



MALAWI

ENDING HUNGER & UNDERNUTRITION CHALLENGES & OPPORTUNITIES

MAY 2016

SCOPING REPORT FOR ROUNDTABLE DISCUSSION

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<u>Compact2025</u>, launched in November 2015, is a bold new initiative for ending hunger and undernutrition by 2025. It brings stakeholders together to set priorities, innovate and learn, fine-tune actions, build on successes, and synthesize shareable lessons to accelerate progress. A version of this document was drafted to inform the Compact2025 roundtable discussions held in Lilongwe, Malawi, on May 26, 2016. The document has been subsequently revised and updated according to inputs from the roundtable discussions.

Preface

Compact2025, launched in November 2015, is a bold new initiative for ending hunger and undernutrition by 2025. It brings stakeholders together to set priorities, innovate and learn, fine-tune actions, build on successes, and synthesize shareable lessons in order to accelerate progress.

Eliminating hunger and undernutrition in 10 years is a huge task, but it can be accomplished. Brazil, China, Peru, Thailand, and Vietnam have each dramatically reduced hunger and undernutrition in a relatively short time. Learning from their and others' experiences and leveraging strong commitments from the global community to end hunger and undernutrition make it possible to accelerate progress even further. Compact2025's approaches include the following:

Engaging countries: Success in ending hunger and undernutrition depends on country-owned and country-led strategies and investments. Compact2025 begins with an initial focus on four countries— Bangladesh, Ethiopia, Malawi, and Rwanda—and will then scale up to include additional countries.

Stimulating knowledge and innovation: Compact2025 will create a Knowledge and Innovation Hub, which will have four areas of focus: Stimulating innovation, communicating research on what works, synthesizing lessons, and collecting data and monitoring progress.

Supporting existing initiatives and partnerships: Compact2025 will not compete with but rather complement and support existing global, regional, and national initiatives to accelerate progress with data, knowledge, capacity, communications expertise, innovation, and research support.

Compact2025 is designed to accelerate progress. It assists countries to refine and implement their road maps for action toward ending hunger and undernutrition by 2025. It is for this reason that Compact2025 starts the process in each focal country with a scoping study that serves as input for a roundtable discussion. The scoping study provides an overview on where the country stands, who the major stakeholders are, and where the key gaps are that hold back progress.

Accordingly, Compact2025 and partners organized a roundtable discussion in Lilongwe, Malawi on May 26, 2016 to set the critical groundwork for assessing how to end hunger and undernutrition in Malawi by 2025. The roundtable identified key knowledge, policy, and implementation gaps as well as opportunities, potential synergies, and priority areas for action. This finalized scoping report includes input received during the event.

In Malawi, commitment to ending hunger and undernutrition is strong among the many actors working on related issues, and it is imperative that we all work together toward the 2025 goal. Bringing together over 100 government and nongovernment stakeholders across several key sectors, the roundtable discussion is a first step for Compact2025 to support Malawi in accelerating progress toward ending hunger and undernutrition.

Executive Summary

Malawi has made some gains in reducing hunger and undernutrition. However, both remain serious challenges. Undernutrition results in severe human and economic costs—for example, Malawi loses an estimated 10 percent of gross domestic product (GDP) mainly due to productivity losses resulting from undernutrition. For Malawi to meet its national goals and end hunger and undernutrition by 2025, progress must be accelerated with a renewed focus on underlying causes related to food and water systems, nutrition education and healthy living conditions for all.

Malawi's policy environment for food security and nutrition has evolved in recent years. Under its Vision 2020, Malawi aims to reach middle-income status and achieve global and national goals by tackling nine broad strategic challenges—including improving food security and nutrition. The Malawi Growth and Development Strategy II (2011-2016; MGDS III is under way) provides the framework for the country's mid-term development aspirations, and also signals Malawi's commitment to global agreements such as the Sustainable Development Goals. Further sectoral and cross-sectoral plans, including the National Food Security Policy (2006), the National Agricultural Policy (under revision) and the National Nutrition Policy and Strategic Plan (2007-2012 under revision), have provided goals, targets, and indicators for food security and nutrition. While Malawi's policies and programs prioritize food security and nutrition, scope exists for greater coordination among the many sectors and actors involved in implementing and monitoring them.

