



Food and Agriculture Organization
of the United Nations



Bridging the gap between nutrition and agriculture in Malawi

An assessment of capacity within agricultural
extension and advisory services



Bridging the gap between nutrition and agriculture in Malawi

An assessment of capacity within
agricultural extension and advisory services

Required citation:

FAO and GFRAS. 2022. *Bridging the gap between nutrition and agriculture in Malawi – An assessment of capacity within agricultural extension and advisory services*. Rome, FAO. <https://doi.org/10.4060/cb8714en>

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

ISBN 978-92-5-135798-9

© FAO, 2022



Some rights reserved. This work is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo/legalcode>).

Under the terms of this licence, this work may be copied, redistributed and adapted for non-commercial purposes, provided that the work is appropriately cited. In any use of this work, there should be no suggestion that FAO endorses any specific organization, products or services. The use of the FAO logo is not permitted. If the work is adapted, then it must be licensed under the same or equivalent Creative Commons licence. If a translation of this work is created, it must include the following disclaimer along with the required citation: "This translation was not created by the Food and Agriculture Organization of the United Nations (FAO). FAO is not responsible for the content or accuracy of this translation. The original [Language] edition shall be the authoritative edition."

Disputes arising under the licence that cannot be settled amicably will be resolved by mediation and arbitration as described in Article 8 of the licence except as otherwise provided herein. The applicable mediation rules will be the mediation rules of the World Intellectual Property Organization <http://www.wipo.int/amc/en/mediation/rules> and any arbitration will be conducted in accordance with the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL).

Third-party materials. Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

Sales, rights and licensing. FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through publications-sales@fao.org. Requests for commercial use should be submitted via: www.fao.org/contact-us/licence-request. Queries regarding rights and licensing should be submitted to: copyright@fao.org.

Cover photograph: ©FAO/Amos Gumulira

CONTENTS

ACKNOWLEDGEMENTS	v
ABBREVIATIONS AND ACRONYMS	vi
EXECUTIVE SUMMARY	vii
1 Introduction	1
2 Methodology	5
2.1 Context mapping	5
2.2 Stakeholder mapping	5
2.3 Detailed organizational-level capacity assessment	6
2.4 Detailed individual-level capacity assessment	6
2.5 Synthesis of results	7
2.6 Validation workshop	7
2.7 Development of the final report	9
3 Capacity needs assessment	10
3.1 Enabling-environment level	10
3.1.1 Country nutrition context	10
3.1.2 Policy context influencing nutrition outcomes	12
3.1.3 Stakeholder mapping	13
3.2 Organizational level	28
3.2.1 Organizations selected for detailed organizational assessment	28
3.2.2 Mandates of selected organizations	30
3.2.3 Specific programmes implemented on nutrition	30
3.2.4 Investments to address nutrition	34
3.2.5 Human resources deployed to address nutrition	34
3.2.6 Organizational challenges in addressing nutrition	36
3.2.7 Partnerships	36
3.3 Individual level	41
3.3.1 Technical and functional capacities	41
4 Conclusions	46
REFERENCES	48
ANNEXES	50
Annex 1. Comments on the methodology and suggestions for improvement	50
Annex 2. Stakeholder mapping questionnaire	50
Annex 3. Organizational-level capacity assessment interview guide	52
Annex 4. Focus group discussions interview guide	56
Annex 5. Individual-level capacity assessment interview guide	57

TABLES

1	Number of FGD participants in the coordinating structures	7
2	Number of participants in the FGDs by organization	9
3	Stakeholders involved in nutrition (performing key EAS roles) in Malawi	14
4	Organizations selected for detailed organizational-level capacity assessment	28
5	Specific programmes on nutrition	30
6	Key issues related to financing nutrition	32
7	Human resources deployed in nutritional programmes	33
8	Frequency of use of information, communication and educational materials	36
9	Nature of collaboration for implementing nutrition	37
10	Capacities (technical knowledge on nutrition) to address nutrition among staff at different levels	40
11	Capacities that enable staff to plan, implement and monitor programmes to achieve nutrition impact	43

FIGURES

1	Nutrition structures and DAESS according to local government structures	3
2	Administrative Map of Malawi, showing Districts	8
3	Organization type	24
4	Geographical focus	25
5	Percentage of nutrition-related roles performed by organizations	25
6	Types of clients	26
7	Delivery channels used	27

BOX

1	Extension and advisory services	2
----------	---------------------------------	---

ACKNOWLEDGEMENTS

This report was jointly prepared by the African Forum for Agricultural Advisory Services (AFAAS) and the Malawi Forum for Agricultural Advisory Services (MaFAAS) as a contribution to [*Global capacity needs assessment methodology – Integrating nutrition objectives into agricultural extension and advisory services programmes and policies*](#), published by the Food and Agriculture Organization of the United Nations (FAO) and the Global Forum for Rural Advisory Services (GFRAS). We thank Catherine Mthinda for leading this study and Max Oluput for his support.

We sincerely thank Strengthening Agricultural and Nutrition Extension (SANE) for technical support, especially during the initial stages of this study and during the context and stakeholder mapping processes. Specifically, we would like to acknowledge Stacia Nordin's high level of personal commitment in ensuring the study was conducted smoothly and properly.

We are grateful to the key informants who made time for our interviews amid their busy schedules. Your thoughts helped make this study complete. Many thanks are due to the leadership of the district agricultural extension and nutrition coordinating structures of Balaka, Dedza, Lilongwe, Mchinji and Salima, who provided the logistics and participated in the interviews. We also acknowledge the active participation of the members of these coordinating structures during a busy period of the agricultural season. We salute the already busy farmers' representatives and field staff in the area-level coordinating structures who made time to respond to our many questions. Their voices have enriched this study.

In addition, we appreciate and recognize the work done by students of Lilongwe University of Agriculture and Natural Resources (LUANAR) in assisting the team with field data collection, transcribing and typing notes.

Lastly, acknowledgements are extended to Joëlle Zeitouny and Ruobin Wu for technical inputs, Andrew Morris for editing, Valentina Gaffi for layout, and Bianca Carlesi and Chiara Deligia for communication support.

ABBREVIATIONS AND ACRONYMS

ADC	area development committee
AFAAS	African Forum for Agricultural Advisory Services
ANCC	Area Nutrition Coordinating Committee
ASP	area stakeholder Panel
DAECC	District Agricultural Extension Coordinating Committee
DAES	Department of Agricultural Extension Services
DAESS	District Agricultural Extension Services System
DARS	Department of Agricultural Research Services
DNCC	District Nutrition Coordinating Committee
DNHA	Department of Nutrition, HIV and AIDS
EAS	extension and advisory services
FGD	focus group discussion
GFRAS	Global Forum for Rural Advisory Services
GoM	Government of Malawi
IFFNT	Innovative Fish Farmers Network Trust
LUANAR	Lilongwe University of Agriculture and Natural Resources
MaFAAS	Malawi Forum for Agricultural Advisory Services
MAIWD	Ministry of Agriculture, Irrigation and Water Development
NGO	non-governmental organisation
NNCC	National Nutrition Coordinating Committee
NSA	nutrition-sensitive agriculture
SANE	Strengthening Agricultural and Nutrition Extension
WASH	water, sanitation and hygiene

Introduction

The aim of this study was to pilot test a global capacity needs assessment (GCNA) methodology for the integration of nutrition in agricultural extension and advisory services (EAS). Specifically, the objective was to understand EAS capacity gaps, needs and obstacles to effectively integrate nutrition-related objectives into agricultural programmes and policies.

Methodology

We conducted the capacity needs assessment using:

- a document review;
- 12 key informant interviews and 17 focus group discussions (FGD) using separate interview guides;
- an online survey completed by 38 organizations using a structured questionnaire; and
- individual interviews with 56 staff members using a structured self-capacity assessment questionnaire.

The FGDs and individual interviews were conducted in five districts, namely Balaka, Dedza, Lilongwe, Mchinji and Salima, using the agricultural extension and nutrition coordination structures. We used content analysis for data from key informant interviews and FGDs, and Excel for data from the structured questionnaires to obtain frequencies and mean scores. The last step will be to validate the results of the study with stakeholders at a validation workshop. The feedback from this workshop will be used to finalize the report.

Summary of findings

Context mapping

The main challenges in nutrition in Malawi concern undernutrition in children and women to a large extent, and overweight to a lesser extent. Stunting is the major problem; its prevalence decreases as the mother's education level increases and as we move up the wealth groups. Other challenges include underweight and micronutrient deficiencies concerning iron, vitamin A and zinc. Food insecurity coupled with many other factors embedded in different sectors contribute to this situation. Nutrition-related policies exist at the national and institutional levels. A number of stakeholders are involved in addressing the nutrition challenges, implementing a diverse range of activities and targeting diverse groups. The organizations' geographical mandate ranges from one or more Traditional Authorities to one or more districts and national levels

Stakeholder mapping

Different types of organizations implement nutrition activities targeting diverse groups. The geographical focus ranges from one or more Traditional Authorities to district and national levels. These stakeholders are unevenly distributed, with some districts only served by a few, indicating a need for greater coordination.

Organizational level

Nutrition is not spelled out in the mandates of most organizations, but nutrition is one of their core activities and appears in their strategic plans. The organizations perform diverse roles in nutrition, the most common of which include agricultural diversification, food processing and preservation, and nutrition education. Investment figures are hard to access in programme activities. It is easier for projects to provide them. However, funds for implementing the diverse nutrition activities are limited and unstable, affecting staffing levels and mobility, which limits the organizations' ability to effectively reach the target groups. Each organization works in partnership with others for various reasons. Partnership challenges include limited financial resources, competition for resources and visibility, dependence on projects, competing interests and redundancy. There is a need to strengthen these partnerships.

EXECUTIVE SUMMARY

Individual level

The study has revealed that most participants have sound technical knowledge in nutrition-sensitive agriculture (NSA), except in a few areas where more training is necessary. Their soft skills are much better than their technical knowledge, likely because most are experienced extension workers.

RECOMMENDATIONS

Addressing capacity gaps and ways forward

- Advocate for stable funding to ensure proper staffing levels.
- Continue the stakeholder mapping exercise.
- Address redundancy and competition between services.
- Strengthen partnerships and coordination.
- Strengthen staff capacity in NSA as a concept and in specific areas of NSA, such as: promotion of indigenous biodiversity, responsible agrochemical use; promotion of alternative activities and practices based on biological limitations and gender-related tasks; livestock management; clean water; sanitation and hygiene; analysing market opportunities for nutrition-sensitive value chains; and estimation of capital required and return on investment in nutrition-sensitive value chains (market orientation).

Assessment methodology and suggestions for improvement

- Collect demographic data in the assessment tools.
- Continue with assessment of staff capacities at the different levels: field, middle and senior.
- Simplify some of the questions in the self-assessment capacity tool.
- Ensure questions are asked in self-assessment mode.
- Ensure local key nutrition messages are included and asked in self-assessment mode.
- Ensure representativeness in the selection of districts and organizations for capacity assessment.

1 INTRODUCTION

Agriculture and food systems have a very central role in improving nutrition and sustainable development. In Malawi, agriculture is the mainstay of the economy and the livelihoods of most Malawians therefore depend on it. According to the Government of Malawi (GoM), agriculture accounts for 28 percent of gross domestic product (GDP) and contributes to over 80 percent of the country's national export earnings (GoM, 2017). About 65 percent of total employment contributes to the sector and it is critical for the nation's food security. Although there is remarkable progress, the agriculture sector operates below its capacity (JICA, 2019). The country is also vulnerable to external shocks, particularly climatic shocks, among other challenges. It therefore continuously faces food shortages at national as well as household levels.

Poverty in Malawi, especially in rural areas, is mainly driven by food insecurity (Rasmussen, 2018). In 2015–16, about 74 percent of households reported that they were poor, while 24 percent reported that they were extremely poor (NSO and ICF International, 2016). Poverty levels were higher in rural areas, where 41 percent of households perceived themselves as very poor, compared to 15 percent for their urban counterparts. Over the past two decades, progress in reducing poverty has been insignificant and, overall, the poverty situation is worsening. A more productive agriculture sector is therefore needed to harvest sufficient food to keep up with demand, generate income and improve nutrition.

The majority of Malawi's population resides in the rural areas, as smallholder farmers. To achieve food and nutrition security, there is a need to promote nutrition-sensitive agriculture (NSA) and advisory services in the rural areas (Nandi and Gowdru, 2018). NSA is a food-based approach to agricultural development that puts the focus on nutritionally rich foods, dietary diversity and food fortification to overcome malnutrition and micronutrient deficiencies (FAO, 2015a). The NSA approach focuses on the multiple benefits derived from enjoying a variety of foods, while understanding the nutritional value of food and the importance and social significance of the food and agricultural sector in supporting rural livelihoods. The main objective of NSA is to make the global food system better equipped to produce good nutritional outcomes. To promote NSA, it is essential to equip agricultural extension and advisory services (EAS) with nutrition knowledge, competencies and skills. Evidence suggests that EAS (Box 1) is the most appropriate channel, especially for Malawi, because the agricultural EAS staff work directly with farmers in their rural setting and have national coverage (Masangano and Mthinda, 2012; Ragasa and Niu, 2017). This means strengthening the capacities of different categories of professionals as part of a holistic capacity development strategy, based on a better understanding of needs, challenges and interactions of the professionals.

This pilot capacity needs assessment was designed to contribute to the development of a methodology for a global capacity needs assessment (GCNA) of extension and advisory services by the Global Forum for Rural Advisory Services (GFRAS), with support from FAO. The aim of the GCNA is to understand capacity gaps, needs and obstacles to integrating nutrition-related objectives into agricultural programmes and policies, taking into account the national or regional institutional context. With FAO support, GFRAS drafted the GCNA methodology to assess capacity needs at country level, and which could subsequently be applied globally. Each regional/sub-regional network of GFRAS was then asked to select one or two countries from their region for pilot testing of the GCNA methodology. The AFAAS network selected Malawi because nutrition is given priority on the national agenda, FAO actively supports the government in nutrition and agriculture issues, various stakeholders support the government in addressing nutrition and agriculture issues, and there is an active forum for agriculture and advisory services in Malawi. The rationale for selecting Malawi is explained in detail below.

BOX 1 EXTENSION AND ADVISORY SERVICES

This report uses the definition of extension or rural advisory services articulated by the Global Forum for Rural Advisory Services (GFRAS) “as consisting of all the different activities that provide the information and services needed and demanded by farmers and other actors in rural settings to assist them in developing their own technical, organizational, and management skills and practices so as to improve their livelihoods and well-being.” It recognizes the diversity of actors in extension and advisory provision, much broadened support to rural communities (beyond information and knowledge) and embracing new functions such as facilitation, intermediation and brokering by extension and advisory services.

SOURCE: GFRAS. 2012. The “New Extensionist”. Roles, Strategies, and Capacities to Strengthen Extension and Advisory Services, Global Forum for Rural Advisory Services. www.g-fras.org/en/knowledge/gfras-publications.html?download=126:the-new-extensionist-position-paper

NATIONAL PRIORITY

The Government of Malawi has placed nutrition high on the national development agenda. One major outcome of the first key priority area (agriculture) out of the five priority areas specified in the third Malawi growth and development strategy (2017–2022) is improved nutrition and food security (GoM, 2017). Some of the strategies for achieving this outcome include promotion of bio-fortification and fortification of major staple foods, as well as food and nutrition for all. Malawi approved the first edition of its national nutrition policy in 2007, which guided the implementation of a multisectoral nutrition response. Since then, the government has continued to renew its commitment by reviewing the policy, the latest version of which is the *National Multi-Sector Nutrition Policy 2018–2022*; This redirects the national focus on nutrition programming and realigns national nutrition priorities with the national development agenda (GoM, 2018a). The new policy covers both nutrition-specific and nutrition-sensitive interventions. While emphasizing undernutrition, the policy also recognizes the growing problem of overnutrition. Priority area no. 5 out of the eight priority areas in the national agricultural policy is on food and nutrition security (GoM, 2016).

AVAILABILITY OF THE VARIOUS STAKEHOLDERS INVOLVED IN ADDRESSING NUTRITION

Due to the multifaceted nature of the nutrition problem, the government established the Department of Nutrition, HIV and AIDS (DNHA) in 2004 to provide oversight and coordination of the national nutrition response. The country has more than 150 public, private and non-governmental institutions and development partners working on nutrition-related tasks. They come from different sectors such as agriculture, health, education, local government and gender, among others. Among these 150 institutions, about 40 work in the agricultural sector. To facilitate implementation and coordination, the department established the National Nutrition Coordinating Committee (NNCC) and a technical working group at national level. In addition, Malawi has a Nutrition Society of about 270 nutritionists and the civil society organization Nutrition Alliance (CSONA), which would be interested in the capacity needs assessment (SANE, 2019). See Figure 1 for the coordinating structure.

AVAILABILITY OF COUNTRY FORUM

MaFAAS is one of the most active country fora under AFAAS on the African continent. Although it was registered as a trust in 2017, it has been active since 2012. Its annual meetings attract more than 400 participants dealing with agriculture and nutrition programmes at both individual and institutional levels. It has conducted several extension weeks, farmers’ conferences and thematic team meetings.

