred days of employment per year in green jobs (Amita, 2005) for 15.6 per cent of its residents who derive their livelihood from casual labor in agriculture and non-agriculture ventures. The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was enacted on 7 September 2005 to provide for the enhancement of livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in every financial year to every household.

For the agriculture sector, the county government should adopt Malawi's Fertilizer Subsidy Programme, which aims to raise household and national food security through increased access to farm inputs, would enhance the county's food security for its 56.1 per cent residents who engage in farming activities as their main source of livelihood. This programme targets 1.5–1.7 million each year farmers who are provided with two coupons to buy fertilizer at a subsidized price.

The coupons are distributed by the Ministry of Agriculture to districts and traditional authorities, including village chiefs, who distribute the coupons to identified recipients. If adopted, initially the programme can target maize and other cereal farmers and then can be expanded to cover other food and cash crop growers. Additionally, Brazil's Food Acquisition Programme where food from smallholder farmers or their organizations is purchased by a government agency at market prices and distributed to local social organizations or to food-insecure people, could also be

adopted by the county government. For the 4.7 per cent engaged in trade/small businesses, creation of markets and trade opportunities, in addition to economic empowerment and access to fairly priced credit facilities for enhancement of their business ventures would boost their food security status. Implementation of the suggested food security programmes should be administered through multi-stakeholder institutions to comprise both public and civil society representatives to ensure proper implementation, monitoring and evaluation.

3.3 Food Preservation and Storage

Food storage and preservation is a key factor in determining household food security as it ensures availability of food for later use, reduced wastage and preparedness for catastrophes, emergencies and periods of scarcity as well as protection from animals or theft among others. Storage is an aspect of the post-harvest system through which food goes through on its way from the field to the consumer (USAID, 2011). Post harvest losses that usually occur before storage partly contribute to wastage of food and it is evident that most farmers in the region still use traditional methods of food preservation such as drying and ashes which may not be able to keep food fresh over a long period. These preservation and storage methods often lead to quick expiry of the diminutive food available and culminates with food insecurity. Moreover, absence of food preservatives especially for grains, compels farmers to hurriedly sell their produce at low prices immediately after harvesting to avoid wastage. This contributes to food insecurity because many people do not store food for future use.

Storage of cereals and other non-perishables at the household level has many advantages such as enabling farmers to easily

access their produce and facilitating sale when necessary; minimizing transportation and handling costs; in addition to acting as a source of information concerning the supply of food in the market which informs production decisions. From focus group discussions and key informant interviews, it was apparent that majority of respondents did not have food to store. This depicts lack of food surpluses at the household level which is a clear manifestation of food insecurity in most households in the region. In addition, it was also clear that majority of respondents did not have reliable preservation methods for non-perishable and cooked foods hence, use conventional methods of food storage which are not very reliable. It is evident that most people still use traditional methods of preserving food such as drying and ash, which may not be able to keep food fresh over a long period. Thus, often leads to quick expiry of the little food available thus culminating to food insecurity. It is noteworthy to mention that absence of food preservatives, especially for grains, would compel farmers to hurriedly sell their produce at low prices immediately after harvesting to avoid wastage which also contributes to food insecurity given that many farmers are unable to store food for future use. For that reason, food preservatives should be made affordable to encourage food storage. To ensure food security and avoid wastage, modern food preservatives should be made affordable and their use to preserve food encouraged to farmers.

3.4 Status of Food Security in Migori County

Food security was measured using the eight questions in the hunger module assessing the four dimensions of food security (i.e. availability, accessibility, utilization and

sustainability). Household heads were asked to rate the status of food security in their households based on the questions. Both the quantitative data collected from the HHHs and the qualitative data collected using the key informant guide, the institutional guide, the FGD guide and the debriefing meeting, shows Migori County is food insecure.

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO, 2010). Household food security, means applying this concept to individuals within the household. Conversely, food insecurity exists when people do not have adequate physical, social or economic access to food (FAO, 2010). Chronic hunger is also a sign of food insecurity, hence the hunger module was used to determine the status of food security at the household level in the twenty sampled counties. The table assesses the status of food security at the household level in the last ten months prior to the survey in June 2013. The eight questions in the hunger module assess the four dimensions of food security (i.e. availability, accessibility, utilization and sustainability). Household heads were hence asked to rate the status of food security in their households based on the questions.

a) Availability: E03. Did you or any household member eat a limited variety of foods due to lack of choices in the market?

Eating a limited variety of food implies that members of a household may have food but it is not diversified. This signifies food insecurity given that food utilization is a significant dimension of food security which is determined by the quantity and quality of dietary intake.