This scoping report was prepared to inform the Compact2025 roundtable discussion by providing an overview of the food security and nutrition challenges and opportunities in Malawi. It reviews the food security and nutrition policy landscape across key sectors and actors in Malawi as well as critical knowledge, policy, and implementation gaps. It also assesses vulnerabilities to recurrent economic and climatic shocks such as those brought on by El Niño. Additionally, the scoping report presents a SWOT analysis (strengths, weaknesses, opportunities, and threats) that crystallizes the main elements that drive or hamper food security and nutrition in the country. To determine what is holding back progress, this study identifies several key research, policy, and action gaps, including the current disconnect between agriculture, nutrition, and health, and the need to put into action the policies needed to guide activities.

As informed by the roundtable discussion held on May 26, 2016, this report identifies five major recommendations for accelerating progress to end hunger and undernutrition in Malawi:

- 1. Strengthen capacity at all levels
- 2. "Break the cycle" with holistic, transparent, and market-driven approaches
- 3. Improve accountability and coordination
- 4. Fine-tune and implement nutrition-driven policies
- 5. Fill data, indicator, and knowledge gaps

To help implement these recommendations and to support the acceleration of progress toward ending hunger and undernutrition in the country, Compact2025 aims to establish a Knowledge and Innovation Hub in Malawi.

Overview of Malawi's food security and nutrition challenges

While hunger and undernutrition are still serious problems in Malawi, the country has made progress to reduce both. Nonetheless, Malawi has not attained stability in food security and nutrition for all citizens, resulting in high levels of hunger as well as undernutrition, which contributes to 23 percent of all child mortalities in Malawi between 2008 and 2012 (WFP 2015). Moreover, despite some advances in poverty reduction, economic growth has been inconsistent. However, Malawi has made improvements in some of the underlying determinants of undernutrition, including increasing calorie access and access to safe drinking water. Much more is needed to diversify agriculture and food systems to assure all food groups are available and accessible year round.

This section of the scoping report discusses the current poverty, food security, and nutrition situation in Malawi, along with past trends and progress.

Poverty

Malawi is a low-income country with high rates of poverty. The proportion of the population living under \$1.90 a day declined from 74 percent to 71 percent between 2004/05 and 2010/11 (Figure 1).¹ Poverty is higher in rural areas than urban areas, and national surveys suggest that poverty increased in rural areas from 2004/05 to 2010/11. While recent research suggests that poverty has indeed declined in rural areas in that time period—thus conflicting with national estimates—there is consensus that the incidence of poverty is highest in the northern and southern regions, particularly in the more remote districts and those along the lake shore. There is also consensus that, encouragingly, these regions have seen the greatest declines in poverty from 2004/05 to 2010/11 (Pauw, Verduzco-Gallo, and Ecker 2015).

Underlying the slow decrease in poverty over the past decade was moderate economic growth saddled with high population growth. From 2000 to 2014, Malawi averaged a GDP growth rate of 4.3 percent (World Bank 2016b). However, with an annual population growth rate of 3.1 percent from 2000 to 2015, the per capita GDP growth rate was 1.3 percent. As such, GDP per capita rose only slightly: from 1990 to 2014, GDP per capita increased from \$687 to \$783 (in purchasing power parity).

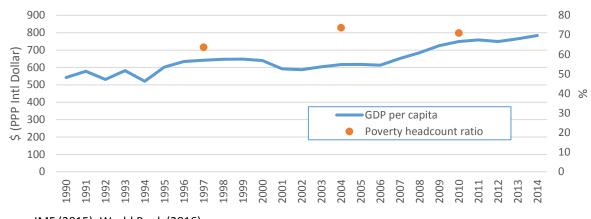


Figure 1 GDP per capita and poverty headcount ratio at using the international poverty line (\$1.90 a day), 1990–2013

Source: IMF (2015); World Bank (2016).