AVAILABILITY OF COORDINATING STRUCTURES FOR AGRICULTURAL EXTENSION AND NUTRITION

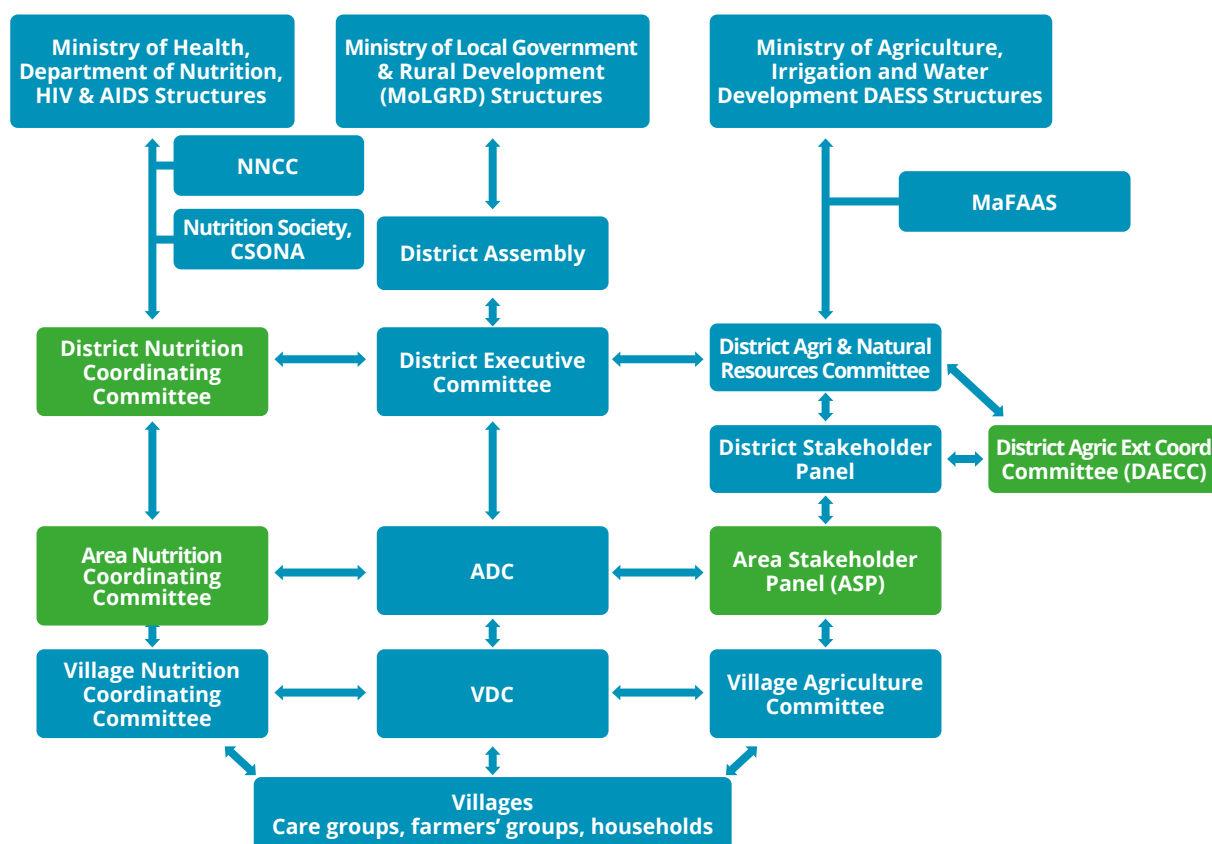
Agricultural extension in Malawi is coordinated through the District Agricultural Extension Services System (DAESS) in line with decentralization and local government decentralized structures (GoM, 2006). The structure is aligned to the Ministry of Local Government and

Rural Development, and supported by the Ministry of Agriculture, Irrigation and Water Development – more precisely, the Department of Agricultural Extension Services (DAES). The local government structure is headed by the district assembly, then runs down from the area development committee (ADC) to the village development committee (VDC) (Figure 1, centre). The purpose of this structure is to facilitate participation and local development planning in the district (Chiweza, 2010). The ADC covers one traditional authority composed of several groups of villages. Each group of villages has a VDC with a number of villages under it.

The district assembly is supported by a team of technical experts in the district executive committee and area executive committee at the traditional authority level. These experts represent different sectors (including agriculture) from both government and non-government organizations. The district assembly has the mandate to establish different service committees as necessary, two of which are the District Nutrition Coordinating Committee (DNCC), looking at nutrition issues, and the District Agriculture and Natural Resources Committee that oversees all agricultural issues, including agricultural extension services. As the methodology section explains, the structures involved in this study are those highlighted in Figure 1.

The DAESS structures (Figure 1, right) start from the district agriculture committee (DAC) down to the village agriculture committee. DAESS has two main structures: the District Agricultural Extension Coordinating Committee (DAECC) and the Stakeholder Panels. The DAECC is comprised of the heads of agricultural technical departments and other agricultural extension service providers in the private sector, such as NGOs and farmer organizations. Its major role is to coordinate extension service delivery in the district assembly and ensure that the quality and standards of the extension service are upheld to effectively respond to farmers' demands. Meanwhile, the Stakeholder Panels are platforms for service providers and farmers to plan and

FIGURE 1 NUTRITION STRUCTURES AND DAESS ACCORDING TO LOCAL GOVERNMENT STRUCTURES



SOURCE: Authors' own elaboration.



coordinate their activities (GoM, 2006). They provide a forum for dialogue where farmers can request services directly from both private and public service providers, while maintaining the quality and standards of the extension service.

These two DAESS structures are tools for integrating the agricultural extension system into the district assembly and are supported by DAES staff members at their respective levels. The nutrition coordinating structure, like the DAESS structure, starts with the DNCC down to the village nutrition coordinating committee, parallel to the local government structure (Figure 1, left). In the DAESS structures, farmers are represented in the stakeholder panels at all levels, while in the nutrition structures, farmers are represented at area levels only.

FAO PRIORITY

In addition to the above, FAO Malawi actively supports the government in building capacities for resilience and sustainable food and nutrition security (FAO, 2015b). Partnership between Malawi and FAO dates back to 1986, when the FAO established its country representation. FAO supports the government in food security and agriculture-related policies and programmes to ensure food security and good nutrition for all. It also supports emergency and rehabilitation operations, as well as mainstreaming cross-cutting issues such as HIV and AIDS, climate change and gender. FAO has a wide range of field programmes but emphasis is on technical advisory services and capacity building. This commitment emanates from the fact that undernutrition is a major public health and development challenge in Malawi.

2 METHODOLOGY

The GFRAS/FAO GCNA methodology comprises seven steps (GFRAS, 2019).

1. Context mapping. The first step in the GCNA process is to assess the national and country level nutrition context. This is a literature review aimed at providing background information on the nature of the problem at the national level, along with the policies and programmes within the food, agriculture and nutrition sectors being implemented to address this. There are two parts to the review: i) to comprehend the context of nutrition or the problem at hand with respect to nutrition, and ii) to understand how the issue of nutrition is articulated in the policy space.
2. Stakeholder mapping. The second step is a scoping exercise involving a review of literature and key informant interviews to establish a picture of who is doing what in the field of nutrition and the different roles they perform. The aim is to identify organizations and key informants to help us understand the organizations and individual capacity gaps.
3. Organizational capacity assessment. The third step is to shortlist the organizations in the stakeholder mapping that are most relevant for organizational capacity assessment. Preference is given to organizations involved in EAS and undertaking nutritional interventions and those outside EAS but with potential for collaboration to promote NSA. Specific areas to be explored during the assessment are: organizational mandate with respect to nutrition, programmes addressing nutrition, financial investments for addressing nutrition, human resources deployed in nutritional interventions, constraints in programme delivery, and building effective partnerships.
4. Individual capacity assessment. The fourth step aims to understand the capacities for addressing nutrition or promoting NSA in EAS and other stakeholders who can support this activity. The proposed method is key informant interviews or focus group discussions (FGDs) to analyse capacities at different levels and provide a more accurate basis for designing capacity development programmes in EAS to address nutrition.
5. Synthesis of results. The fifth step is to summarize, analyse and comment on the data collected from all the previous steps. This information is then to be presented to the stakeholders for validation.
6. Validation workshop. The sixth step aims to validate the pilot capacity assessment results for the stakeholders to allow for their input and any additional insights relevant to the assessment.
7. Development of the final report. This step takes into consideration the stakeholders' input and provides suggestions on improving the assessment methodology. We will briefly discuss how our pilot study handled each of the seven steps.

2.1 Context mapping

The first step in the GCNA process was to assess the national and country level nutrition context. Various documents describing the state of nutrition were reviewed, including several government reports and development partner documents on nutrition. Other documents were survey reports, several food and nutrition strategies, and response plans. Similarly, several policy documents related to nutrition were reviewed, including the national nutrition policy as well as its strategy, national agricultural policy and other related agricultural strategies, national health policy, youth policy, gender policy and many others. In addition to the desk study, key informants from MaFAAS, MAIWD and SANE were consulted to provide the initial contacts and key documents on which to focus

2.2 Stakeholder mapping

The second step aimed at understanding the role of different stakeholders directly and indirectly engaged in addressing nutrition, the type of clients they serve, their mandate and their delivery channels. The literature review and key informant interviews above showed that a list of stakeholders involved in nutrition in one way or the other was not available. What we found was a database of nutritionists in Malawi and their organizations, which was inadequate for achieving the objective of this step, as guided by the GCNA methodology.

An online survey (using Survey Monkey) was therefore conducted, based on a structured questionnaire with six questions (Annex 2) following the GCNA methodology guidelines as follows:

- Name and address of your organization.
- What is the type of your organization?
- What are the key nutrition-related roles performed by your organization?
- What is the geographical focus of your organization (mandate)?
- What type of clients (target groups) do you serve?
- What are the delivery channels, i.e. the mechanisms used to reach the target groups with each of the key nutrition-related roles mentioned above?

Key informant interviews from the context mapping also provided information on the structures used for coordinating nutrition and agricultural EAS from the national level down to grassroots levels. We used the national structures as useful links to the online survey, which was completed by 38 organizations.

2.3 Detailed organizational-level capacity assessment

We selected 26 organizations from the 38 surveyed, including other important organizations identified through the key informants based on the type of organization, its location as well as its main nutrition-related roles. Our aim was to establish a cross-section of the stakeholders involved, both key stakeholders as well as those involved indirectly. However, only eight organizations were available for a detailed assessment, which was done through key informant interviews using an interview guide (Annex 3). A total of ten key informants were involved instead of eight, because there were two informants from the Ministry of Agriculture – one representing the Department of Agricultural Extension and the other the Department of Agricultural Research; and two from the Lilongwe University of Agriculture and Natural Resources – one representing Bunda College (BC), which trains graduates, and the other from Natural Resources College (NRC), which trains technicians and includes agricultural extension and nutrition. On average, the interviews lasted an hour, focusing on the following areas: organizational mandate, programmes addressing nutrition, financial investments on nutritional programmes, human resources capacity, operational capacity and partnerships.

2.4 Detailed individual-level capacity assessment

We also conducted a detailed individual-level capacity assessment for staff involved in the dissemination of nutrition messages using focus group discussions and individual-level knowledge assessment.

This focused on three areas:

- a. capacities regarding technical knowledge on nutrition among staff at different levels;
- b. capacities that enable staff to plan, implement and monitor programmes to achieve nutrition impact; and
- c. other capacities that need strengthening/development.

First, we conducted 17 FGDs using a separate interview guide, involving coordinating structures for nutrition and agricultural extension in five districts, namely, Balaka, Dedza, Mchinji, Lilongwe and Salima (Table 1 and Figure 2). These districts were selected mainly because of a heavy presence of stakeholders involved in nutrition, as shown by the stakeholder mapping exercise, recommendation from key informants during the context mapping phase, and proximity to comply with the available resources. The heavy presence of stakeholders meant that we were easily able to find participants for the individual capacity assessment. The FGDs involved 115 participants from four DAECs, four DNCCs, five ASPs and four area nutrition coordinating committees (ANCCs). Few women (only 37) participated, especially in the district structures, mainly because EAS are dominated by men in Malawi. There were more women in the area-level structures due to the involvement of farmers in these committees.

As shown in Table 2, the participants represented different types of organizations involved in nutrition from the five districts. In addition, a considerable number of these participants came from the five district assemblies representing different government departments with agriculture in the majority, and from the area-level structures as farmers' representatives. Furthermore, the table shows that the FGDs captured a cross-section of the organizations involved in disseminating nutrition messages at

TABLE 1 INSTITUTIONS AND ORGANIZATIONS INVOLVED IN EAS AND NUTRITION

	District/area structure	FGD participants		Total
		Men	Women	
1.	Balaka DNCC	6	0	6
2.	Balaka DAECC	9	1	10
3.	Balaka ANCC	3	1	4
4.	Balaka ASP	1	2	3
5.	Mchinji DNCC	3	2	5
6.	Mchinji ANCC/ASP	8	7	15
7.	Mchinji DAECC	6	2	8
8.	Dedza DNCC	3	2	5
9.	Dedza ANCC	2	1	3
10.	Dedza DAECC	5	0	5
11.	Dedza ASP	3	3	6
12.	Salima ASP	3	0	3
13.	Salima DAECC	7	2	9
14.	Lilongwe DNCC	8	4	12
15.	Lilongwe ASP	9	5	14
16.	Lilongwe ANCC	2	5	7
	Total	78	37	115

SOURCE: Authors' own elaboration.

grassroots levels. In terms of content, the FGD interview guide covered technical knowledge on nutrition as follows: importance of nutrition, production diversity, nutrition-friendly agricultural practices, gender-responsive agriculture labour practices, better agricultural practices for better water sanitation and hygiene, as well as coordination and collaboration as functional knowledge (Annex 4). Each FGD lasted one hour and was facilitated by two national experts and two research assistants.

Secondly, we asked staff members in the coordinating structures, namely DAECC, DNCC and ANCC, to complete a structured self-assessment questionnaire after the FGD. The content of the questionnaire included capacities on technical knowledge on nutrition as in the FGD, as well as functional capacities. Fifty-six staff members completed the questionnaire within 30 minutes.

2.5 Synthesis of results

Data from the FGDs was analysed using content analysis based on the interview guide categories, while that from the structured questionnaires was analysed using Excel to calculate frequencies and means. A draft report was produced from these results and circulated to stakeholders of this study for their input.

2.6 Validation workshop

A validation workshop was conducted on 28 January 2020 with the following objectives:

1. to present the results of the study to various stakeholders;
2. to allow stakeholders to provide feedback on the results of the study; and
3. to adjust the final report based on the comments received from the workshop.

FIGURE 2 ADMINISTRATIVE MAP OF MALAWI SHOWING DISTRICTS



SOURCE: Map adapted from Map No. 3858 Rev. 4 UNITED NATIONS April 2012. Department of Field Support CARTOGRAPHIC SECTION

A total of 18 participants whose organizations were involved in this study attended the validation workshop. The national experts presented the methodology and results of the study, which were followed by a plenary session. Thereafter, participants formed small groups to discuss what was missing, what was misrepresented and their opinion of the report. The feedback was consolidated in a workshop report.

2.7 Development of the final report

This final report was drafted taking input from the validation workshop into consideration. The workshop therefore added another dimension to the analysis of both the qualitative and quantitative data, improved the overall presentation of results and suggested ways to improve the GCNA methodology.

TABLE 2 NUMBER OF PARTICIPANTS IN THE FGDS, BY ORGANIZATION

	Organization	No. of participants
1	District Councils of Balaka, Dedza, Mchinji, Lilongwe and Salima from the following departments:	
	• Agriculture (crops, livestock, food and nutrition, extension, agribusiness, land resources, agricultural extension development coordinator, agricultural extension development officer)	32
	• Social welfare	5
	• Health	7
	• Planning and development	2
	• Community development	8
	• Education	2
	• Prison	1
2	Balaka LTV	1
3	Philadelphia	1
4	Assemblies of God Care	1
5	United Purpose	2
6	Azitona development services	1
7	Information department	2
8	Churches Action in Relief and Development	1
9	Investment Cooperative	1
10	Trade	1
11	Eco-Link	1
12	Agricultural Research and Extension Trust	1
13	Kasusuore	1
14	World Relief Malawi	4
15	Chisomo Radio	1
16	Inter Aide	1
17	Feed the Children	1
18	Farmers' representatives of ASP and ANCC	37
	Total	115

SOURCE: Authors' own elaboration.

3 CAPACITY NEEDS ASSESSMENT

This section provides findings from the assessment, based on the steps in the methodology section.

3.1 Enabling-environment level

Good nutrition has a direct influence on one's overall health and quality of life. As such, it is an important factor for enabling Malawi to achieve further social and economic development. This section sets out the nutrition and policy context in Malawi in relation to the agriculture sector.

3.1.1 Country nutrition context

The main challenges in nutrition concern undernutrition and, to a lesser extent, overweight. These challenges are closely related to the country's food security situation

UNDERNUTRITION

The nutrition challenge in Malawi is largely that of undernutrition with high prevalence of stunting among children under the age of 5 years old. As demonstrated by NSO and ICF International (2016),¹ 37.1 percent of children under 5 are stunted (short for their age), a decrease from 47.1 percent in 2010 (NSO and ICF, 2011 and 2016). Eleven percent are considered severely stunted. Stunting is slightly higher among male children (39 percent) than among female children (35 percent); and it is higher among children in rural areas (39 percent) than in urban areas (25 percent), with few differences across the regions (north, central and south).

In addition, the prevalence of stunting decreases as the mother's education level increases and as we move up the wealth groups. Thus, stunting ranges from 30 percent among children whose mothers benefited from secondary education or higher, to 43 percent among those whose mothers did not receive any formal education. In terms of wealth, 24 percent of children in the highest wealth group are stunted, while 46 percent of children in the lowest wealth group are stunted. Overall, 2.7 percent of children are wasted (down from 4 percent), with small differences according to background characteristics (NSO and ICF International, 2016; and NSO and ICF, 2011, respectively).