In the key informant interviews and focus group discussions, opinion leaders cited that most households ate limited variety of food due to insufficient income, high food prices and lack of food diversity in the markets. Lack of food diversity often leads to health challenges especially malnutrition and diet related diseases hence high percentage of households eating limited variety of food points to a high level of malnutrition.

b) E06. Did you or any other household member eat fewer meals in a day because there was not enough food?

Eating fewer meals is not synonymous with eating smaller meals. The former refers to missing some meals due to inadequate food to cater for all meals. Eating fewer meals therefore refers to missing some meals owing to inadequacy of food to cater for all meals. Skipping meals is a more serious manifestation of food insecurity and poverty than eating smaller meals since households that have little income can at least afford to eat smaller meals but they do not skip meals. Opinion leaders' in the integrated research stated that whenever there is not enough food, households skipped some meals to facilitate preparation of one meal that would be enough for all members of the household which is a more serious manifestation of food insecurity and poverty. Based on research findings, food insecurity adversely affects households in the low income category because they have to forego other important non-food expenditures, such as health care and education in order to buy food. The researchers learnt that middle income households spend a large proportion of their income on food and are at risk of falling into the poor category. The most

cited reasons for eating small meals were lack of adequate resources to buy enough food and inadequate food where some households rationed the little food they had to avoid starvation. Eating small meals is used as a coping mechanism for food security and shows that there is under utilization/under consumption of food which is an indicator of food insecurity.

c) E08. Did you or any household member go to sleep at night hungry because there was not enough food?

Going to sleep hungry is a situation in which members of a household do not have an evening meal due to limited availability of food or lack of access to it. The opinion leaders in the integrated research cited that households slept hungry because they did not have food surpluses since they produced very little food which is only enough for immediate consumption.

This implies that households that slept hungry have high frequencies of not having food at all in their households. The leaders stated that this situation is occasioned by low food availability as a result of poor food production due to output fluctuations influenced by a number of factors including erratic rainfall, poor quality seeds, high cost of inputs especially fertilizer, poor producer prices as well as pests and diseases.

d) Sustainability: E01. Did you worry that your household would not have enough food?

Worrying about not having food is a situation in which people lack food sustainability due to inconsistency of supply, access and utilization of food. The implications of both hunger and worry for households has an impact on

individual development, health of families and communities and therefore on the national development. The integrated research gave several factors as to why they worried about not having enough food, some of which included small parcels of land, erratic climatic conditions, crop failure, lack of income to buy food, shortage of food supply in markets, and fluctuations in food prices.

e) Accessibility: E04. Did you or any household member eat food that you preferred not to eat because of a lack of resources to obtain other types of food?

Eating food that one prefers not to eat due to lack of resources to obtain other types of food is a situation whereby financial constraints hinder access to a variety of foodstuffs which often leads to food insecurity.

f) E05. Did you or any other household member eat smaller meals in a day because of lack of resources to obtain enough?

Eating smaller meals refers to a situation whereby members of a household eat small quantities of food for breakfast lunch and dinner, but they do not skip any of them. Eating small meals was used as a coping mechanism for food security and shows that there is under utilization/under consumption of food, which is an indicator of food insecurity. The most cited reason for eating small meals was lack of adequate resources to buy enough food and inadequate food i.e. households rationing the little food they have to avoid starvation.

g) E07. Was there a time when there was no food at all in your household because there were not enough resources to go around?

Based on the hunger module, lack of food in the household is a high manifestation of food insecurity because it shows that there is serious starvation in those households. During the focus group discussions and key informant interviews in the integrated research, the opinion leaders said that some of the factors which contribute to food insecurity in the county include changing climatic conditions due to global warming and poor agricultural practices which have led to serious crop failure in the past few years resulting to lack of sufficient food; business activities in the county are not thriving owing to low purchasing power and lack of capital to expand the businesses; hence, traders do not get sufficient income to buy enough food; and that food security support services are limited, poorly targeted and administered although many residents are food insecure.

h) Utilization: E02. Were you or any household member not able to eat the kinds of foods you preferred because of lack of resources?

Eating food of one's preference is an important aspect of food security; however, some households ate foodstuffs they do not prefer to eat due to various reasons i.e. lack of sufficient income to buy food of their preference. Opinion leaders in the integrated research cited that they ate foods they did not prefer to eat due to reasons such as lack of sufficient income to buy food of their preference. A part from income, limited variety of food in markets and poor transport infrastructure also hindered many households from accessing food of their choice.