Malawi has achieved some of the Comprehensive Africa Agriculture Development Programme (CAADP) goals. The country surpassed the 6 percent average annual agricultural growth rate in 2013

and 2014, and has consistently allocated over 10 percent of the national budget to the agriculture sector since 2006 (ReSAKSS 2015). The budget allocation was driven mostly be expenditures on the Farm Input Subsidy Program (FISP)—a program that accounts for 3–6 percent of GDP and that delivers direct benefits to two-fifths of the population. Agricultural research and development (R&D) spending in Malawi more than doubled between 2008 and 2011, due to growth in both government and donor funding. As a result of this increased spending, the intensity of agricultural R&D—or the share of agricultural GDP invested in agricultural research—reached 1.03 percent, meeting the 1 percent target recommended by the New partnership for Africa's Development (NEPAD) and the United Nations (IFPRI 2015b).

Food security

The country has made some gains in reducing hunger. From 1990/92 to 2014/16, prevalence of undernourishment¹ fell by over half, from 44.7 percent to 20.7 percent—a sign of strong, yet incomplete progress (Figure 2). However, the total number of calorie deficient people in Malawi has fallen only slightly, from 4.3 million to 3.6 million from 1990/02 to 2014/16 (FAO 2016). The incidence of food insecurity is higher in rural areas than in urban areas and among female-headed households compared to male-headed households (WFP 2012).

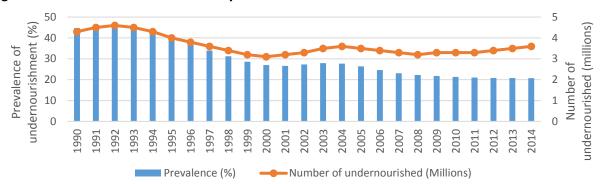


Figure 2 Prevalence of calorie deficiency in Malawi

Food crop production and productivity have increased in Malawi in recent years. As Table 1 shows, food crop production has grown—cereal production grew nearly 60 percent, roots and tubers production by nearly 100 percent, pulse production by over 150 percent, vegetable production by 44 percent, and fruit production by nearly 50 percent from 2000 to 2013/14. Yields also rose for cereals (30 percent), roots, tubers, and pulses (48 percent), and fruits (38 percent) from 2000 to 2013/14. Yields fell for vegetables by nearly 30 percent in that time period.

Source: FAO (2016), based on IHS data.

¹ Undernourishment refers to the proportion of the population whose dietary energy consumption is on average less than 1706 kilocalories per person per day as defined by the Food and Agriculture Organization (FAO). Individual calorie intake is estimated from household food consumption data.

	Production	Area	Yield
Cereals	60	22	31
Roots and Tubers	98	34	48
Pulses	155	71	48
Vegetables	44	103	-29
Fruits	48	7	38

Table 1 Change in production, area, and yield for selected crops, 2000 to 2013/14 (%)

Source: FAO (2016).

While production for many crops has increased, so has the population. Per capita supply of food available for human consumption increased for pulses (44 percent), with somewhat smaller increases for roots and tubers (13 percent) from 2005 to 2011. Maize consumption increased substantially: daily per capita quantity consumed increased by more than 40 grams in urban areas and by more than 60 grams in rural areas from 2005 to 2011 (Verduzco-Gallo, Ecker, and Pauw 2014). In the same time period, per capita supply of fruits decreased (down 8 percent). From 2005 to 2011, per capita supply of proteins increased, from 57 grams to 63 grams per day, in keeping with broader regional trends in the supply of proteins—the per capita average for East Africa rose from 54 to 57 grams per day over this period.