A similar inverse relationship is observed for underweight and minimum acceptable diet (NSO and ICF International, 2016). The percentage of children under the age of 5 who are underweight is 11.7 (down from 12.8 percent). Prevalence of underweight is higher in rural areas than in urban areas (12 percent and 8 percent, respectively). With regard to minimum acceptable diet, only 8 percent of children aged 6–23 months meet the criteria. This number decreases to 5 percent among children aged 6–23 months born to mothers with no formal education and increases to 13 percent among mothers with secondary education. Minimum acceptable diet is 4 percent among children aged 6–23 months in the lowest income group and 17 percent among the highest income group (NSO and ICF International, 2016). In terms of breastfeeding, the proportion of infants aged 0–6 months old who are exclusively breastfed declined from 71.4 percent in 2010 to 61.2 percent in 2015–16. In 2016, 61 percent of children aged 0–5 months were exclusively breastfed, while this figure dropped to 34 percent among children of aged 4–5 months old. In addition, feeding practices continue to deteriorate as children get older; only 9 percent of children aged 6–23 months receive a minimum acceptable diet (NSO and ICF International, 2016). At the same, the report indicated that prevalence of undernutrition is high among adolescent girls, at 15.6 percent.

There are many factors contributing to malnutrition in Malawi, embedded in various sectors. The Government of Malawi identifies the following as direct factors: repeated infections such as HIV and TB, diarrhoea, and malaria; and suboptimal breastfeeding and infant feeding practices resulting in inadequate dietary intake (GoM, 2018a). The underlying factors include food insecurity, gender inequality, poor hygiene practices and lack of safe water and sanitation. Prevention of undernutrition has been a challenge in Malawi mainly because of inadequate

¹ The 2015-16 Malawi Demographic and Health Survey collected data on child health and nutrition. It collected data on key indicators such as vaccinations of young children, nutritional status as assessed by anthropometry, infant feeding practices and treatment practices when a child is ill.

availability and access to diverse nutritious foods, poor health-seeking behaviour, water sanitation and hygiene, low access to quality healthcare, low education levels among caregivers and insufficient household incomes.

Tackling such a complex problem therefore requires nutrition-specific interventions as well as nutrition-sensitive interventions that call for a multisectoral approach.

Prevalence of micronutrient deficiencies mainly concerns iron, vitamin A and zinc. Generally, prevalence has decreased since 2010, with anaemia decreasing from 55 percent in 2010 to 28 percent and vitamin A from 59 percent in 2010 to 4 percent (GoM, 2018a). Sixty-three percent of children under 5 years of age as well as 33 percent of women are anaemic according to NSO and ICF International (2016). The rate for anaemia in children has been stagnant since 2010. However, zinc deficiency is common in all subgroups, ranging from 60 percent to 66 percent, and it is now a public health concern. With this situation, major undernutrition problems include both stunting and micronutrient deficiencies.

OVERWEIGHT AND OTHER NUTRITION-RELATED NON-COMMUNICABLE DISEASES

Apart from undernutrition, the prevalence of overweight and obesity is slowly increasing in Malawi and requires attention (GoM, 2018a). Of all adults between 15 and 49 years of age, 21 percent are overweight while 5 percent are obese (WHO, 2014). Women are more likely to be overweight and obese (24 percent are overweight and 6 percent are obese) than men (17 percent are overweight and 3 percent are obese). In addition, cardiovascular diseases (e.g. heart disease and stroke), cancer, respiratory diseases, and diabetes mellitus are increasingly contributing to morbidity and mortality in Malawi. The risk of nutrition-related non-communicable diseases rises with an increase in overweight and obesity. However, there is no regular identification and management of these diseases.

FOOD SECURITY SITUATION

Food insecurity is often a major reason for inadequate dietary intake because it means the food is not available in the quantities and quality required to maintain an active and healthy life. The majority of Malawians depend on rainfed agriculture for their food, nutrition and income security (WFP, 2019). Up to 60 percent of households said they faced some food shortages annually and about two-thirds of households in all districts had indications of food insecurity (GoM, 2014). Almost every year there is a need for food assistance in Malawi during the lean season (November to April), which is often exacerbated by climate-related shocks such as floods, drought and pest infestations (fall armyworms, other armyworms and locusts), as well as food prices (WFP, 2019).

Nationally, almost half of Malawians are food energy deficient, with higher prevalence in the southern districts versus central and northern regions (in that order). In the southern region, this is largely due to climatic shocks and small land-holding sizes. In the central region, it is largely due to lack of farm inputs followed by small land parcels. In urban areas, it is largely due to food prices (WFP, 2012). Three-quarters of this energy is derived from maize, with cassava, millet and rice in a few areas.

Overall, Malawi has a minimum household dietary diversity score, with 3.29 as the average number of food groups consumed (GoM, 2014). However, the highest proportion of households with no dietary diversity was mainly observed in the central region (Lilongwe, 41.7 percent; Ntchisi, 42.3 percent; Salima, 44.9 percent; Dedza, 47 percent), where they were unable to meet the minimum. In contrast, the highest proportion of households with high dietary diversity was observed in Chitipa, Karonga, Nkhata Bay, Likoma, Nkhotakota and Chikwawa, where at least two-thirds of households had high dietary diversity.

Staple foods and vegetables were the most widely consumed foods. The least consumed foods in most districts were animal-sourced, legumes, and fats and oils, implying that in the long term, this problem would lead to an inadequate intake of a wide range of nutrients. The high staple food and vegetable consumption reflects the limited diversity in farm production among most Malawian smallholders. Evidence suggests that farm production diversity in Malawi is positively associated with dietary diversity (Jones, Shrinivas and Bezner-Kerr, 2014).

3.1.2 Policy context influencing nutrition outcomes

As noted above, Malawi has poor nutrition indicators, which prompted the government to come up with the *National Multi-Sector Nutrition Policy 2018–2022* (GoM, 2018a), with the goal of having a well-nourished Malawian population that effectively contributes to the economic growth and prosperity of the country. The many policy objectives include the prevention and control of the most common nutrition disorders – especially among children under 5, pregnant women, lactating mothers and persons living with HIV and AIDS – as well as the creation of an enabling environment for the effective implementation of nutrition services, including nutrition education. In tandem with these objectives, the agricultural sector has been identified as highly important in ensuring the availability and promotion of food consumption patterns that maximize nutrient content and minimize malnutrition.

Policy priority area no. 5 of the national agriculture policy has specified a number of strategies in response to this challenge. Some of these strategies include:

- promoting the production and utilization of diverse nutritious foods in line with the national nutrition policy and strategic plan;
- fostering adequate market supply of and access to diverse and nutritious foods;
- ensuring food safety for all;
- promoting private-sector investments in the production, processing and marketing of high-quality nutritious foods, including complementary foods;
- coordinating investments and sub-sectoral policies and strategies that help improve the nation's nutritional status and promote healthy diets;
- promoting bio-fortification and fortification of major food staples; and
- promoting food and nutrition education for all.

The main strategies for achieving these policy statements revolve around the promotion of diverse nutritious food production and utilization along with nutrition education. The role of EAS is crucial in the implementation of these strategies. Currently, the DAES has a Food and Nutrition section, the mandate of which is to promote nutrition education among farming communities in the country.

In addition to the national agricultural policy, Malawi is in the process of developing the *Agriculture Sector Food and Nutrition Strategy 2018–2023* (GoM, 2018b, p25-30). It has marked out four strategic objectives.

1. Ensure stable availability of food from all the six food groups through sustainable and diversified production.
2. Ensure stable access to safe and nutritious foods from all the six food groups.
3. Promote and strengthen communication on nutrition social behaviour change to ensure stable, safe and diverse food availability, access and utilization.
4. Create and strengthen an enabling environment for effective delivery of food and nutrition interventions.

The document specifies several strategies and activities for each of these objectives. In addition, the document sets out the modalities for implementation and a monitoring and evaluation framework for these objectives, strategies and activities.

The *National Multi-Sector Nutrition Strategic Plan 2018–2022* (GoM, 2018a) also identified nutrition education as well as advocating for the production and utilization of diversified and nutritious foods among the strategies for addressing problems of malnutrition.

In addition to these policy and strategic planning documents, there are other policy and strategic documents that have a bearing on nutrition in Malawi. These include various policies:

- a. Priority area no. 6 of the seven priorities listed in Malawi's national youth policy is youth health and nutrition. This policy recognizes that malnutrition leads to ill health and poor growth and development of youth, which affects their capacity in later life (GoM, 2013). The policy

therefore promotes the involvement of youth in production, processing and utilization of nutritious foods as well as nutrition education.

- b. *Malawi National Gender Policy*. This policy highlights food security as a major concern, and the fact that women are the main providers of food in their families yet do not have access and control over agricultural production resources, technologies and markets (GoM, 2015a). Men's involvement tends to be inadequate, which can result in food shortage and malnutrition that mostly affects women and children since men are traditionally expected to consume the most nutritious foods. Food insecurity and malnutrition also result in an increase in school dropouts, especially among girls, as they are expected to assist their mothers in searching for food. As mentioned earlier, women with a higher education level tend to have better nutritional practices for themselves and their children. Food shortage and malnutrition are a major cause of maternal and under-five mortality. The policy therefore advocates for women's increased access to and control over agricultural production resources, technologies and markets. It also advocates for the reduction of nutritional disorders among all gender groups.
- c. *National School Health and Nutrition Strategic Plan*. This strategic plan was developed in recognition of the fact that, in addition to the many health challenges school-aged children face in Malawi, many of them enter life with a poor nutrition status. Poor nutrition for most children starts with the poor diets of their mothers during pregnancy (GoM, undated). Children are therefore undernourished from the womb and this continues during breastfeeding and weaning periods, which are highly critical periods for human development. These children enter the formal education systems with certain nutritional deficits. There are other causes of malnutrition that children face, such as poor dietary diversity, poor water and sanitation practices, diseases and illnesses, inadequate knowledge on health and nutrition matters, harmful cultural practices and social pressure. Many children go to school without eating breakfast, while some only eat breakfast once in a while. Child malnutrition is extremely prevalent in Malawi. In response to these challenges, the strategic plan is for the implementation of a number of school health and school nutrition interventions. The school nutrition interventions include: school meal programmes; nutrition education; dietary diversification with emphasis on micronutrients and micronutrient supplementation; as well as water, sanitation and hygiene programmes.
- d. The *National Food Insecurity Response Plan 2015/2016*. This plan which was developed in response to the food insecurity situation in 2016–17, after the floods and droughts that Malawi experienced at that time (GoM, 2015b). Two of the eight objectives of the response plan were to reduce the number of people in food insecurity and to reduce acute malnutrition. A similar plan was also developed for the 2018–2019 period.
- e. The *National Food Insecurity Response Plan 2015/2016*. Malawi adopted a decentralized governance structure in 1998, which gave district councils responsibility for implementing the programmes of the line ministries in the districts (GoM, 1998). The policy therefore mandated district councils to implement food and nutrition in their districts.

Overall, Malawi has a good number of policies that provide a framework for a successful economy (World Bank, 2019). The major challenge lies in their implementation. In most cases, the policies do not benefit from the resources required for them to become operational.

3.1.3 Stakeholder mapping

Thirty-eight organizations responded to our short online survey. The details on each stakeholder, its geographical focus, its specific roles in nutrition, the clients served, and the specific delivery channels used are summarized in Table 3.

TABLE 3 STAKEHOLDERS INVOLVED IN NUTRITION (PERFORMING KEY EAS ROLES) IN MALAWI

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
1	International Potato Center (CIP)	CGIAR System Organization	<ul style="list-style-type: none"> • Infant and young child feeding • Nutrition education • Agricultural diversification • Food processing and preservation • Seed diversification/multiplication • Indigenous biodiversity 	National (all over the country)	<ul style="list-style-type: none"> • Pregnant/lactating women • Infants/young children (below 5 years) • School children • Farming households • Female farmers 	<ul style="list-style-type: none"> • Health educators • Community health workers • Government nutrition officers • Agricultural extension staff • Nursery schools • Primary schools • Community leaders • Community-based organizations • Women/mother support groups • Farmers' organizations • Farmers • Distributors • Supermarket/shops • Ngo staff • Media (tv, radio, sms, etc.) • Private sector
2	MERAMO Consulting	consultancy firm	<ul style="list-style-type: none"> • Nutrition education • Agricultural diversification • Food processing and preservation 	Wherever client wants	<ul style="list-style-type: none"> • Farming households • Female farmers 	<ul style="list-style-type: none"> • Agricultural extension staff • Farmers' Organizations • Farmers • Other (please specify): "as preferred by our client"
3	Adziwa Christian organization	faith-based organization	-	-	School children	<ul style="list-style-type: none"> • Hospitals/clinics • Health centres • Agricultural extension staff • Primary schools • Community-based organizations • Private sector
4	Wezi farm enterprise	farmer-based organization (FBO)	<ul style="list-style-type: none"> • Water, sanitation and hygiene (WASH) • Social protection • Agricultural diversification • Seed Diversification/multiplication 	Traditional authority Wimbe	Nutrition education WASH	Traditional authority

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
5	Innovative Fish Farmers Network Trust (IFFNT)	FBO	<ul style="list-style-type: none"> • Agricultural diversification • Food processing and preservation 	National (all over the country)	<ul style="list-style-type: none"> • Farming households • Youth/ adolescents • Female farmers 	<ul style="list-style-type: none"> • Agricultural extension staff • Farmers' Organizations • Farmers
6	NASFAM	FBO	<ul style="list-style-type: none"> • Nutrition education • Agricultural diversification • Food processing and preservation • Seed diversification/ multiplication 	National (allover the country)	Farming households	<ul style="list-style-type: none"> • Government nutrition officers • Agricultural Extension staff • Farmers' organizations • Farmers • Supermarket/ shops • Media • Other (please specify): own extension officers
7	Za Alimi Agridealers	FBO	Micronutrient supplementation	Traditional Authority (mention these)	School children	Community healthworkers
8	District Agriculture Development Office	Government or ministry	<ul style="list-style-type: none"> • Infant and young child feeding • Nutrition education • Nutrition governance • Agricultural diversification • Food processing and preservation 	Balaka district	<ul style="list-style-type: none"> • Pregnant/ lactating women • Farming households • Youth/ adolescents • Female farmers 	<ul style="list-style-type: none"> • Agricultural extension staff • Community Leaders • Women/mother support groups • Farmers' organizations • Farmers

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
9	Mchinji District Council	Government or ministry	<ul style="list-style-type: none"> • Infant and young child feeding • Micronutrient supplementation • Disease prevention/management • Maternal, neonatal & child health • Nutrition education • Wash • Social protection • Nutrition governance • Agricultural diversification • Food processing and preservation 	Mchinji district	All	<ul style="list-style-type: none"> • Hospitals/clinics • Health centres • Nurses • Health educators • Community health workers • Government nutrition officers • Agricultural extension staff • Primary schools • Community leaders • Community-based organizations • Women/mother support groups • Farmers' organizations • Farmers • Ngo staff • Media
10	Ministry of Health. Department of Nutrition, HIV and AIDS	Government or ministry	<ul style="list-style-type: none"> • Infant and young child feeding • Maternal, neonatal & child health • Nutrition education • Social protection • Nutrition governance • Agricultural diversification 	National (allover the country)	All	<ul style="list-style-type: none"> • Hospitals/clinics • Health educators • Community health workers • Government nutrition officers • Agricultural extension staff • Primary schools • Community leaders • Community-based organizations • Women/mother support groups

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
11	Department of Agricultural Research Services (DARS)	Government or ministry (public research institution)	<ul style="list-style-type: none"> • Agricultural diversification • Food processing and preservation • Seed diversification/multiplication 	National (all over the country)	All	<ul style="list-style-type: none"> • Government nutrition officers • Agricultural Extension staff • Community leaders • Community-based organizations • Women/mother support groups • Farmers' organizations • Farmers • Distributors • Ngo staff • Media • Private sector • Other (please specify): secondary school extension programmes
12	MAIWD, DAES	Government or ministry	<ul style="list-style-type: none"> • Infant and young child feeding • Maternal, neonatal & child health • Nutrition education • Nutrition governance • Agricultural diversification • Food processing and preservation 	National (allover the country)	All	<ul style="list-style-type: none"> • Government nutrition officers • Agricultural Extension staff • Community leaders • Farmers' organizations • Farmers
13	MAIWD. Chiradzulo	Government or ministry	<ul style="list-style-type: none"> • Nutrition education • Agricultural diversification • Food processing and preservation 	National (allover the country)	All	<ul style="list-style-type: none"> • Government nutrition officers • Agricultural Extension staff • Community leaders • Community-based organizations • Women/mother support groups • Farmers • Ngo staff • Media

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
14	OXFAM in Malawi	International NGO	<ul style="list-style-type: none"> • Infant and young child feeding • Nutrition education • Wash • Social protection • Nutrition governance • Agricultural diversification • Food processing and preservation 	National (allover the country)	<ul style="list-style-type: none"> • Pregnant/lactating women • Infants/young children (below 5 years) • Farming households • Youth/adolescents • Female farmers 	<ul style="list-style-type: none"> • Health centres • Community health workers • Government nutrition officers • Agricultural Extension staff • Community leaders • Community-based organizations • Farmers' organizations • Farmers • Ngo staff • Media • Private sector
15	International Food Policy Research Institute (IFPRI)	International organization	Policy research on food, agriculture and nutrition	National (allover the country)	All	<ul style="list-style-type: none"> • Media • Other (please specify): • Policy events, workshops, policy briefs, working papers, website and twitter
16	GIZ	International organization	<ul style="list-style-type: none"> • Infant and young child feeding • Maternal, neonatal & child health • Nutrition education • Wash • Social protection • Nutrition governance • Agricultural diversification • Food processing and preservation 	Dedza and Salima, 4 and 3 tas, respectively	<ul style="list-style-type: none"> • Pregnant/lactating women • Infants/young children (below 5 years) 	<ul style="list-style-type: none"> • Community health workers • Government nutrition officers • Agricultural Extension staff • Women/mother support groups • Ngo staff • Media