3.5 Consumption Patterns

Staple food crops are significant sources of both food security and earnings for most of the households in Kenya (USAID, 2010). Maize is the staple food crop in Kenya and has always been taken to be equivalent with household and nationwide food security. Maize in Kenya is essentially used in the form of maize flour to prepare maize meal (Ugali). In addition, dry maize grain is often mixed with other foodstuffs such as potatoes, beans and vegetables to prepare dishes like Mukimo, Githeri, Muthokoi, Nyoyo and others. The Kenya National Food and Nutrition Security Policy (FNSP 2011) states that in Kenya, food availability has over time been understood in terms of cereal supply and food security in terms of having enough maize.

Opinion leaders' views collected from key informant interviews and focus group discussions in the integrated research revealed that Ugali is the main staple food consumed by residents of Migori County and that it is consumed with foods such as fish; vegetables (specifically sukuma wiki, managu, sageti, terere, kunde, cabbage, etc.); meat; beans; groundnut sauce; green grams; etc. The leaders also stated that previously, most communities in the region believed that Ugali was the only food; hence, they never appreciated alternative varieties of foods which were considered as snacks. However, with the changing lifestyles and scarcity, residents have started appreciating other foods. Eating non-traditional foods and engaging in diverse economic activities should be encouraged because it will help in boosting food security by diversifying sources of food for the people and earning more income for the own producers in the communities.

3.6 Government/Church/Donor Support Programmes

Conditional Cash Transfers (CCT) is a government programme that provides cash to poor households and can be designed to promote a wide range of benefits which include immediate poverty alleviation; improved health, nutrition and education outcomes, economic productivity and growth, empowerment (particularly for women) and social cohesion. In Kenya, the government has been implementing cash transfer programmes targeting orphans and vulnerable children since 2004 in addition to implementing several social protection interventions. Although many Kenyans are food insecure, only a diminutive percentage of respondents affirmed that they receive cash transfer services from the government. This low percentage of cash transfers beneficiaries is attributed to the fact that most of the support programmes are still being piloted; hence, they only targeted few individuals. However, most of the participants during the focus group discussions complained that the few available support programmes are not properly administered; consequently, the deserving beneficiaries do not benefit much from them.

Information gathered from the research revealed that government programmes make the bulk of support mechanisms for attaining food security in the county (60%); 20 per cent come from non-governmental organizations support and another 20 per cent come from self help groups although the leaders complained that the support programmes in Migori County are limited, poorly targeted and administered, yet majority of the households are poor and food insecure. They cited lack of integrity among government officials (specifically the local administration) as being responsible for poor

identification and selection of the beneficiaries, implementation and administration of the programmes to the extent of embezzlement of support funds. It was dismal to learn that some of the participants were even uninformed of the existence of government cash transfer programmes.

In view of the aforesaid, Migori County opinion/community leaders suggested techniques of improving effective implementation and execution of government support programmes which included provision of up scaled agricultural inputs and implements (27.3%); capacity building and/or sensitization through community leaders (27.3%), transparency in the identification of beneficiaries, building of storage facilities, making programmes accessible to all, provision of financial support, and Ministry of Agriculture having enough extension services to farmers (each 9.1%), respectively.

In addition, the leaders also suggested improvement of social security programmes' management through proper regulation of social security and protection of provider institutions by ensuring the participation of all stakeholders and interest programmes; involving the locals in the design and identification of the programme beneficiaries, particularly in the case of targeted programmes; and accountability in the social protection sector which would increase if the formulation and delivery of social protection programmes were better coordinated.

Governing of social protection schemes by sector-wide minimum standards based on recognized accountability tools and development of accountability criteria based on proven regional and international experience and minimum standards of compliance agreed by all programmes need

to be strong or improved. There is need for regular monitoring and evaluation mechanisms for cash transfer programmes to determine the extent to which they alleviate poverty. The fact that safety net programmes have many aspects in common suggests a strong case for harmonizing the indicators used to monitor them, especially given the constrained budgets and limited capacity for designing and maintaining monitoring and

evaluation systems. There is also urgent need to develop comprehensive performance management systems for the sector's contributory schemes that include specific and measureable indicators for all key processes, risks and intended results associated with these schemes. A full performance assessment that compares each scheme's performance with ILO standards would also be highly desirable.

4

Policy and Programme Recommendations and Proposals on Food Security

This chapter presents Migori County participants' recommendations and AWSC policy and programmatic proposals for ensuring food security at both the County and national levels.