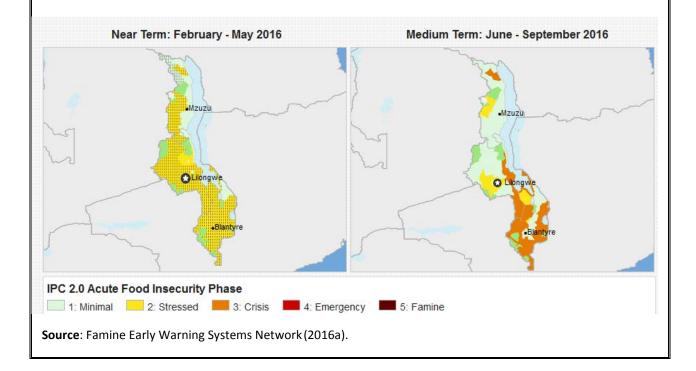
Malawi has made progress in reducing its food deficit, but shocks, including the recent El Niño, combined with environmental degradation, exacerbate production challenges and contribute to food insecurity (Box 1). The Malawi Vulnerability Assessment Committee (MVAC) forecasts of the extent of food insecurity in the 2016-17 hungry season will be released in June 2016.

Food access is a challenge for Malawians. As of 2011–2013, the share of food expenditures in total expenditures for poor households in Malawi was 77 percent (FAO 2016). In addition, research shows that households are allocating a larger share of their budgets to food than they did in the past, in spite of rising incomes. And while the country as a whole is consuming more of some nutrient-rich foods, only 15 percent of the children consume a minimum acceptable diet for quality with the required frequency (DHS 2010). Overall, less than 50 percent consume white meat, while vegetable consumption had decreased, which is likely to exacerbate micronutrient malnutrition. (Pauw, Verduzco-Gallo, and Ecker, 2015). During shocks, nearly 60 percent of households consume a borderline diet (EFSA 2013). The high food share makes households vulnerable to price shocks, and price shocks for staple foods in Malawi exacerbate food insecurity, with particularly strong effects on poor net food buyers (Harttgen et al. 2016). In the country, 60 percent of households are net maize buyers.

Box 1. El Niño, Drought, and Food Shortages in Malawi

A large majority of the Malawian population relies significantly on rainfed agriculture. For the past decade, Malawi has faced erratic rainfall patterns that have affected agricultural productivity significantly. As a result, many communities have persistently faced food insecurity, resorting to various and often negative coping strategies to obtain food, including selling off assets. Consequently, their resilience to shocks has decreased (GoM 2015). In 2015, the Malawi Vulnerability Assessment Committee (MVAC) forecast that 17 percent of the population, or 2.8 million people, would not be able to meet their annual food requirements for the 2015/16 agricultural year. This high rate of food insecurity may have been due to a combination of adverse weather hazards caused by El Niño, including late onset of rains, prolonged dry spells, floods, and early cessation of rains (MVAC 2015). In early January 2016 the President declared a state of emergency for 15 districts. The government, UN agencies, international and local nongovernmental organizations (NGOs), civil society organizations, Malawi Red Cross Society, and the private sector responded by providing relief items such as tents, tarpaulins, and food to displaced communities. Following two situational assessments, a Preliminary Response Plan was developed that identified gaps in terms of humanitarian response.

In response to the MVAC projections, the Government of Malawi prepared a National Food Insecurity Response Plan that highlighted resource gaps and requirements and proposed interventions and nutrition-specific responses (GoM 2015). The El Niño event continued into 2016 with the late onset of rains delaying the planting season by up to 50 days. On April 12, 2016, the President officially declared a state of disaster in Malawi. But MVAC estimates of the number of people who will require food aid are not yet released. The country's response has for the past two years been characterized by presidential declarations of emergency or disaster that triggered international humanitarian aid from UN and other development agencies, followed by the development of national disaster response strategies.