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
17	Kusamala Institute of Agriculture and Ecology	NGO	<ul style="list-style-type: none"> • Nutrition education • Agricultural diversification • Food processing and preservation • Seed diversification/multiplication • Indigenous biodiversity 	Lilongwe district	<ul style="list-style-type: none"> • Farming households • Youth/adolescents • Female farmers 	<ul style="list-style-type: none"> • Government nutrition officers • Agricultural Extension staff • Farmers' organizations • Ngo staff
18	One Acre Fund	NGO	Agricultural diversification	Zomba, blantyre, chiradzulu, mulanje diversification	Farming households	Agricultural extension staff
19	Self Help Africa Malawi	NGO	<ul style="list-style-type: none"> • Infant and young child feeding • Nutrition education • Wash • Agricultural diversification • Food processing and preservation • Seed diversification/multiplication 	National (allover the country)	Farming households	<ul style="list-style-type: none"> • Government nutrition officers • Agricultural Extension staff • Farmers • Ngo staff • Media
20	Civil Society Agriculture Network	NGO	Nutrition governance	National (allover the country)	<ul style="list-style-type: none"> • Farming households • Youth/adolescents • Female farmers 	<ul style="list-style-type: none"> • Government nutrition officers • Agricultural Extension staff • Community leaders • Community-based organizations • Farmers' organizations • Farmers • Ngo staff • Media • Private sector

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
21	Find Your Feet	NGO	<ul style="list-style-type: none"> • Disease prevention/management • Nutrition education • Wash • Social protection • Nutrition governance • Agricultural diversification • Food processing and preservation • Seed diversification/multiplication • Indigenous biodiversity 	Mzimba, nkhata bay, rumphi, kasungu, balaka districts	<ul style="list-style-type: none"> • Pregnant/lactating women • Farming households • Youth/adolescents • Female farmers 	<ul style="list-style-type: none"> • Community health workers • Government nutrition officers • Agricultural Extension staff • Community leaders • Community-based organizations • Farmers • Media
22	Rhema Institute for Development	NGO	<ul style="list-style-type: none"> • Nutrition education • Wash • Agricultural diversification 	National (allover the country)	All	<ul style="list-style-type: none"> • Government nutrition officers • Agricultural Extension staff • Community leaders • Farmers • Ngo staff • Media
23	Feed the Children	NGO	<ul style="list-style-type: none"> • Infant and young child feeding • Disease prevention/management • Maternal, neonatal & child health • Nutrition education • Wash • Agricultural diversification • Food processing and preservation 	Traditional authorities include. Hitipa, karonga, rumphi, dowa, lilongwe, mchinji, Salima and nkhotakota. Traditional authorities include. Kameme, nthalire, wenya, Misuku and Mwaulambia in chitipa; kyungu, mwilang'ombe, kilupula, Wasambo and mwakaboko in karonga; Chisovya and mwahenga in rumphi;	<ul style="list-style-type: none"> • Pregnant/lactating women • Infants/young children (below 5 years) • Farming households • Youth/adolescents 	<ul style="list-style-type: none"> • Community health workers • Government nutrition officers • Agricultural Extension staff • Nursery schools • Community leaders • Farmers • Ngo staff • Media • Other (please specify): care groups

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
				Msakambewa and Chakhadza in Dowa; Chiseka, Chadza and Masula in Lilongwe; Dambe, Mawwere, Mlonyeni and Kapondo in Mchinji; Kanyenda and Kafuzira in Nkhotakota; Salima, Khombedza, Mwanza, Makanjira, Ndindi and Kuulunda in Salima district		
24	Baylor College of Medicine	NGO	<ul style="list-style-type: none"> • Infant and young child feeding • Micronutrient supplementation • Disease prevention/management • Maternal, neonatal & child health • Nutrition education • Wash • Food processing and preservation 	National (allover the country)	<ul style="list-style-type: none"> • Pregnant/lactating women • Infants/young children (below 5 years) • Those having ailments/or sick • Youth/adolescents 	<ul style="list-style-type: none"> • Hospitals/clinics • Health centres • Government nutrition officers • Ngo staff
25	Soils Food and Healthy Communities organization	NGO	<ul style="list-style-type: none"> • Infant and young child feeding • Nutrition education • Agricultural diversification • Seed Diversification/multiplication • Indigenous biodiversity 	North and central regions mzimba and dedza	All	<ul style="list-style-type: none"> • Community health workers • Agricultural extension staff • Community Leaders • Community-based organizations • Farmers • Ngo staff • Media

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
26	CARE Malawi	NGO	<ul style="list-style-type: none"> • Infant and young child feeding • Nutrition education • Wash • Social protection • Nutrition governance • Agricultural diversification • Food processing and preservation • Seed diversification/multiplication 	National (allover the country)	<ul style="list-style-type: none"> • Pregnant/lactating women • Infants/young children (below 5 years) • Farming households • Youth/adolescents • Female farmers 	<ul style="list-style-type: none"> Health centres Health educators Community health workers Government nutrition officers Agricultural Extension staff Community leaders Women/mother support groups Farmers Ngo staff Media Agricultural extension staff Community Leaders Farmers' organizations Farmers Ngo staff
27	Dedza's Catholic Development Commission in Malawi	NGO	<ul style="list-style-type: none"> • Nutrition education • Wash • Agricultural diversification • Food processing and preservation 	Dedza and ntcheu districts	Farming households	<ul style="list-style-type: none"> • Agricultural extension staff • Community Leaders • Farmers' organizations • Farmers • Ngo staff
28	World Vision Malawi	NGO	<ul style="list-style-type: none"> • Infant and young child feeding • Micronutrient supplementation • Disease prevention/management • Maternal, neonatal & child health • Nutrition education • Was • Agricultural diversification • Food processing and preservation • Seed diversification/multiplication 	National (allover the country)	<ul style="list-style-type: none"> • Pregnant/lactating women • Infants/young children (below 5 years) 	<ul style="list-style-type: none"> • Health educators • Community health workers • Agricultural extension staff • Community Leaders • Women/mother support groups • Ngo staff

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
29	Healthcare Nutrition Centre	Private sector organization or firm	<ul style="list-style-type: none"> • Infant and young child feeding • Micronutrient supplementation • Disease prevention/management • Nutrition education • Wash • Nutrition governance 	National (allover the country)	<ul style="list-style-type: none"> • Pregnant/lactating women • Infants/young children (below 5 years) • Those having ailments/or sick • Youth/adolescents • Other (please specify): • Those with nutrition-related complications 	<ul style="list-style-type: none"> • Hospitals/clinics • Health centres • Nurses • Health educators • Community health workers • Community leaders • Media • Private sector
30	NutriCare	Private sector organization or firm	<ul style="list-style-type: none"> • Infant and young child feeding • Micronutrient supplementation • Maternal, neonatal & child health • Nutrition education • Social protection • Nutrition governance • Food processing and preservation 	National (allover the country)	<ul style="list-style-type: none"> • Pregnant/lactating women • Infants/young children (below 5 years) • School children • Farming households • Youth/adolescents • Female farmers 	<ul style="list-style-type: none"> • Health educators • Community health workers • Government nutrition officers • Primary schools • Community leaders • Community-based organizations • Farmers' organizations • Farmers • Distributors
31	Perisha Agro and Packaging Enterprise	Private sector organization or firm	<ul style="list-style-type: none"> • Infant and young child feeding • Maternal, neonatal & child health • Nutrition education • Agricultural diversification • Food processing and preservation • Seed diversification/multiplication • Indigenous biodiversity 	Lilongwe district	<ul style="list-style-type: none"> • All • Pregnant/lactating women • Infants/young children (below 5 years) • Those having ailments/or sick • School children • Farming households • Female farmers 	<ul style="list-style-type: none"> • Government nutrition officers • Agricultural extension staff • Community leaders • Community-based organizations • Women/mother support groups • Farmers' organizations • Farmers • 3 • Supermarket/shops • Ngo staff • Media

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
32	LiveOnce healthy juicers	Private sector organization or firm	<ul style="list-style-type: none"> • Disease prevention/management • Nutrition education • Food processing and preservation 	Regional	<ul style="list-style-type: none"> • Pregnant/lactating women • School children • Female farmers 	<ul style="list-style-type: none"> • Health centres • Supermarket/shops • Media • Private sector
33	MUDYO Company Limited	Private sector organization or firm	<ul style="list-style-type: none"> • Agricultural diversification • Food processing and preservation 	National (allover the country)	All	<ul style="list-style-type: none"> • Distributors • Supermarket/shops • Media • Private sector
34	CFAZ Foods	Private sector organization or firm	<ul style="list-style-type: none"> • Micronutrient supplementation • Agricultural diversification • Food processing and preservation 	National (allover the country)	All	<ul style="list-style-type: none"> • Distributors • Supermarket/shops • Media
35	Commercial Agriculture Support Services	Private sector organization or firm	<ul style="list-style-type: none"> • Agricultural diversification • Food processing and preservation 	National (allover the country)	All	<ul style="list-style-type: none"> • Government nutrition officers • Distributors • Media • Private sector
36	Chancellor College of the University of Malawi	Semi-autonomous government organization (parastatal)	<ul style="list-style-type: none"> • Micronutrient supplementation 	National (allover the country)	All	<ul style="list-style-type: none"> • Government nutrition officers • Distributors • Media • Private sector
37	UN World Food Programme	UN organization	<ul style="list-style-type: none"> • Infant and young child feeding • Micronutrient supplementation • Disease prevention/management • Maternal, neonatal & child health • Nutrition education • Wash • Social protection • Nutrition governance • Agricultural diversification • Food processing and preservation 	Nsanje, chikwawa, balaka, phalombe, zomba, machinga districts	<ul style="list-style-type: none"> • Pregnant/lactating women • Infants/young children (below 5 years) • School children • Farming households • Youth/adolescents 	<ul style="list-style-type: none"> • Health centres • Health educators • Community health workers • Government nutrition officers • Agricultural extension staff • Primary schools • Community leaders • Community-based organizations • Women/mother support groups • Farmers' organizations • Ngo staff • Media • Private sector

No.	Stakeholders involved in nutrition	Type of organization	Key nutrition-related roles performed	Geographical focus	Type of clients served	Delivery mechanism used
38	Center for Agricultural Development and Youth Participation (CADYoP)	Youth lead	<ul style="list-style-type: none"> • Infant and young child feeding • Disease prevention/management • Maternal, neonatal & child health • Wash • Nutrition governance • Agricultural • Diversification 	National (allover the country)	All	<ul style="list-style-type: none"> • Health educators • Government nutrition officers • Community Leaders • Community-based organizations • Farmers • Other (please specify): peer educators

SOURCE: Authors' own elaboration.

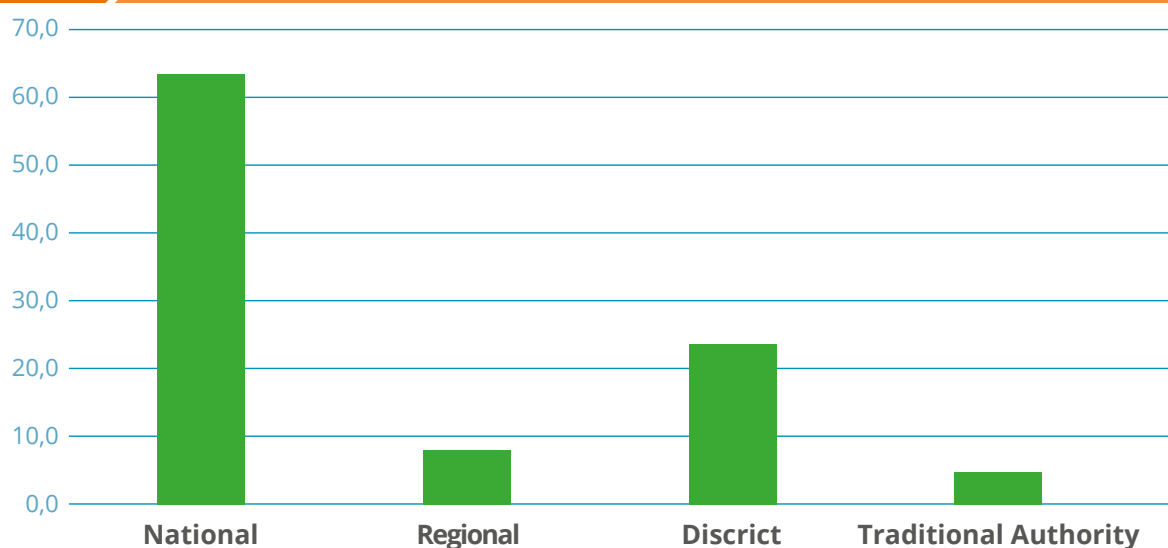
FIGURE 3 ORGANIZATION TYPE, BY PERCENTAGE

SOURCE: Authors' own elaboration.

What follows is an overall picture of the findings from this online survey. Figure 3 shows that 38 percent of respondents were NGOs, 21 percent from the private sector, 16 percent from the government and 10 percent were farmer-based organizations. A few (5 percent or fewer) were faith-based, international, semi-autonomous or public research organizations. These actors are mainly from the agricultural sector, with a few from the education and health sectors.

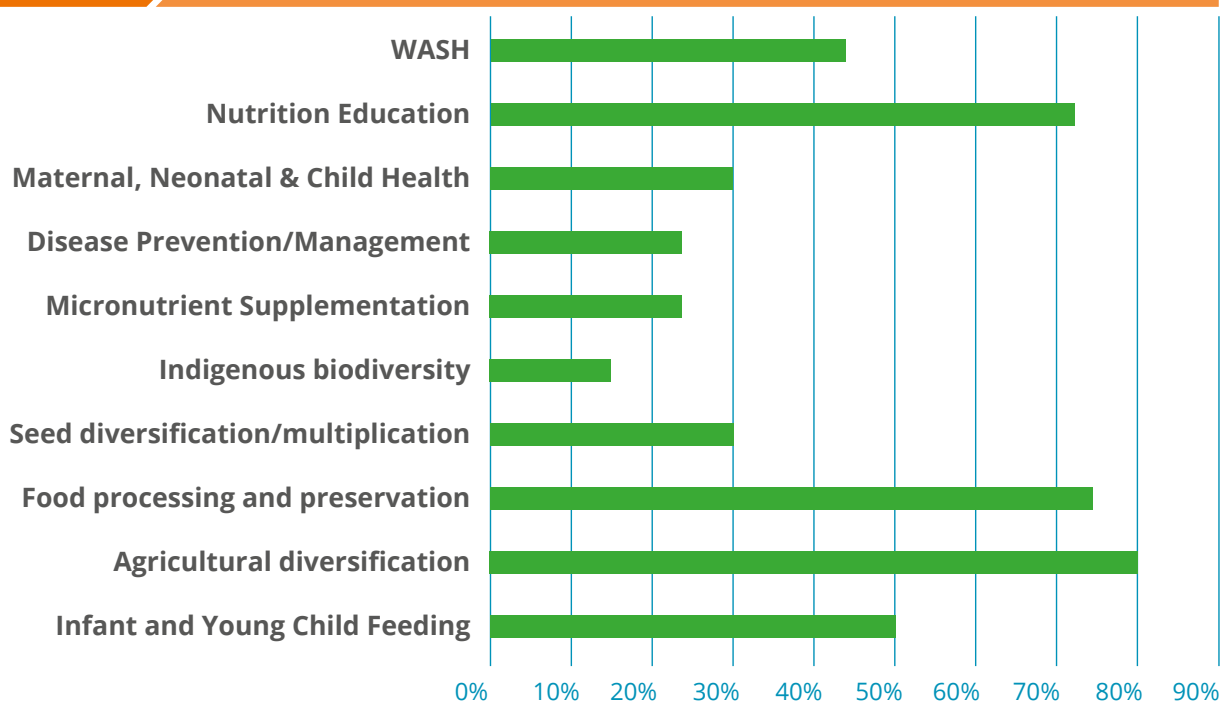
We asked the participants to indicate their geographical focus or mandate. Figure 4 indicates that 63 percent operate at a national level, 24 percent at the district level, 9 percent at the regional level and 5 percent at the traditional authority level. National level means they are all over the country, although they may not necessarily be in all the districts. District or traditional authority levels means they are in one or a few areas at that level. As the FGDs showed, these stakeholders are not evenly distributed, with some districts having significant representation, while others have little. The need for collaboration and coordination is therefore critical in this regard.

FIGURE 4 GEOGRAPHICAL FOCUS, BY PERCENTAGE



SOURCE: Authors' own elaboration.