4.1 Recommendations

This section presents some of the key recommendations for ensuring food security in Migori County as given by the study participants. They are derived from both the baseline survey's quantitative data from the household questionnaires, qualitative data from the FGDs, institutional representatives, testimonials and, participants who attended the debriefing meeting on food security held with stakeholders from Migori County. The recommendations include the following:

4.1.1 Improve Road Network to Help Access Food Markets and also Sale of Farm Produce

The county's infrastructure needs urgent improvement to enhance movement of goods from different parts of Migori and increase access to markets which would lead to decrease exploitation by middlemen;

4.1.2 Provision of Irrigation Water and Water Harvesting

Demystify benefits of irrigation schemes and in a participatory manner, involve citizenry in the initiation of development projects in the county especially in dry sub-counties such as Nyatike to increase agricultural output.

4.1.3 Land Reform for Equitable Land Distribution

Regulate land use to enhance food crop production as this would be of benefit in cash crop, fishing, mining and rangeland areas.

4.1.4 Access to Affordable and Subsidized Farm Inputs e.g. Seeds and Fertilizers

Provide farmers with farm inputs such as certified quality improved seeds, subsidized fertilizers and pesticides to enhance soil fertility and improve crop yields in order to improve the county's food security and in addition, to repackage the subsidized fertilizers in smaller packages for affordability by small scale farmers.

4.1.5 Value addition of Agricultural Produce

Establishment of small scale food processing plants and non-traditional crop production units to transform agricultural commodities especially sweet potatoes and cassava to a more valuable state so as to increase their economic value and consumer appeal.

4.1.6 Provision of Adequate and Ready Markets for Agricultural Produce

Provide adequate and ready markets for agricultural produce to increase their income and protect vulnerable farmers from unscrupulous middle men who often exploit them by purchasing their produce at very low prices.

4.1.7 Provision of Agricultural Training to Farmers

Employ agricultural extension officers to train and ensure farmers easily access information on modern and innovative farming methods and also enable them adopt modern agricultural technologies such as drip irrigation, kitchen gardens and green houses for those that can afford;

4.1.8 Economic Empowerment of Youth and Women

Provide capacity building for women and youth groups on proper financial management prior to providing beneficiaries with loans to ensure they are economically empowered as this will reduce incidences of loan defaulting. Revive co-operative societies and involve women in leadership to ensure they engage in control of resources and participation by all genders in county development matters. Officers at district level to provide women with information on Women Enterprise Fund and build their capacity to develop their perceptions, fear, knowledge to enable them access funding e.g. loans under the programme.

4.1.9 Change of Attitude and Eating Habits

Encourage communities in the region to demystify culture/tradition and diversify growing of more varieties of food crops to include drought resistant crops such sorghum, sweet potatoes, and cassava.

4.1.10 Cash Transfers

Improve financial support for vulnerable members of community: the elderly, OVCs and persons with disabilities, to guarantee that support gets to the correct beneficiaries by involving community in prioritization and management of cash transfers to ensure transparency.

4.1.11 Employment Creation

Enable and economically empower youth by creating employment at county levels for idle youth, facilitating them to engage in joint ventures and/or small scale businesses and/or initiating projects that can interest/involve them in agriculture such as fish farming, green houses, etc.

4.2 Key Policy and Programme Proposals

This section highlights key proposals by AWSC based on recommendations by participants from Migori County and literature review on best practices from countries that have implemented programmes and legal frameworks for enhancing food security. The research findings, from Migori County, illustrate that an average 34.0 per cent are either often or always hungry and require strategic interventions to ensure they are food secure. Food insecurity, has been shown to have negative implications, especially for children, and development of their potential; therefore, implementation of the Constitution article 43(1)(c), that guarantees every person the “right to be free from hunger, and to have adequate food of acceptable quality”, must be a development priority for Kenyans.

The research findings also show that 35.4 per cent produce their own food while the small scale traders are 24.5 per cent and casual laborers are 23.3 per cent. There is need to strategically target these areas in programmatic and policy intervention aimed at enhancing food security in Migori County. Based on the study findings, AWSC has identified, the following programmes and policy proposals, for addressing the food security challenges in Migori County:

4.2.1 Support Programmes for Hungry Households that Depend on Own Production

The national and county governments should establish a programme to support those severely affected by hunger. Following the example of India and Brazil, the national and county governments can directly focus on the households and ensure that they have access to food through either increased production (35 per cent who produce their own food), creation of employment for casual laborers (24%) and opportunities for markets and trade (25 per cent who engage in trade and small business). As in the case of India, in order to ensure efficient, transparent and targeting of the food poor households we recommend that a clear legal framework to ensure implementation of support programme for the hungry that will address this category of Migori people from this dehumanizing situation and address article 43 (1)(c) by targeting own producers.