Nutrition and diet outcomes

Malawi has made progress in improving nutrition outcomes, but the country still faces severe challenges, particularly among children under 5 years of age. About 23 percent of all child deaths in Malawi are directly associated with undernutrition (WFP 2015). Child undernutrition in the form of stunting—low height/length for age, indicating long-term undernutrition—is associated with adverse outcomes related to slow and impaired physical and cognitive development. As a result, stunted children experience both short- and long-term consequences such as low school attainment, low productivity as an adult, and low lifetime earning potential (Hoddinott et al. 2013).

In Malawi, the prevalence of under-5 stunting, or low height/length for age, dropped from 53 percent to 37 percent from 2004 to 2015/16 (Figure 3). Prevalence of child stunting varies by demographics: in 2015/16, it was more prevalent in rural areas (39 percent) than urban areas (25 percent), and among the poorest quintile (46 percent) compared to the wealthiest quintile (37 percent). There is little regional variation in child stunting (DHS 2016).

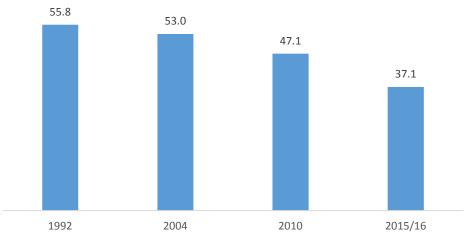


Figure 3 Prevalence of under-5 stunting (%)

Source: Malawi National Statistical Office (1992-2015/16).

Malawi has shown mixed results for other indicators of undernutrition as well: As of 2014, just 4 percent of children under 5 suffer from wasting (low weight for height, indicating acute undernutrition). Almost 13 percent of Malawian children start their lives lower than their potential because they are born underweight as a result of poor maternal health. In 2010, about 9 percent of women age 15–49 were too thin and 2 percent were considered to be short in stature.

Weight and height are only two nutrition considerations; there are almost 50 nutrients that humans need for energy, growth and health. As of 2011, 29 percent of women of reproductive age were affected by anemia—roughly equivalent to the prevalence in East Africa at 28 percent (WHO/UNICEF 2015). About 30 percent of Malawian children were anaemic in 2010. Vitamin A deficiency is found in 60 percent of children under five and 58 percent of school age children between 6 and 10 years. Despite various forms of micro- and macronutrient deficiencies existing in Malawi, overweight and obesity are emerging concerns, as currently 31 percent of women in Malawi are overweight (WHO 2015).

Undernutrition has severe social and economic costs—for Malawi, it costs up to 10.3 percent of GDP

annually, mainly due to lost productivity but also due to increased healthcare costs and the opportunity costs associated with lower educational attainment (WFP 2015). Investments in improving nutrition yield high returns—every dollar invested in reducing child stunting yields on average over \$16 in terms of increased economic output across the entire economy (Hoddinott et al. 2013).

Nutritional outcomes depend on several key underlying determinants, including dietary diversity and quality. Diets in Malawi are dominated by cereals, mainly maize, and starchy roots, with little diversity. As of 2011, 67 percent of the average Malawian diet were staples, and of the 932 grams of consumed food per day, 482 grams—over 50 percent—were from maize alone (Verduzco-Gallo, Ecker, and Pauw). Although most Malawians may be getting enough to eat in terms of total calories, few are consuming sufficient quantities of nutrient-rich foods from all the food groups on a regular basis; in addition to staples, foods from animals, legumes and nuts, fats, fruits, and vegetables should also be consumed regularly. (Harris et al. 2015).

Access to improved WASH infrastructure is highly associated with better nutrition, especially reductions in child stunting (Spears and Haddad 2015). Access to safe drinking water and sanitation has improved in Malawi. From 1990 to 2015, safe drinking water coverage increased substantially from 42 percent to 80 percent. Within the same period, adequate sanitation coverage increased slowly from 46 percent to 65 percent (WHO/UNICEF JMP 2015). The practice of open defecation has been greatly reduced from 29 percent in 1990 to 4 percent in 2015. However, children in the Central region were more susceptible to diarrheal incidents and the percentage seeking treatment was the lowest in comparison with other regions (WFP 2012).