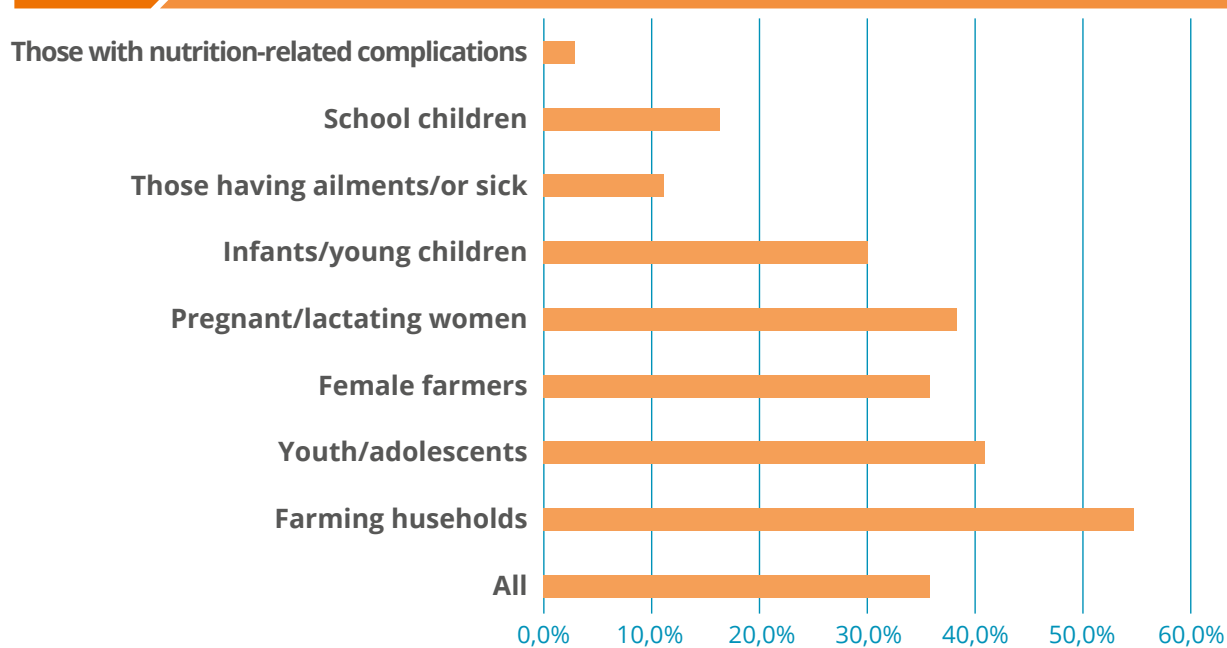
FIGURE 5 PERCENTAGE OF NUTRITION-RELATED ROLES PERFORMED BY ORGANIZATIONS



Note. Organizations selected multiple responses.

SOURCE: Authors' own elaboration.

The organizations play various roles as shown in Figure 5. Most organizations are involved in agricultural diversification (81 percent), food processing and preservation (75 percent), nutrition education (72 percent), and infant and young child feeding (50 percent). Roles such as maternal and child health, disease prevention, micronutrient supplementation, seed diversification/multiplication and indigenous biodiversity were mentioned less frequently. Indigenous biodiversity was the least frequently mentioned. These roles reflect the importance of agriculture in addressing nutrition problems in the Malawi organizations most frequently working with various clients: farming households, youth/adolescents, pregnant/lactating women, female farmers and infants/young children (Figure 6). In addition, 35 percent of the organizations work with all the types of clients listed. The clients listed are among the most vulnerable in terms of undernutrition and food security.

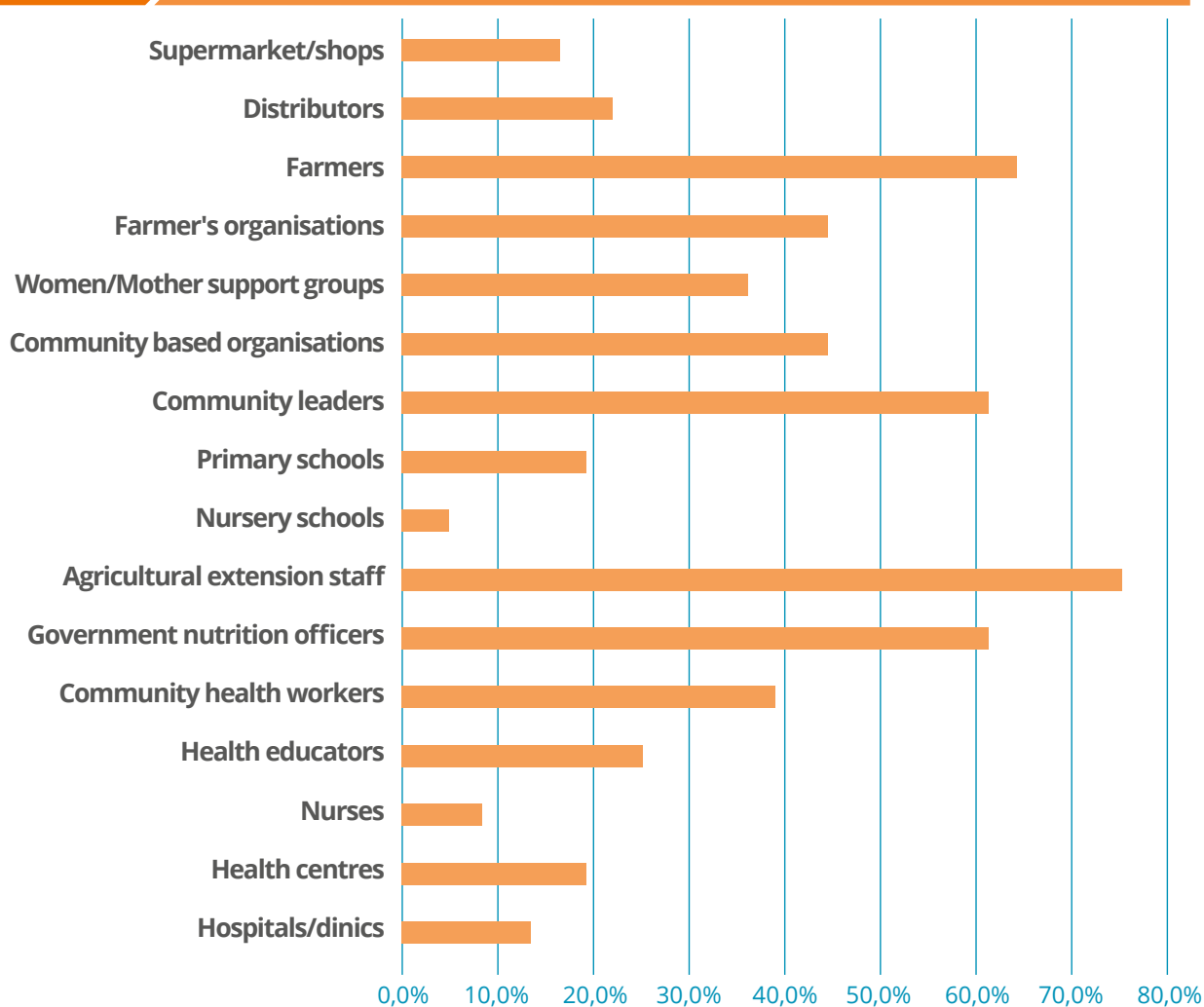
FIGURE 6 TYPES OF CLIENTS, BY PERCENTAGE

Note. Organizations selected multiple responses.

SOURCE: Authors' own elaboration.

We also asked participants to mention their delivery channels, i.e. the mechanisms used to reach the target groups with each of the key nutrition-related roles they mentioned. In response, various channels were mentioned, with agricultural extension staff being mentioned by most organizations (75 percent), as shown in Figure 7. Other frequently mentioned channels were farmers (64 percent), community leaders (61 percent) and government nutrition officers (61 percent). This suggests the need to invest in these delivery channels and for collaboration among stakeholders in implementing NSA.

FIGURE 7 DELIVERY CHANNELS USED, BY PERCENTAGE



Note. Organizations selected multiple responses.

SOURCE: Authors' own elaboration.

3.2 Organizational level

This section provides findings from the capacity assessment at the organizational as well as the individual level.

3.2.1 Organizations selected for detailed organizational assessment

Eight organizations shown in Table 4 were available for the detailed assessment, including one faith-based organization, one farmer-based organization, one government ministry (including two government departments), one international organization, one NGO, a parastatal organization, one private-sector organization and one UN organization.

ADZIWA CHRISTIAN ORGANIZATION. This is a faith-based organization supported by the Baptist Church. One of its core activities is running a school, which ensures that children eat well and eat diversified foods. The school has a nursery, primary and secondary school. However, emphasis is at the primary and nursery levels. Its health strategy focuses on nutrition and feeding programmes, preventive health, WASH, curative health and family planning. Adziwa targets the children as well as their households.

IFFNT. This is an FBO established under a project of LUANAR. Its main objective is to improve fish supply in order to improve food security, nutrition and income among farmers. Specifically, it helps to improve fish production by farmers, incorporate the consumption of fish for children under five and promote fish processing.

TABLE 4 ORGANIZATIONS SELECTED FOR DETAILED ORGANIZATIONAL-LEVEL CAPACITY ASSESSMENT

	Name of organization	Type of organization	Geographical focus
1	Adziwa Christian organization	Faith-based organization	Lilongwe district
2	IFFNT	FBO	National
3	MAIWD, DAES and DARS	Government or Ministry	National
4	GIZ	International organization	Dedza and Salima districts
5	Feed the Children	NGO	Chitipa, Dowa, Karonga, , Lilongwe, Mchinji, Nkhosvota, Rumphu and Salima districts
6	LUANAR-BC and LUANAR -NRC	Parastatal organization	Lilongwe district
7	Perisha Agro and Packaging Enterprise	Private sector organization	National
8	FAO	UN organization	National

SOURCE: Authors' own elaboration.

MAIWD. DAES and DARS were the only departments selected for this assessment. Although, for both of them, nutrition is a cross-cutting issue, the focal point for nutrition activities in this ministry is DAES, which works with all the departments to address nutrition issues. As mentioned earlier, the agriculture sector is key in solving nutrition challenges, and DAES has the most elaborate nutrition programmes and structures among the departments in this ministry. It works through the public agricultural extension staff from national down to the grassroots level, targeting farming households. Its main activity is nutrition education and surveillance.

On the other hand, DARS' mandate focuses on agricultural research for different commodities, including crops and animals. In its research activities, the department looks at each commodity from production to processing at the end of the production chain, and this is where nutrition comes in. DARS works with all the departments in the ministry as well as different partners in the public and private sectors that require its services.

GIZ MALAWI. GIZ is an international organization that works in partnership with the government – in this case the Department of Nutrition, HIV and AIDS – to support partners in implementing nutrition activities. GIZ has a Food Nutrition and Security Programme, which runs in 11 countries, including Malawi. The programme has four fields of activities, namely:

- a. nutrition education among women and children;
- b. resilience at the household level – aiming at achieving food and nutrition-secure households;
- c. strengthening nutrition coordination structures at the field level; and
- d. supporting DNHA at the national level in terms of policy development and studies.

GIZ works with partners in the field such as CARE International, United Purpose and MAIWD.

FEED THE CHILDREN. This is an international NGO that aims at ending childhood hunger. It works with government and other partner agencies to reach communities across the country. Its vision is to create a world where no child goes to bed hungry. Nutrition and health are two of its major components in Malawi, among others such as livelihood, and water and sanitation.

LUANAR. This is a public university established as a parastatal organization. Its core activities include teaching, training, research, outreach and consultancy services. Among its many programmes, LUANAR offers nutrition diplomas and degrees at both undergraduate and postgraduate levels. The diploma is taught at the Natural Resources College while the degree programmes are found at Bunda College. Apart from its specialist nutrition programmes, LUANAR also provides nutrition courses to students on other programmes such as agricultural extension, as well as training for students and staff of partner organizations.

PERISHA AGRO AND PACKAGING ENTERPRISE. This is a private-sector organization that aims to improve the nutrition status of women and children by promoting the growing of nutritious foods, specifically orange flesh sweet potatoes, orange maize and cassava. Its activities include maize seed multiplication, sweet potato vines and cassava multiplication, and processing cassava and orange maize to produce flour. Perisha works with smallholder farmers in the production of the commodities and in partnership with other development and implementing agencies.

FAO. This is a United Nations organization focusing on food security and agriculture. In Malawi, one of its strategic objectives is to eradicate hunger. In terms of nutrition, it has two major projects, Afikepo and KULIMA. Afikepo (a Chewa word meaning “let them develop to their full potential”) is a nutrition and food security programme targeting women of childbearing age, adolescent girls, infants and young children. KULIMA stands for Kutukula Ulima m’Malawi, which in Chichewa means “promoting farming in Malawi”. The project aims at contributing to sustainable agricultural growth, incomes and employment, and food security. Through the two projects, FAO works with government and other implementing partners to reach smallholder farmers.

3.2.2 Mandates of selected organizations

Out of the eight organizations, only three (Feed the Children, Perisha and FAO) had nutrition in their organization mandate. Feed the Children is a project whose mandate is to ensure no child goes to bed hungry. Perisha’s mandate is to improve the nutrition status of women and children through the growing and consumption of nutritious crops, while FAO’s mandate is to ensure food and nutrition security for all. However, the other five organizations have mandates that indirectly promote nutrition. In other words, they have nutrition as one of their core activities. In MAIWD, DAES has nutrition reflected in its mission statement and charter. GIZ does not have nutrition in its mandate but has a food and nutrition security project as described above. The mandate of IFFNT is to promote fish farming and nutrition is therefore indirectly promoted. Adziwa has nutrition as its core activity to ensure children are well-nourished. The university has a department dealing with nutrition as well as nutrition programmes at diploma, degree and postgraduate levels.

3.2.3 Specific programmes implemented on nutrition

We asked participants to describe the specific nutrition programmes their organizations were implementing. A total of 17 programmes and activities were mentioned, and these are summarized in Table 5. In general, the organizations were involved in a diversity of nutrition programmes, including nutrition education, promotion of diversification in production, promotion of dietary diversification, and supplementary feeding including school feeding, and irrigation farming. Table 5 shows that most organizations were implementing more than one programme or activity. It is also clear that MAIWD through DAES is a key player in nutrition, both as an implementer and as a collaborator. Most of the clients served were farmers and farmer groups, which is in agreement with the stakeholder mapping survey findings above. In addition, it reflects the importance of agriculture in the country, as mentioned earlier. There were many partners engaged in these programmes, ranging from government ministries and departments, development partners and non-governmental organizations. This is reflected in the diverse membership of nutrition structures at district and area levels, as the results of the FGDs show.

The major capacity building programmes were training through short courses and long-training programmes. Participants explained that capacity development activities are usually done for extension staff of the organization as well as their collaborators. Training is organized using the cascade model, whereby organizations request the DNHA to facilitate the training. The department mobilizes a team of trainers through the NNCC to train a team of experts at the district level – members of the DNCC. They, in turn, train members of the ANCC, who train caregivers in the communities. According to the key informants, the training materials used are those developed under the Scaling Up Nutrition project. There are a number of modules which can be accessed through the DNHA. It was clearly mentioned, however, that training materials developed specifically for NSA are not yet available.

TABLE 5 SPECIFIC PROGRAMME ON NUTRITION

No.	Name of organization implementing	Nature of programmes	Type/category of clients served	Number of such interventions in a year and reach (number of clients directly reached)	Partners in these interventions	Capacity development activities for EAS to implement these programmes
1	FAO, MAIWD DAES, Nutrition Section; IFFNT	Advise rural communities on importance of dietary diversity	Farmers	4	MAIWD DAES, Nutrition Section; IFFN; FAO Malawi; ASPs; ANCCs; DAECs; DNCCs	n.a.
2	MMAIWD DAES, LUANAR-NRC	Nutrition training (organize lecture/classes on nutrition from different food sources) as part of a specific programme (with expected nutrition outcomes)	Farmers	6	MAIWD DAES, Nutrition Section; IFFN, FAO Malawi; GIZ; Adziwa Christian School; ASPs; ANCCs; DAECs; DNCCs	Short courses for extension staff
3	LUANAR-BC & LUANAR-NRC	Nutrition education (formal certificate/degree/diploma) as part of the university academic programme	Agriculture extension staff, undergraduate and postgraduate students	7	LUANAR -NRC, LUANAR - BC	Short courses as well as long-term training programmes for both technicians and teaching staff
4	MAIWD DAES, FAO, Feed the Children	Promotion of kitchen gardens	Farmers, care group members	4	MAIWD DAES, Nutrition Section; FAO Malawi; Adziwa Christian School; ASPs; ANCCs; DAECs; DNCCs	Short courses for extension staff
5	FAO, MAIWD DAES	Promotion of integrated household farming	Farmers, care group members	n.a.	MAIWD DAES, Nutrition Section; FAO Malawi; Adziwa Christian School; ASPs, ANCCs; DAECs; DNCCs	Short courses for extension staff
6	Adziwa Christian School	Promotion of school gardens	School children	n.a.	Adziwa Christian School	n.a.

No.	Name of organization implementing	Nature of programmes	Type/category of clients served	Number of such interventions in a year and reach (number of clients directly reached)	Partners in these interventions	Capacity development activities for EAS to implement these programmes
7	MAIWD DAES, Aziwa Christian School, Feed the Children	Distribution of seeds/ seedlings/ planting material of fruits	Farmers, care group members	n.a.	MAIWD DAES, Nutrition Section; Feed the Children; Adziwa Christian School; Perisha	n.a.
8	FAO, MAIWD DAES and DARS	Promote crop diversification	Farmers, women in care groups	n.a.	MAIWD DAES, Nutrition Section; FAO Malawi; GIZ; Adziwa Christian School; ASPs, ANCCs; DAECCs; DNCCs	Short courses for extension staff
9	FAO, MAIWD DAES	Promote dietary diversification	Farmers, Care group members	n.a.	MAIWD DAES, Nutrition Section; IFFN; FAO Malawi; GIZ; Adziwa Christian School; ASPs, ANCCs; DAECCs; DNCCs	Short courses for extension staff
10	LUANAR-BC LUANAR- NRC	Conduct research on nutrition	Nutritionists, extension professionals	n.a.	LUANAR – BC, LUANAR - NRC	n.a.
11	Perisha, FAO, MAIWD DAES	Promote production and consumption of bio-fortified foods	Farmers, women in care groups	n.a.	DAECCs; ASPs; MAIWD DAES, Nutrition Section; FAO Malawi; GIZ	Short courses as well as long- term training programmes for staff
12	FAO, MAIWD DAES	Promote cooking methods that preserve nutrients in fruits and vegetables	Farmers, women in care groups	n.a.	MAIWD DAES, Nutrition Section; FAO Malawi; GIZ, Feed the Children; DAECCs; ASPs; DNCCs; ANCCs	n.a.
13	Feed the Children, Aziwa Christian School	Provide supplementary feeding programme to the needy	Care group members	n.a.	Feed the Children, IFFN, GIZ	n.a.