- a) **Targeting own producers (35%):** The national government and county government should target each of the 35 per cent households who, according to research, produce their own food to ensure increased food production. The family support programme could ensure that the 35 per cent households have farm inputs, information and markets for their produce.
- b) **Rain water harvesting:** Subsidized roofing materials (Mabati) for housing and water tanks to facilitate water harvesting.
- c) **Capacity building on agriculture:** Capacity building on better farming methods as well as utilization of the extension services to improve food security. This entails having agricultural extension officers who will train farmers to increase agricultural production

through the use modern farming techniques and latest information such as use of improved seed varieties, pesticides, green houses, fertilizers, irrigation, crop diversification, use of machinery and artificial insemination.

- d) **Value addition and markets:** From the research, 66.7 per cent of the respondents said they store food (non-perishable) while 31.2 per cent store perishable food. Poor storage, in addition of lack of markets, was a common problem almost faced by all who were interviewed.
- e) **County storage and strategic food reserves:** Due to wastages and losses incurred as a result of attack of produce by diseases and pests, poor weather, destruction by wild animals and lack of adequate storage facilities during surplus production, it has resulted in massive food insecurity reported during the survey.

4.2.2 One Job for Every Poor Household

The Government should develop a policy that allows the County and National Governments to identify the hungry households and create employment for at least one person in every poor household for 200 days a year. This will cater for 25 per cent of the respondents from Migori who said they are engaged in casual labor. The ultimate objective of this project is to create employment for at least 200 days for one person in a poor family per year for households with no one with wage employment. The beneficiaries will be engaged in green jobs which include: water conservation and water harvesting; drought-proofing (including forestation and tree plantation to increase forest cover to 10%); irrigation canals, including micro and minor irrigation works; provision of irrigation facility, horticulture plantation and land

development facilities. Also, roads construction and maintenance of Government buildings and other structures.

4.2.3 Water for Irrigation and Domestic Use

Purchasing materials to ensure rain water harvesting in Schools, Health Centers, Urban centers and equipment/materials for water harvesting such as tanks, pipes, water pumps, borehole drilling machinery and gutters.

4.2.4 Economic Empowerment of Youth and Women

The government's effort to provide employment especially for the youth and women are indeed commendable. The various initiatives like the Women Enterprise Fund, Youth Enterprise Fund and Uwezo Fund will contribute and make it possible for many youth and women to engage in gainful employment. Still, a lot needs to be done. Majority of youth remain unemployed and some even convert to social ills as a means of livelihood. Our research findings showed that 23.9 per cent of the respondents from our study in Migori were youth between the age of 15–34 years and increasing the funds will make it possible for them to engage in meaningful employment.

4.2.5 Developed and Improved Infrastructure

Improvement of the county's very poor infrastructure needs to be done by rehabilitating existing road network especially in the county's interior to make them passable during rainy seasons for movement of goods and people and hence reduce food prices.

4.2.6 Provision of Adequate/Ready Markets and Value Addition for Agricultural Produce

The county government should invest in the establishment of small scale organic food processing plants and non-traditional crop production units that can be run by county residents to transform agricultural commodities to other products to increase incomes earned from the produce.

4.2.7 Enforcement Mechanism for Ensuring Food Security

AWSC proposes that a legislative framework be developed that will enforce food security programmes aimed at implementation of Article 43 (1)(c) of the constitution. In this framework, it is proposed that a food security authority be established and the governors take responsibility at the county level. This is in line with best practices in other countries such as Columbia, Mauritius, South Africa and India.

4.3 Conclusion

To determine the food security in Migori County, the study covered the County extensively. As brought out in the study, food insecurity is indeed a serious issue in Migori County with more than a third (34%) of the residents experiencing chronic food insecurity. The statistics show clearly that immediate intervention to ensure food security in the county need to be done. The participants were very specific in their articulation on what intervention measures be taken to ensure the residents are food secure.

Under Schedule Four of the Kenya Constitution 2010, the County government is given the responsibility of feeding its people by adopting agriculture as one of its functions. The residents of the county were therefore very specific in their articulation on

what needs to be done to maximize their capacity to make sure that the county becomes food secure. Consequently, it is important that the county government adopts participatory approaches in identifying the appropriate interventions including carrying out an impact assessment on existing trends so as to close any gaps in developing a food secure society. Otherwise, the idea of a food secure county will remain a mirage for residents from Migori County.

Adoption and implementation of the proposed interventions will ensure that every resident of Migori County is food secure which will go a long way towards the realization of the MDG 1, Kenya development blue print, Vision 2030 and above all, Constitution of Kenya, Article 43 (1)(c) that guarantees every person the “right to be free from hunger, and to have adequate food of acceptable quality.

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