Parental education—and particularly maternal education—is also associated with lower rates of child stunting (Semba et al. 2008). In Malawi, higher educational attainment levels for women are strongly associated with better district averages for nutritional indicators, implying a strongly beneficial relationship (Meerman et al. 2015). National nutritional outcome indicators reveal similar findings: children of mothers with no education are much more likely to be stunted (53 percent) than children whose mothers have completed secondary and higher education (39 percent) (DHS 2010). From 2009 to 2013, female secondary education enrollment increased from 29 percent to 35 percent in the country.

Women's low socio-economic status and persistent gender gaps in health and education contribute to chronic child malnutrition (Smith et al. 2003) and food insecurity (von Grebmer et al. 2009), even as other determinants of food security, such as per capita incomes, improve. Similarly, greater women's empowerment in household decision making is associated with reduced prevalence of stunted children and of underweight women. In districts in which women are more often excluded from such decisions, average malnutrition levels are higher (Meerman et al. 2015). Addressing gender gaps is key, as women's empowerment has been shown to improve nutrition (Malapit and Quisumbing 2015) as well as food security (Sraboni et al. 2014). Overall, Malawi ranked 68 out of 145 countries in the World Economic Forum Global Gender Gap Index,² with educational attainment and political empowerment being the two main gender gaps that the country faces.

² Developed by the World Economic Forum, the Global Gender Gap Index ranks economies on how well they leverage their female talent pool based on economic, educational, health-based, and political indicators.

Strategies, policies, and programs to address food security and nutrition

The Government of Malawi is firmly committed to ending hunger and undernutrition. This section describes the current policies, programs, strategies, and action plans of the government and development partners to ensure food security and nutrition in Malawi.

National development frameworks

The national development framework for Malawi is Vision 2020, which sets the policy objective of transforming Malawi into a middle-income country by 2020 and includes goals regarding food security and nutrition. It is implemented through the Malawi Growth and Development Strategy, which is now approaching the end of its second phase.

Vision 2020 aims for all members of all households to have access to adequate and safe food at all times of the year to meet their nutritional requirements. To achieve this goal, it addresses the following strategic issues: increasing food production; developing irrigation; developing the livestock subsector; improving efficiency of markets; reducing postharvest losses; improving disaster management; improving land utilization and management; economically empowering vulnerable groups; promoting nonfarm income generating activities; and improving nutrition status of the people.

Vision 2020 also aims to further develop Malawi in other sectors that are relevant to food security and nutrition, including: developing the agriculture sector; improving the education system; improving availability, accessibility, and quality of health services; reducing poverty; raising agricultural incomes, including the improvement of tenancy arrangements; improving access to land; increasing social services; reducing gender inequalities; further developing infrastructure; preventing and controlling land degradation and climate change; and promoting sound water resources management.

The Malawi Growth and Development Strategy II (2011–2016) is the second medium-term national development strategy formulated to attain the country's long-term development aspirations. It is based on priority areas from the first Malawi Growth and Development Strategy, as well as three new priority areas. The original six priority areas are: Agriculture and food security; irrigation and water development; transportation infrastructure development; energy generation and supply; integrated rural development; and prevention and management of nutrition disorders and HIV/AIDS. For the Malawi Growth and Development Strategy II, these were expanded to nine priority areas with some broadening in the scope of the original six, plus the addition of three new priorities: education, science, and technology; child and youth development; and climate change and natural resource management.

In the MGDS II, nutrition is a sub-theme under Social Development. The nutrition goal is to have a wellnourished population that effectively contributes to development of the country. Key strategies include: promotion of optimal breastfeeding practices for children; prevention, control, and treatment of micronutrient deficiency disorders; improving access to nutrition supplements for malnourished children, expectant and lactating mothers, and the elderly and physically challenged; and many other nutrition approaches and interventions.