No.	Name of organization implementing	Nature of programmes	Type/category of clients served	Number of such interventions in a year and reach (number of clients directly reached)	Partners in these interventions	Capacity development activities for EAS to implement these programmes
14	Aziwa Christian School	Organize school feeding programmes	School children	n.a.	Feed the Children, Adziwa Christian School, Mary Meals, Peanut Butter and Jesus	n.a.
15	FAO, MAIWD DAES	Promoting small stock production	Farmers	n.a.	MAIWD DAES, Nutrition Section; FAO Malawi; GIZ; DAECs; ASPs; DNCCs; ANCCs	n.a.
16	GIZ	Promote irrigation farming to ensure availability of diversified food throughout the year	Farmers	n.a.	MAIWD DAES, Nutrition Section; FAO Malawi; GIZ; DAECs; ASPs; DNCCs; ANCCs	n.a.
17	Perisha, MAIWD DAES	Promote production of orange flesh sweet potatoes and consumption of orange maize	Farmers, care groups	2	Perisha	n.a.

SOURCE: Authors' own elaboration.

TABLE 6 KEY ISSUES RELATED TO FINANCING NUTRITION

No.	Key issues related to financing nutrition interventions	Responses, by number of organizations			
		<i>Inadequate</i>	<i>Adequate</i>	<i>More than adequate</i>	<i>Don't know</i>
	<i>Quantum of funds</i>				
1	Is the funding for nutrition interventions in your organization adequate?	6	2	0	0
	<i>Access at the right time</i>				
2	Are the funds to organize nutrition interventions...	0	4	4	0
	<i>Sustainability of funding</i>				
3	Is the funding regular, with little fluctuation over the years?	4	3	0	1

SOURCE: Authors' own elaboration.

3.2.4 Investments to address nutrition

In general, funding for the nutrition interventions as shown in Table 5 was inadequate, except in two organizations (FAO and GIZ). For the ministry, university, IFFN, Perisha and Adziwa, they depend on projects and grants from development partners. Funds are inadequate in the Feed the Children project due to cuts by the funding organization. In terms of availability, Table 6 shows that funds are seldom available in four organizations and always available in the other four. Organizations that depend on other projects or grants/donations explained that funding was not available when needed. As such, funding was highly fluctuating and unreliable.

Responses from focus group discussions with agricultural extension and nutrition coordinating structures generally indicated that funds were inadequate and that they depended on NGOs and projects for operational funds, without which operations came to a standstill.

3.2.5 Human resources deployed to address nutrition

Four out of the eight institutions consulted reported that they did not have adequate staff (Table 7). Those four institutions are MAIWD DAES, LUANAR (both NRC and BC), Feed the Children and IFFN. Nutrition is an important component of MAIWD DAES, which has a Nutrition section, and for LUANAR at both NRC and BC, with both undergraduate and postgraduate programmes. As a government organization, DAES has a central role in NSA. It is supposed to provide leadership in terms of providing policy guidance to all other players and therefore needs adequate staff. A shortage of staff has also affected LUANAR, where nutritionists are trained. Some of the organizations consulted require as much as 50 percent more staff than their current levels. Both public and private institutions experienced staff shortages. In some cases, this was caused by financial constraints affecting the capabilities of the institutions and organizations. In addition to staff shortages, some organizations mentioned the need for further training at the MSc or PhD levels. This was a crucial issue for the training institution, which needs well-trained and specialized personnel to be able to provide the necessary pre-service training for nutritionists. In general, there is a need for proper training on NSA. People assume that because their programmes are agricultural-based, what they are doing is NSA, but they are not conversant in the subject.

TABLE 7 HUMAN RESOURCES DEPLOYED IN NUTRITIONAL PROGRAMMES

No.	Name of organization	Type/ category of staff/level	Qualifications	Role	Total number of staff	% of female staff	Jurisdiction/ area coverage
1	MAIWD DAES *	Professional officers	BSc/MSc in nutrition and/ or extension and rural development	Nutrition education and nutrition surveillance	5	20%	National
2	GIZ	Professional officers	BSc/MSc	2 nutritionists, 2 agri-economists (1 in biology and 1 in public health and pharmacy)	6	33%	4 national, based in Lilongwe and 2 at district level
3	Feed the Children	Technical officers	Diplomas	Health and nutrition supervisors	21	24%	District-level, need 10 more staff
		Professional officers	BSc	1 management; 1 director of programmes; 1 director of M&E; specialists in nutrition, livelihoods and water; and sanitation, zone managers	9	22%	National and regional levels

* There is no specific staff on nutrition in other departments within the ministry.

No.	Name of organization	Type/ category of staff/level	Qualifications	Role	Total number of staff	% of female staff	Jurisdiction/ area coverage
4	LUANAR-NRC	Technical officer	Diploma	n.a.	0	0	n.a.
		Lecturers (professionals)	1 PhD, 1 MSc and 3 BSc	Lecturers, conducting research	5	80%	College level. Need more staff but budgetary constraints limit their ability to recruit more
	LUANAR-BC	Technicians	BSc degree holders	Laboratory work	1	0	Bunda College. Need 2 more staff at BSc level
		Professional officers	MSc degree holders	Lecturers – teaching and research	3	33%	Bunda College
		Professional officers	PhD degree holders	Lecturers – teaching and research	3	33%	Bunda College. Need 3 more staff
	5	IFFN	Professional officers	2 MSc and 4 BSc	Training, M&E, extension, administration, public relations	6	33%
6	Adziwa Christian School	Technician	Certificate holders	Teachers	22	91%	School
		Technical officers	3 diploma holders	Teachers	3	33%	School, community
		Professional officers	3 undergraduate degree holders (only 1 with nutrition qualifications)	Health assessments, provide treatment, teaching basic health and nutrition to teachers and other staff	3	33%	School, community. Feel that they have adequate staff but need more knowledge, especially ability to work with others. Short courses can address need.
7	FAO Malawi	Professional officers	MSc holders	Nutritionists	10	50%	District level
		Professional officers	MSc degree holders	District coordinators	10	50%	District level
8	Perisha Agro and Packaging	Technician	Certificate	Accounts	1	0	Lilongwe
		Professional officers	BSc degree holders	Marketing and commercial officer	1	0	Lilongwe
		Professional officers	MSc degree holders	Executive director	1	100%	Lilongwe

SOURCE: Authors' own elaboration.

3.2.6 Organizational challenges in addressing nutrition

a) Resources

Most of the organizations (five out of the eight) have inadequate vehicles to carry out their operations. However, all but one organization have a mechanism for hiring vehicles. Four of the organizations have field staff with motorbikes, except one. Fuel allowance is included in cash or kind. Grassroots field staff from the government use bicycles. Those NGOs and projects without field staff usually work through the government staff.

b) Information, communication and training materials

We listed different types of information, communication and educational (ICE) materials under print and mass media and asked the key informants to indicate the frequency of their use on a scale of 0–4. Participants were allowed to list other materials that were not on our list but that were being used at their organizations (Section C in Table 8). Hence, these were mentioned by specific organizations only. The results in Table 8 indicate that the organizations use various types of ICE materials with varying degrees of frequency. The most frequently used printed materials were brochures, posters and flip charts. Wall calendars and advertisements are more rarely used and none of the organizations uses billboards because of the high cost involved. In terms of mass media, the radio is the medium most frequently used. Also used, though not frequently, are audio and video clips as well as mini dramas. Rarely used are newspapers, magazines and television, with no reasons given. Literacy and cost could be among the contributing factors to their infrequent use. Nine other materials were mentioned, and T shirts/chitenje (fabric) and radios were mentioned by all eight organizations, though frequency of use varied.

3.2.7 Partnerships

Each organization consulted worked in partnership with other organizations when implementing their nutrition programmes (Table 9). On average, each organization worked with six others. FGDs with the nutrition structures in the district and area levels reflected this extent of collaboration and coordination. Partnerships were between public, private, development partners and non-governmental organizations. The purposes of the partnerships included the following: financial and technical support, joint planning and implementation of programmes, collaboration on various activities, policy guidance, as well as training and capacity building. The partnerships were generally very beneficial in that they resulted in better implementation of programmes. The major challenges of the partnerships were:

1. Inadequate financial resources to facilitate joint implementation of programmes as well as ensuring functional agricultural extension and nutrition structures.
2. In some cases, organizations work in competition for resources and visibility.
3. Partnerships were project-based and therefore unstable and unsustainable.
4. In some cases, there were competing interests between partners.
5. There is miscommunication of messages by some organizations.
6. Duplication of efforts continue to exist at the grassroots level.

Although collaboration was evident at all levels, the following were suggestions to improve existing partnerships:

1. There is a need to involve the private sector through appropriate mechanisms that ensure transparency and avoid conflicts of interest. Often this is thought of when organizations are in need of financial support. However, private-sector organizations produce seed and process foods, among other food system activities and, in such roles, they are key to address nutrition issues.
2. Coordinating structures should be proactive in curbing the duplication of efforts at the grassroots level.
3. There is a need to strengthen media involvement and not only during events. The media should have a better understanding of nutrition and its importance.
4. There is a need for organizations to do more to build the capacity of public field agricultural extension staff, as many organizations work with them with high expectations.
5. There is a need for universities to be involved in nutrition coordination structures as technical experts, even at the district level.

TABLE 8 FREQUENCY OF USE OF INFORMATION, COMMUNICATION AND EDUCATIONAL MATERIALS

No.	ICE materials	Frequency of use					Total	Reasons for no or limited use
		4 Always	3 Often	2 Sometimes	1 Rarely	0 Never		
A	Printed materials							
1.	Brochures (including leaflets/pamphlets)	3	3	1	1	0	8	-
2.	Posters	2	2	0	2	2	8	-
3.	Wall calendars	2	0	0	3	3	8	-
4.	Billboards	0	0	0	0	8	8	Costly
5.	Advertisements (posted on public transport vehicles, for example)	0	2	0	0	6	8	-
6.	Flip charts	5	2	0	0	1	8	-
B	Mass Media							
1.	Audio clips	2	2	2	0	2	8	-
2.	Video clips	2	2	0	3	1	8	-
3.	Mini-dramas	2	3	0	1	2	8	-
4.	Television	1	0	2	3	2	8	-
5.	Radio	5	2	1	0	0	8	-
6.	Newspapers	1	1	1	1	4	8	-
7.	Magazines	0	0	2	1	5	8	-
8.	Giveaways (seeds/planting materials)	0	4	2	1	1	8	-
C	Others							
1.	T-shirts/fabric/radios	1	2	1	2	2	8	
2.	Counselling cards	0	1	1	0	0	2	
3.	SMS	-	1	1	-	-	2	
4.	Demonstrations	-	1	-	-	-	1	
5.	Pass-on scheme	-	1	-	-	-	1	
6.	Open nutrition days	-	1	-	-	-	1	
7.	Child health weeks	-	1	-	-	-	1	
8.	Talking walls	-	1	-	-	-	1	
9.	Banners	1	-	-	1	-	2	

SOURCE: Authors' own elaboration.

TABLE 9 NATURE OF COLLABORATION FOR IMPLEMENTING NUTRITION

No.	Organization	Name of partner organization	Purpose of partnership	Challenges in partnership
1	MAIWD, DAES	FAO	World Food Day and technical support	Project-based and therefore not stable and not sustainable
		UNICEF	Finance and technical support	Project-based and therefore not stable and not sustainable
		SANE	Finance and technical support	Project-based and therefore not stable and not sustainable
		Other departments in the Ministry of Agriculture, Irrigation and Water Development (crops, livestock, irrigation, research and planning)	Collaboration: The Planning Department is a partner in budgeting, report writing	None
		DNHA	-	None
	MAIWD, DARS	International Center for Tropical Agriculture, INVIGRO (industrial hemp), International Crops Research Institute for the Semi-Arid Tropics, International Institute of Tropical Agriculture, CIP and many NGOs	For collaborative research and dissemination. CGIARs are not mandated to do research on their own, they use government mechanisms	Competing interests at times
2	GIZ	DNHA	Policy guidance and coordination	None
		United Purpose	Implementing partner	None
		MAIWD	Collaboration	None
		CARE International	Implementing partner	None
		UNICEF	Collaboration	None
		FAO	Collaboration	None
		Department of Disaster Management Affairs	Nutrition-sensitive social protection	None
		Donor groups	Collaboration	None

No.	Organization	Name of partner organization	Purpose of partnership	Challenges in partnership
3	Feed the Children	Ministry of Health	Policy guidance and implementation	Resource limitation
		MAIWD	Policy guidance and implementation	Resource limitation
		Department of Social Welfare	Policy guidance and implementation	Resource limitation
		Feed the Future (agriculture diversification project)	Mini drip kits	None
		Afikepo projects	Agriculture	None
		DNHA	Policy guidance and implementation, coordination committees	None
4	LUANAR-NRC	GIZ	Green Innovation Centre and in-service training support	Staff turnover
		Irish Aid	Soya plant	None
		FAO	Short courses	None
		DNHA	Coordination committees like DNCC, ANCC, etc., and in-service training	None
		MAIWD	Agricultural shows, World Food Day, in-service training	None
	LUANAR-BC	UNICEF	Conduct training on infant and young child feeding, SMART (standardized monitoring and assessment of relief and transitions) surveys	None
		Irish Aid	Implementation of nutrition projects	None
		DHNA	Short courses, project evaluations, development of ICE materials	Inadequate finances
		Nottingham University	Research	None
	5	IFFN	LUANAR	Technology generation, source of knowledge
GIZ			-	None
Maldeco			Provide facilities for farmer training	None
MAIWD (Fisheries Department)			Lobbying	None

No.	Organization	Name of partner organization	Purpose of partnership	Challenges in partnership
6	Adziwa Christian School	Ministry of Health	Health-related issues	None
		Teeth Savers	Oral care	None
		Peanut Butter and Jesus (PB&J)	Supply of ready-to-use therapeutic foods (peanut butter-based)	None
		African Bible College Hospital	Treatment of school children	None
		US Embassy (Feed the Future)	School feeding programme	None
		Girls Empowerment Network	Nutrition education	None
		Family Planning Association of Malawi	HIV& AIDS Education	Some of the messages they include in the education programmes are not in line with the school policies
		World Food Programme	School feeding programme	None
		Gift of Givers	School feeding programme	None
7	FAO Malawi	UNICEF	Implementation of nutrition programmes	Competition, especially those in Kulima programme
		DAECC	Implementation of nutrition programmes	None
		DNHA	Implementation of nutrition programmes	None
		Save the Children	Implementation of nutrition programmes	None
		GIZ	Implementation of nutrition programmes	None
		Action Aid	Implementation of nutrition programmes	None
		Kulima Consortium under Self-Help International	Implementation of nutrition programmes	Overburdening agricultural extension development officers, competition
8	Perisha Agro and Packaging Enterprise	GIZ	Training	None
		Feed the Future	Equipment support	None
		Harvest Plus	Collaboration	None
		CIP	Collaboration	None
		Action Aid	Collaboration	None
		MAIWD	Collaboration	None
		FAO	Training	None

SOURCE: Authors' own elaboration.

3.3 Individual level

3.3.1 Technical and functional capacities

Using FGDs and structured questionnaires, the assessment of field staff capacities focused on three areas:

- capacities for technical knowledge on nutrition among staff at different levels;
- capacities that enable staff to plan, implement and monitor programmes to achieve nutrition impact (functional); and
- other capacities that need strengthening/development.

As noted above, most nutrition activities are implemented in partnership. The field staff assessed were involved in the implementation of some of the activities/projects by six of the eight organizations in one way or the other. Namely, these field staff were not involved in the implementation of the Adziwa Christian organization and Perisha Agro and Packaging Enterprise, mainly because of the nature of their activities (school feeding programmes and food processing, respectively). It is typical of NGOs/projects in Malawi to collaborate with field staff from different government departments for implementation at district and lower levels (Masangano and Mthinda, 2012; Ragasa and Niu, 2017). Thus, they may have supervisory staff at district levels, but none or maybe one or two at the area level. This is why the coordinating structures are so important at the district and area levels.

The results of the assessment in Table 10 show that 38 percent of the participants indicated that their existing technical knowledge on nutrition is adequate for addressing nutrition or promoting nutrition-sensitive agriculture in EAS. On the other hand, 46 percent said that their capacity needs strengthening. Only 16 percent said their capacity needs to be developed. The frequencies were slightly higher for functional capacities, where 45 percent reported that their capacity was adequate for them to plan, implement and monitor programmes to achieve nutrition impact (Table 11). In addition, 46 percent said their functional capacity needs strengthening and only 9 percent said it needs to be developed.

TABLE 10
CAPACITIES (TECHNICAL KNOWLEDGE ON NUTRITION) TO ADDRESS NUTRITION AMONG STAFF AT DIFFERENT LEVELS

(Numbers in columns 3, 4 and 5 indicate the percentage of respondents choosing this answer, rounded to the nearest whole number. Column 6 indicates the mean score, where “needs to be developed” = 1, “needs strengthening” = 2 and “adequately available” = 3.)

No.	Competency categories/ description of capacity	Level of capacity (frequency and mean score)			
		Needs to be developed	Needs strengthening	Adequately available	Mean score
1	<i>Importance of nutrition</i>				
	Is convinced that nutrition is important, and motivated to take action at personal, family/ community and professional levels (attitude/ perspective)	2	54	45	2.4
2	<i>Production diversity (as economically and agro-ecologically appropriate)</i>				
	Can identify context-appropriate trees, crops and livestock that can meet nutrition needs of specific/targeted communities and households	9	52	39	2.3
	Can provide examples of farm products (including cultivated and wild plants, animal-source foods, and fish) which contribute to improved dietary diversity, and are appropriate for the market context	9	39	52	2.4

No.	Competency categories/ description of capacity	Level of capacity (frequency and mean score)			
		Needs to be developed	Needs strengthening	Adequately available	Mean score
3	<i>Diversity of diets (from both household production & market access)</i>				
	Can identify why and promote a diversity of foods that contribute to health and nutrition	4	52	45	2.4
	Understands the nutritional value of specific foods and food groups, and the importance of consuming a variety of foods	5	34	61	2.6
4	<i>Year-round access to diverse, nutritious foods</i>				
	Understands the relationship between seasonal food availability, fluctuations in income, food and nutrition security, and health	7	34	59	2.5
	Can engage communities in planning for better food access to nutritious foods	7	25	68	2.6
5	<i>Nutrition for all</i>				
	Is sensitized to people's different nutrition needs, determined by sex, age, activity level, health status, pregnancy and lactation	5	50	45	2.4
	Is able to identify and address the needs of the most nutritionally vulnerable	9	48	43	2.3
6	<i>Nutrition-friendly agricultural practices</i>				
	Can identify and promote practices that improve soil health: intercropping, crop rotation, applying organic materials, using limited tillage methods	21	39	39	2.2
7	<i>Responsible agrochemical use</i>				
	Knowledge of integrated pest management options – understands there can be a range of (sometimes nonchemical) options to control any given pest, improvements in product choice, agrochemical preparation and application practices, timing of application, and consumption of treated produce	43	45	13	1.7
8	<i>Gender-responsive agricultural labour practices</i>				
	Identifies the health- and nutrition-related problems that result from inappropriate labour practices for perinatal & lactating women	23	57	20	2.0
	Can promote alternative activities and practices based on biological limitations and gender-related tasks	27	52	21	1.9
9	<i>Reducing post-harvest losses for homeconsumption and for markets</i>				
	Describes the basic causes of post-harvest losses during harvest, storage and preparation at home	5	34	61	2.6

No.	Competency categories/ description of capacity	Level of capacity (frequency and mean score)			
		Needs to be developed	Needs strengthening	Adequately available	Mean score
	Lists, understands, describes, and discusses simple, low-cost techniques/technologies that minimize post-harvest losses	14	48	38	2.2
	Analyses and evaluates techniques/ technologies at home that are more appropriate for minimizing post-harvest losses	13	59	29	2.2
	Applies techniques/technologies that minimize post-harvest losses and maximize storability of foods	14	54	32	2.2
10	<i>Better agricultural practices for better WASH</i>				
	Encourages people regarding the importance of adopting agricultural practices that reduce the risk of infection	9	52	39	2.3
11	<i>Hygiene in food preparation, caregiving</i>				
	Reinforces “essential hygiene actions”, paying particular attention to interactions between agriculture, hygiene and health and nutrition	14	38	48	2.3
12	<i>Irrigation and multiple use water services</i>				
	Recognizes the importance of access to safe, accessible and adequate water for both domestic and agricultural purposes	11	43	46	2.4
	Is able to help reduce the risk of vector-borne and faecal-oral diseases and illnesses resulting from certain irrigation practices	25	45	30	2.1
13	<i>Livestock management, clean water, sanitation and hygiene</i>				
	Communicates the disease risks posed by specific livestock and practices in a given locale (if known), and promotes alternative actions and preventive measures	38	41	21	1.8
14	<i>Market orientation</i>				
	Is able to identify marketing opportunities for nutritious products that will be affordable for many consumers	21	54	25	2.0
	Analyses market opportunities for nutrition-sensitive value chains	38	48	14	1.8
	Estimates capital required and return on investment for investments in nutrition-sensitive value chains	34	48	18	1.8
	Combined mean response rate frequency	16.3	45.7	38.0	2.2

SOURCE: Authors' own elaboration.

TABLE 11 CAPACITIES THAT ENABLE STAFF TO PLAN, IMPLEMENT AND MONITOR PROGRAMMES TO ACHIEVE NUTRITION IMPACT

Numbers in columns 3, 4 and 5 indicate the percentage of respondents choosing this answer, rounded to the nearest whole number. Column 6 indicates the mean score, where “needs to be developed” = 1, “needs strengthening” = 2 and “adequately available” = 3.)

No.	Competency categories/ Description of capacity	Availability of capacity (mean frequency and score)			
		Needs to be developed	Needs strengthening	Available adequately	Mean score
1	Plans, monitors and designs appropriate nutrition programmes	11	55	34	2.2
2	Incorporates explicit nutrition objectives into agricultural projects, programmes and policies	18	66	16	2.0
3	Assesses the context to identify nutritional problems and groups most at risk	11	48	41	2.3
4	Do no harm: avoids unintended negative consequences of certain practices, technologies and income-generating strategies can have adverse effects on the diversity of production, home consumption vs. selling, and increased labour, time, and energy demands (especially for women) making nutrition improvements more difficult	14	59	27	2.1
5	Networks and partners with representatives of other organizations/agencies involved in nutrition	9	32	59	2.5
6	Works in multi-organizational and multisectoral teams	9	25	66	2.6
7	Communicates and advocates for changes in policies and institutions by engaging decision makers on aspects related to nutrition	20	50	30	2.1
8	Increases equitable access to productive resources	16	48	36	2.2
9	Targets the most vulnerable groups, including smallholder farmers, women and poor/food-insecure households	2	45	54	2.5
10	Leadership capacity – inspires and motivates others	7	36	57	2.5
11	Facilitates group dynamics, process, meetings and discussions	2	30	68	2.7
12	Facilitates conflict and alternative dispute resolution	2	52	46	2.4
13	Creates, participates in and leads teams	4	40	56	2.5
14	Mediates, negotiates and solves disputes	7	52	41	2.3
	Combined mean response rate frequency	9.3	45.6	45.1	2.3

SOURCE: Authors' own elaboration.

This trend of slightly higher scores for functional competencies was also observed in the combined mean scores for individual items, with 2.2 for technical and 2.3 for functional competencies (Tables 10 and 11). None of the items in the functional competencies category had a score below 2, while there were five items below 2 for technical knowledge on nutrition. Items where the mean score was below 2 include responsible agrochemical use, ability to promote alternative activities and practices based on biological limitations and gender-related tasks, livestock management, clean water, sanitation and hygiene, analysis of market opportunities for nutrition-sensitive value chains, and estimates of capital required and return on investment for investments in nutrition-sensitive value chains (market orientation). These are the same areas where frequencies for “need to be developed” were highest. The slightly higher scores for functional capacities are not surprising, as most of the participants were basically extension workers. This result supports the need to train extension workers who disseminate nutrition messages through the technical knowledge on nutrition rather than via functional capacities.

Focus group discussions provided extensive examples of how organizations in the agricultural extension and nutrition structures implement each of the assessment items. The examples revealed the extent to which they understood each of the assessment items. Examples were flowing freely during the discussions. The results from the quantitative data therefore reveal the importance of an individual assessment, as discussions in groups could easily blur the knowledge inadequacies of others. On the other hand, some key informants in the detailed organizational assessment wanted a clear understanding of what “nutrition-sensitive agriculture” was all about. Some questioned whether this term was necessary at all when agriculture is the source of nutrition. This group wanted a clear definition of what the term means, and not to mix it with general nutrition. The issue suggests the need for managers and supervisors to have a broad, as well as a conceptual, understanding of NSA. The assessment also included some challenges.

1. The individual assessment was done with different levels of field staff, but the tool did not include demographic data. As such, the results could not be disaggregated by age, gender, levels, qualification or even by sector.
2. High-level management staff were not assessed with the assumption that with their high-level qualifications (masters and PhD degrees) this would not be necessary
3. Some items were too technical for field staff, as they struggled to understand the questions before they could respond. To reduce this problem, we walked through the questionnaire with them as they completed it, explaining each item.
4. Some questions were not in self-assessment mode. They were written as if the facilitator was assessing the individuals.
5. Participants commented that important items, such as those concerning HIV and AIDS, were not included. They suggested the need to closely align the questions with local key messages.
6. The assessment was poorly timed, as most field staff were busy with distribution of farm input subsidy coupons.
7. The selection of districts was based on financial limitations rather than on objective selection criteria.

4 CONCLUSIONS

The nutrition situation in Malawi is well documented and information is easy to access. The policy environment is favourable with a number of policies in place at the national and sectoral level to address nutrition challenges, as Malawi's nutrition status is poor and food insecurity common. However, this policy commitment is not matched with the necessary levels of financial and human resource investments on the ground, making implementation of these policies limited. As nutrition is a cross-cutting issue, there are many organizations involved in addressing nutrition problems. Recognizing this fact, the country has introduced coordinating structures for both agricultural extension and nutrition. In the districts we visited, the coordinating structures were functional. However, it is well-known that functionality of the structures varies from district to district and depends on the commitment of the individual officers as well as the organizations involved. This calls for continued efforts to strengthen these structures to ensure they are functional. Although programme coordination was evident at the field and national levels, organizations working in nutrition are not well documented. The stakeholder mapping from this study therefore provides much needed data. However, we believe there are many more organizations that did not complete our questionnaire. As such, this work should be considered as work in progress. There is a need for the national coordinating structures to continue this effort. Organization capacity assessment has revealed a number of things about the mandate, implementation of nutrition programmes, investments in nutrition and partnerships, and the challenges in nutrition interventions. In this assessment, we found a diverse group of stakeholders in nutrition – mainly from the agriculture sector, but also a few from the health and education sectors. Not all these organizations have nutrition spelled out in their mandates. However, nutrition was a key component in all the organizations, regardless of whether they have it in their mandate or not. Nutrition appeared in the organization's strategic objectives or in some specific departments within them. It is therefore important that this role is mentioned in strategic and programmatic documents of the organizations, so that it is not overlooked.

The organizations involved in nutrition in Malawi implement diverse nutrition programme activities, including nutrition education, promotion of production diversification, promotion of dietary diversification, supplementary feeding, school feeding, and irrigation farming. They target a range of groups, including farmers, farmer groups, women, infants and young children, youth and pregnant women.

Investments in nutrition activities varied from one organization to another. However, investment figures were hard to get, especially in programme-related interventions. It was easier to get the figures in project-related interventions. It was clear, however, that nutrition activities are not well resourced in most organizations. This affects the effectiveness of the coordinating structures when implementing joint nutrition programmes at the field level. Implementation tends to depend on project funding, which is not sustainable. In addition, levels of investments affect the number of staff and mobility in these organizations.

The assessment has revealed that partnership in implementing nutrition activities is well established, and each organization has a number of partners to work with for different reasons. They collaborate in policy formulation and capacity building. The challenges faced by these partnerships include limited financial resources, competition for resources and visibility, dependence on projects, competing interests and duplication of efforts.

Suggestions to improve existing partnerships were as follows.

1. There is a need to involve the private sector through appropriate mechanisms that ensure transparency and avoid conflicts of interest. Often this is thought of when organizations are in need of financial support. However, private-sector organizations produce seed and process foods, among other food system activities and, in such roles, they are key to address nutrition issues.
2. Coordinating structures should be proactive to curb the duplication of efforts at the grassroots level.
3. There is a need to strengthen media involvement, and not only during events. The media should have a better understanding of nutrition and its importance.



4. There is a need for organizations to do more in building the capacity of public field agricultural extension staff, as many organizations work with them with high expectations.
5. There is a need for the universities to be involved in the nutrition coordination structures, even at district level, as technical experts.

Suggestions to address individual capacity gaps

- Provide training to build capacity in NSA as a concept.
- Strengthen staff capacity in specific areas of NSA, such as incorporating explicit nutrition objectives into agricultural projects, programmes and policies; responsible agrochemical use; promotion of alternative activities and practices based on biological limitations and gender-related tasks; livestock management; clean water; sanitation and hygiene; analyses of market opportunities for nutrition-sensitive value chains; and estimation of capital required and return on investment for investments in nutrition-sensitive value chains (market orientation).

REFERENCES

- Chiweza, A.L.** 2010. *A Review of the Malawi decentralisation process: lessons from selected districts*. Lilongwe, Ministry of Local Government and Rural Development and Concern Universal.
- FAO.** 2015a. *Second International Conference on Nutrition (ICN2). Report of the Joint FAO/WHO Secretariat on the Conference*. Rome. (also available at www.fao.org/3/a-i4465e.pdf).
- FAO.** 2015b. *Country fact sheet on food and agriculture policy trends*, Rome (available at <http://www.fao.org/3/a-i4491e.pdf>).
- Global Forum for Rural Advisory Services (GFRAS).** 2012. *The "new extensionist": roles, strategies, and capacities to strengthen Extension and Advisory Services*. Lausanne, Switzerland, GFRAS (also available at www.g-fras.org/en/knowledge/gfras-publications.html?download=126:the-new-extensionist-position-paper).
- GFRAS.** 2019. *Global learning needs assessment for integrating nutrition objectives into agricultural/EAS programmes and policies*. Lausanne, Switzerland, GFRAS.
- Government of Malawi (GoM).** 2006. *The District Agricultural Extension Services System implementation guide*. Ministry of Agriculture, Irrigation and Water Development, Lilongwe.
- GoM.** 1998. *Malawi Decentralisation Policy*. Decentralisation Secretariat, Lilongwe.
- GoM.** 2013. *National Youth Policy*. Ministry of Youth and Sports, Lilongwe.
- GoM.** 2014. *Baseline survey report of community based nutrition programs in Malawi 2013*. Department of Nutrition, HIV and AIDS, Office of the President and Cabinet, Lilongwe
- GoM.** 2015a. *National Gender Policy*. Ministry of Gender, Children, Disability and Social Welfare, Lilongwe.
- GoM.** 2015b. *National Food Insecurity Response Plan 2015/2016*. Lilongwe.
- GoM.** 2016. *National Agricultural Policy*. Ministry of Agriculture, Irrigation and Water Development, Lilongwe.
- GoM.** 2017. *The Malawi Growth and Development Strategy (MGDS) III: building a productive, competitive and resilient nation*. Ministry of Finance, Economic Planning and Development, Lilongwe.
- GoM.** 2018a. *National Multi-Sector Nutrition Policy 2018-2022*. Ministry of Health, Department of Nutrition, HIV and AIDS, Lilongwe.
- GoM.** 2018b. *Agriculture Sector Food and Nutrition Strategy 2018-2023 (draft)*. Ministry of Agriculture, Irrigation and Water Development, Lilongwe.
- GoM.** Undated. *National School Health and Nutrition Strategic Plan. National Health and Nutrition Response in the Education Sector 2009-2018*. Ministry of Education, Science and Technology, Lilongwe.
- Japan International Cooperation Agency (JICA).** 2019. *Sector position paper: agriculture*. Malawi office. JICA, Lilongwe.
- Jones, D.A., Shrinivas, A. & Bezner-Kerr, R.** 2014. Farm production diversity is associated with greater household dietary diversity in Malawi: findings from nationally representative data. *Food Policy*, 46:1-12.
- Masangano, C. & Mthinda, C.** 2012. *Pluralistic extension system in Malawi*. IFPRI discussion paper 01171. April 2012. Washington, DC. International Food Policy Research Institute. (also available at www.ifpri.org/sites/default/files/publications/ifpridp01171.pdf).
- Nandi, R. & Gowdru, N.V.** 2018. Agricultural extension through nutrition sensitive lens: potential of fruits as a source of nutrition. *Indian Journal of Agricultural Sciences* 9(5): 945-950. September-October. New Delhi.
- National Statistical Office (NSO) [Malawi] & ICF International.** 2016. *Malawi Demographic and Health Survey 2015-16. Key Indicators Report*. Zomba, Malawi, and Rockville, Maryland, USA.
- NSO [Malawi] and ICF Macro.** 2011. *Malawi Demographic and Health Survey 2010*. Zomba, Malawi, and Calverton, Maryland, USA.

- NSO [Malawi] & Community Health Sciences Unit [Malawi], Centers for Disease Control and Prevention & Emory University.** 2016. *Malawi Micronutrient Survey 2015-16. Key Indicators Report.* Atlanta, GA, USA.
- Ragasa, C. & Niu, C.** 2017. *The state of agricultural Extension and Advisory Services provision in Malawi: insights from household and community surveys.* MaSSP technical report. International Food Policy Research Institute, Washington, DC.
- Rasmussen, P. E.** 2018. *2018 African economic outlook country note for Malawi.* African Development Bank, Abidjan, Côte d'Ivoire.
- Strengthening Agricultural and Nutrition Extension (SANE).** 2019. *Agriculture the Source of Nutrition.* Paper presented at the 2019 Malawi Forum for Agriculture and Advisory Services Extension Week, Lilongwe.
- World Food Programme (WFP).** 2012. *Comprehensive food security and vulnerability analysis (CFSVA) and Nutrition Assessment.* Malawi.
- World Food Programme (WFP).** 2019. *Malawi Country Strategic Plan (2019–2023).* Executive Board. First Regular Session. Rome (also available at https://docs.wfp.org/api/documents/WFP-0000101928/download/?_ga=2.237751430.704133931.1611164106-741715934.1607617496).
- World Bank.** 2019. *Malawi economic monitor: charting a new economic course* [online]. Feature Story. [Cited 28 June 2020] (available at www.worldbank.org/en/news/feature/2019/06/25/malawi-economic-monitor-charting-a-new-economic-course).
- World Health Organisation (WHO).** 2014. *Noncommunicable Diseases Country Profiles – Malawi* [online]. [Cited 28 June 2020]. www.who.int/nmh/countries/mwi_en.pdf

Annex 1. Comments on the methodology and suggestions for improvement

- Collect demographic data in the assessment tools.
- Continue with assessment of staff capacities at the different levels: field, middle and senior.
- Simplify some of the questions in the self-assessment capacity tool.
- Ensure questions are asked in self-assessment mode.
- Ensure local key nutrition messages are included and asked in self-assessment mode.
- Ensure representativeness in the selection of districts and organizations for capacity assessment.

Annex 2. Stakeholder mapping questionnaire

Stakeholders involved in nutrition

(performing key extension and advisory service [EAS] roles)

1. Name and address of your organization

Name

Organization

Address

Website (if available)

Social media (if available)

City/Town/district

Email address

Phone number

2. What is the type of your organization?

- Government or ministry
- Public research institution
- Semi-autonomous government organization (parastatal)
- University
- NGO
- Farmer-based organization (FBO)
- Private-sector organization or firm
- Project
- Other (please specify)

3. What are the key nutrition-related roles performed by your organization?

- Government or ministry
- Agricultural diversification
- Food processing and preservation
- Seed diversification /multiplication
- Indigenous biodiversity
- Micronutrient Supplementation
- Disease prevention/management
- Maternal, Neonatal & Child Health
- Nutrition Education
- WASH
- Social protection
- Nutrition governance
- Other (please specify)

4. What is the geographical focus of your organization (mandate)?

1. National (all over the country)
2. Regional (mention these)
3. District (mention these)
4. Traditional Authority (mention these)
5. Other (please specify)

5. What type of clients (target groups) do you serve?

1. All
2. Farming households
3. Youth/adolescents
4. Female farmers
5. Pregnant/lactating women
6. Infants/young children (below 5 years)
7. Those having ailments/or sick
8. School children
9. None
10. Other (please specify)

6. What are the delivery channels, i.e. the mechanisms used to reach the target groups with each of the key nutrition-related role mentioned above?

1. Hospitals/clinics
2. Health centres
3. Nurses
4. Health Educators
5. Community Health Workers
6. Government Nutrition Officers
7. Agricultural extension staff
8. Nursery schools
9. Primary schools
10. Community leaders
11. Community-based organizations
12. Farmers' organizations
13. NGO staff
14. Farmers
15. Women/Mother support groups
16. Farmers' organizations
17. Farmers
18. Distributors
19. Supermarket/shops
20. NGO staff
21. Media (TV, radio, SMS, etc.)
22. Private sector
23. Other (please specify)

Annex 3. Organizational-level capacity assessment interview guide

Global capacity needs assessment

Organization-level capacity assessment tool

OBJECTIVE OF THE ASSESSMENT

To identify and understand capacity gaps, needs and obstacles to integrate nutrition-related objectives into agricultural programmes and policies.

1. Organizational mandate with respect to nutrition

- What is the name of your organization?
- Is nutrition one of your core mandate?
- Is this reflected in the vision, mission, objectives or functions of your organization?
- If yes, at what level is it stated and how?

2. Programmes/activities addressing nutrition

- What programmes or activities on promoting nutrition do you implement?

3. Financial Investments for addressing Nutrition

- What level of resources (equivalent USD/year) are invested in nutrition programmes every year?
- Exact allocation
- Allocation as a % of the organization's total budget?
- Are the resources adequate to meet your nutrition mandate? In other words, are limited finances adversely affecting your interventions? If so, how? (Information could be collected from the table given below)
- What resources are needed to further strengthen your nutrition interventions and on which activities could these additional resources be spent?

4. Human Resources deployed in nutritional interventions

- Please indicate the following for each type/category/level of staff (use the table below to completing the information):
 - Number of staff
 - Their qualifications
 - Their role
 - Percentage of female staff
 - Their jurisdiction or area of coverage

TABLE 1 HUMAN RESOURCES DEPLOYED IN NUTRITIONAL PROGRAMMES

No.	Type/category of staff/level	Qualifications	Role	Number of staff	% of female staff	Jurisdiction/ area coverage
1	Technicians					
2	Technical officers					
3	Professional officers					
4						
5						

SOURCE: Authors' own elaboration.

5. Constraints in programme delivery

What constraints does your organization experience in the delivery of nutrition programmes?

5.1 Staff adequacy:

- i. Do you have adequate staff that can effectively design/implement/supervise your nutritional interventions? Yes /___/ No /___/
- ii. If No, what additional staff does your organization need (at which levels)?

5.2 Staff capacity development

(Kindly note that we are exploring this in greater detail at later stage when we deal with capacities at the individual level)

The focus in this section is to explore staff capacities to deliver nutrition programmes:

- i. Do the staff have adequate technical knowledge of nutrition?
- ii. If not, in what areas do the staff need more technical knowledge?
- iii. Do the staff have adequate knowledge and skills (soft skills, mainly facilitation and negotiation skills) for delivering nutrition programmes?

The focus in this section is to assess training capacity for the staff:

- i. Who trains the staff on addressing nutrition? (Name organizations)
- ii. How often are the staff trained? (Frequency of training, number of staff trained?)
- iii. Is there induction training for staff?
- iv. If yes to question iii, is the nutrition topic covered during induction training?
- v. Do you think that the training institutions have a sufficient number of resource persons to organize quality training on nutrition aspects?
- vi. Are the staff satisfied with training on extension?
- vii. Do you organize induction training?
 - a. Are the training programmes from international organizations or from national institutions?
 - b. Are the topics covered adequate?
 - c. If the topics are not adequate, what are the missing topics?
 - d. What limitations does the organization experience when providing induction training?
- viii. Do you organize in-service training?
 - a. Are the training programmes from international organizations or from national institutions?
 - b. Are the topics covered adequate?
 - c. If the topics are not adequate, what are the missing topics?
 - d. What limitations does the organization experience when providing in-service training?
- ix. Is there a training module on nutrition-sensitive agriculture which is used for staff training?

5.3 Operational support for implementing nutrition programmes

a. Mobility support

1. Does your organization have adequate vehicles for staff travel to organize nutrition programmes?
2. Is there a mechanism for hiring vehicles for travel?
3. Do field staff have motorbikes?
4. If they have motorbikes, are they paid fuel allowances to cover their field travel costs?

b. Support with Information, Education and Communication materials that enhance learning

1. Has your organization developed learning materials that could be used to educate clients on nutrition?
2. If yes, what IEC materials exist and are used by the staff?
3. How does the organization provide IEC support to staff for use in the field?

Please complete information on IEC required in Table 2 below

TABLE 2**FREQUENCY OF USE OF INFORMATION, COMMUNICATION AND EDUCATIONAL (ICE) MATERIALS**

No.	ICE Materials	Frequency of use					Reasons for no or limited use
		Always	Often	Sometimes	Rarely	Never	
A Printed Materials							
1.	Brochures (including leaflets/pamphlets)	4	3	2	1	0	
2.	Posters	4	3	2	1	0	
3.	Wall calendars	4	3	2	1	0	
4.	Billboards	4	3	2	1	0	
5.	Advertisements (posted on public transport vehicles, for example)	4	3	2	1	0	
6.	Flip charts	4	3	2	1	0	
7.	Others	4	3	2	1	0	
		4	3	2	1	0	
		4	3	2	1	0	
B Mass Media							
9.	Audio clips	4	3	2	1	0	
10.	Video clips	4	3	2	1	0	
11.	Mini-drama	4	3	2	1	0	
12.	Television	4	3	2	1	0	
13.	Radio	4	3	2	1	0	
14.	News Papers	4	3	2	1	0	
15.	Magazines	4	3	2	1	0	
16.	Giveaways (seeds/planting materials)	4	3	2	1	0	
17.	Others						
		4	3	2	1	0	
		4	3	2	1	0	
		4	3	2	1	0	

SOURCE: Authors' own elaboration.

6. Building Effective Partnerships

THE FOCUS IN THIS SECTION IS TO EXPLORE THE NATURE AND EFFECTIVENESS OF PARTNERSHIP IN NUTRITION

a. Does your organization work with other agencies in promoting nutrition?

(Please use Table 3 below to complete information on the following questions)

- x. If yes, which organization does it work with?
- xi. What is the purpose of collaboration?
- xii. What challenges do you experience in the partnership?

b. If your organization does not work in partnership with other organizations, what are the reasons for not collaborating with other organizations?**g. What needs to change to develop new partnerships/improve existing partnerships?**



TABLE 3 NATURE OF COLLABORATION FOR IMPLEMENTING NUTRITION

No.	Organization	Name of partner organisation	Purpose of partnership	Challenges in partnership
1		1		
		2		
		3		
2				

SOURCE: Authors' own elaboration.

Annex 4. Focus group discussions interview guide

Global capacity needs assessment

Focus group discussion assessment tool

The Global Forum for Agricultural and Advisory Services (GFRAS) is conducting a global capacity needs assessment (GCNA) for extension and advisory services (EAS) in conjunction with the regional fora, in our case Africa (AFAAS). The aim of this assessment is to understand capacity gaps, needs and obstacles to integrating nutrition-related objectives into agricultural programmes and policies. As the first step in this process, Malawi, under MaFAAS, has been chosen as a pilot country in the Africa region to test the methodology for this GNLA, which is then to be applied globally. The objective of this FGD is to understand the capacity of district and area coordinating committees for addressing nutrition and promoting nutrition-sensitive agriculture in EAS. Areas that require capacity strengthening and new capacity development will be identified. We would therefore like to learn how you assess yourself as a committee in the following areas:

1. Importance of nutrition

- d. Is nutrition an important issue in your committee?
- e. If yes, why and if not, why not?
- f. What programmes or activities do you implement to promote nutrition?

2. Production diversity

- g. Why is production diversity important and what role does your committee play in promoting production diversity?
- h. Why is dietary diversity important and what role does your committee play in promoting dietary diversity?
- i. What role does your committee play in ensuring year-round access to diverse nutritious foods?

3. Nutrition-friendly agricultural practices

- a. Why are nutrition-friendly agriculture practices important and what role does your committee play in promoting nutrition-friendly agriculture practices?

4. Gender-responsive agriculture labour practices

- a. Why are gender-responsive agriculture labour practices important and what role does your committee play in promoting gender-responsive agriculture labour practices?

5. Better agricultural practices for better water sanitation and hygiene

- a. Why is water sanitation and hygiene important for nutrition and what role is your committee playing in promoting water sanitation and hygiene?

b. Why is hygiene in food preparation and care-giving important and what is your committee doing to promote hygiene in food preparation and caregiving?

6. Coordination and collaboration between DAEC and DNCC, or between ASP and ANCC

a. What collaboration and coordination activities exist between your committee and the DNCC/ANCC?

Annex 5. Individual-level capacity assessment interview guide

Global capacity needs assessment

Individual-level capacity assessment tool

The objective of this section is understanding individual-level capacities (existing capacities that need strengthening and new capacities that need to be developed) for addressing nutrition or promoting nutrition-sensitive agriculture in EAS, and other actors who can support this activity. Listed below are some of the individual capacities. For each capacity, we ask you to indicate your level of capacity by circling the appropriate response.

A CAPACITIES (TECHNICAL KNOWLEDGE ON NUTRITION) TO ADDRESS NUTRITION AMONG STAFF AT DIFFERENT LEVELS				
No.	Competency categories/ Description of capacity	Level of capacity		
		Need to be developed	Need strengthening	Adequately available
1	Importance of nutrition			
	1. Is convinced that nutrition is important, and motivated to take action at personal, family/community, and professional levels (attitude/perspective)	1	2	3
2	Production diversity (as economically and agro-ecologically appropriate)			
	1. Can identify context-appropriate trees, crops and livestock that can meet nutrition needs of specific/ targeted communities and households	1	2	3
	2. Can provide examples of farm products (including cultivated and wild plants, animal-source foods, and fish) which contribute to improved dietary diversity, and are appropriate for the market context	1	2	3
3	Diversity of diets (from both household production & market access)	1	2	3
	1. Can identify why and promote a diversity of foods that contribute to health and nutrition	1	2	3
	2. Understands the nutritional value of specific foods and food groups, and the importance of consuming a variety of foodss	1	2	3
4	Year-round access to diverse, nutritious foods			
	1. Understands the relationship between seasonal food availability, fluctuations in income, food and nutrition security, and health	1	2	3
	2. Can engage communities in planning for better food access to nutritious foods	1	2	3

[Circle at the appropriate response]

No.	Competency categories/ Description of capacity	Level of capacity		
		Need to be developed	Need strengthening	Adequately available
5	Nutrition for all			
	1. Is sensitized to people's different nutrition needs, determined by sex, age, activity level, health status, pregnancy and lactation	1	2	3
	2. Is able to identify and address the needs of the most nutritionally vulnerable	1	2	3
6	Nutrition-friendly agricultural practices			
	1. Can identify and promote practices that improve soil health: intercropping, crop rotation, applying organic materials, using limited tillage methods	1	2	3
7	Responsible agrochemical use			
	1. Knowledge of integrated pest management (IPM) options – understands there can be a range of (sometimes nonchemical) options to control any given pest Improvements in product choice, agrochemical preparation and application practices, timing of application, and consumption of treated produce	1	2	3
8	Gender-responsive agricultural labour practices			
	1. Identifies the health- and nutrition-related problems that result from inappropriate labour practices for perinatal & lactating women	1	2	3
	2. Can promote alternative activities and practices based on biological limitations and gender-related tasks	1	2	3
9	Reducing post-harvest losses for home consumption and for markets			
	1. Describes the basic causes of post-harvest losses at during harvest, storage, and preparation at home	1	2	3
	2. Lists, understands, describes, and discusses simple, low-cost techniques/technologies that minimize post-harvest losses	1	2	3
	3. Analyses and evaluates techniques/technologies at home that are more appropriate for minimizing post-harvest losses	1	2	3
	4. Applies techniques/technologies that minimize post-harvest losses and maximize storability of foods	1	2	3
10	Better agricultural practices for better Water, Sanitation, and Hygiene (WASH)			
	1. Encourages people regarding the importance of adopting agricultural practices that reduce the risk of infection	1	2	3
11	Hygiene in food preparation, caregiving			
	1. Recognizes the importance of access to safe, accessible, and adequate water for both domestic and agricultural purposes Is able to help reduce the risk of vector-borne and faecal-oral diseases and illnesses resulting from certain irrigation practices	1	2	3

No.	Competency categories/ Description of capacity	Level of capacity		
		Need to be developed	Need strengthening	Adequately available
12	Irrigation and Multiple Use Water Services			
	1. Recognizes the importance of access to safe, accessible, and adequate water for both domestic and agricultural purposes. Is able to help reduce the risk of vector-borne and faecal-oral diseases and illnesses resulting from certain irrigation practices	1	2	3
13	Livestock management, clean water, sanitation and hygiene			
	1. Communicates the disease risks posed by specific livestock and practices in a given locale (if known), and promotes alternative actions and preventive measures	1	2	3
14	Market orientation			
	1. Is able to identify marketing opportunities for nutritious products that will be affordable for many consumers Analyses market opportunities for nutrition-sensitive value chains	1	2	3
	2. Estimates capital required and return on investment for investments in nutrition-sensitive value chains			

SOURCE: Authors' own elaboration.

B
CAPACITIES THAT ENABLE STAFF TO PLAN, IMPLEMENT AND MONITOR PROGRAMMES TO ACHIEVE NUTRITION IMPACT

[Circle at the appropriate response]

No.	Competency categories/ Description of capacity	Availability of capacity		
		Need to be developed	Need strengthening	Adequately available
1	Plans, monitors and designs appropriate nutrition programmes	1	2	3
2	Incorporates explicit nutrition objectives into agricultural projects, programmes and policies	1	2	3
3	Assesses the context to identify nutritional problems and groups most at risk	1	2	3
4	Do no harm: avoids unintended negative consequences of certain practices, technologies and income-generating strategies can have adverse effects on the diversity of production, home consumption vs. selling, and increased labour, time, and energy demands (especially for women) making nutrition improvements more difficult	1	2	3
5	Networks and partners with representatives of other organizations/agencies involved in nutrition	1	2	3
6	Works in multi-organizational and multisectoral teams	1	2	3
7	Communicates and advocates for changes in policies and institutions by engaging decision makers on aspects related to nutrition	1	2	3
8	Increases equitable access to productive resources	1	2	3
9	Targets the most vulnerable groups, including smallholder farmers, women and poor/food-insecure households	1	2	3
10	Leadership capacity – inspires and motivates others	1	2	3
11	Facilitates group dynamics, process, meetings and discussions	1	2	3
12	Facilitates conflict and alternative dispute resolution	1	2	3
13	Creates, participates in and leads teams	1	2	3
14	Mediates, negotiates and solves disputes	1	2	3

SOURCE: Authors' own elaboration.

C
OTHER CAPACITIES THAT NEED STRENGTHENING/DEVELOPMENT

[Circle at the appropriate response]

No.	Competency categories/ Description of capacity	Availability of capacity		
		Need to be developed	Need strengthening	Adequately available
1		1	2	3
2		1	2	3
3		1	2	3
4		1	2	3
5		1	2	3
6		1	2	3
7		1	2	3

SOURCE: Authors' own elaboration.





With support from
**Federal Ministry
of Food
and Agriculture**

by decision of the
German Bundestag

www.fao.org