Sectoral and cross-cutting policies and action plans

The National Nutrition Policy and Strategic Plan (NNPSP) is led by the Department of Nutrition, HIV and AIDS within the Ministry of Health. The policy ended in 2012, but is currently under revision. The NNPSP had a multitude of targets, such as to reduce child stunting to 40 percent by 2011 (for a full list of

targets, see Table 1A in the annex). The main targets of the NNPSP were to meet the Millennium Development Goals that related to nutrition. The policy and strategic plan have three main focus areas which are:

- The prevention and control of various forms of nutrition disorders with a focus on pregnant and lactating women, children 0–2 years, under-5 children, school-aged children, people living with HIV, people in emergency situations, and other vulnerable groups as may be defined from time to time.
- Promoting access and quality of nutrition and related services to facilitate effective management of nutrition-deficiency disorders among various population groups with a focus on under-5 children, pregnant and lactating women, people living with HIV, adolescents, and adults.
- 3. Creation of an enabling environment that adequately provides for the delivery of nutrition services and implementation of the nutrition programs, projects, and interventions.

The National Food Security Policy (2006) and the Food Security Action Plan are led by the Ministry of Agriculture and aim to guarantee that all men, women, boys, and girls, especially those under 5 years of age, in Malawi have, at all times, physical and economic access to sufficient nutritious food to lead a healthy and active life. The Action Plan coordinated the Food Security Policy and aims to enhance the collaboration between the projects and the government both at the central and district level. The Policy ended in 2011 and was incorporated into the National Agriculture Policy (NAP) to some extent, which is currently in its final stage of review and vetting.

Sector-specific plans, approaches, and strategies also figure into the achievement of food security and nutrition in Malawi. The Agriculture Sector's Gender, HIV, and AIDS (GHA) strategy also has clear components for food security and nutrition, including improving economic empowerment and food security and reducing malnutrition for women and vulnerable groups. The Agriculture Sector Wide Approach (ASWAp), under the Ministry of Agriculture, focuses on

- (1) food security and risk management,
- (2) commercial agriculture, agroprocessing, and market development, and
- (3) sustainable agricultural land and water management.

Some of its targets include increasing average maize yield, reducing postharvest losses, improving diet diversification, and increasing agricultural exports. The update to the ASWAp, is underway.

The School Health and Nutrition (SHN) Strategic Plan, under the Ministry of Education, Science, and Technology, aims to improve the health, nutrition, and lifestyles of school-aged children aged 2–18 and to improve the management and coordination of SHN at all levels. Its goals include complete coverage of schools with adequate drinking water and sanitation facilities, micronutrient supplementation, 80 percent coverage of daily breakfast and snacks, reduced vitamin A deficiency and anemia among school-aged children, and 50 percent school coverage of the complete SHN package. The National Social Support Policy sets the overarching framework for social protection covering the current five key programmes of social cash transfers (SCT), public works (PW), school meals (SM), village savings and loans (VSL), and microfinance (MF). The social cash transfer programme and public works programme have explicit food security objectives.

For information on gender policy, nutrition education and communication strategy, and social support policy, as well as other government and partners' cross-cutting policies and action plans relevant to food security and nutrition in Malawi, see Table 2A in the annex. For an overview of the programs and interventions in food security and nutrition in Malawi, see Table 3A in the annex.

Looking forward: upcoming food security and nutrition plans

Currently, both the food security and nutrition policies are outdated. The revised National Nutrition Policy and Strategic Plan (2016–2020) is nearly completed and will include the following eight priority areas: 1) prevention of undernutrition; 2) gender equality, protection, participation and empowerment; 3) treatment and control of acute malnutrition; 4) prevention and management of overnutrition and nutrition-related non-communicable diseases; 5) social mobilization and behavior change communication; 6) nutrition during emergency situations; 7) creating an enabling environment for nutrition; and 8) nutrition research and surveillance.

Currently, the development of a Nutrition Bill is underway, as well as a draft of the National Agricultural Plan.

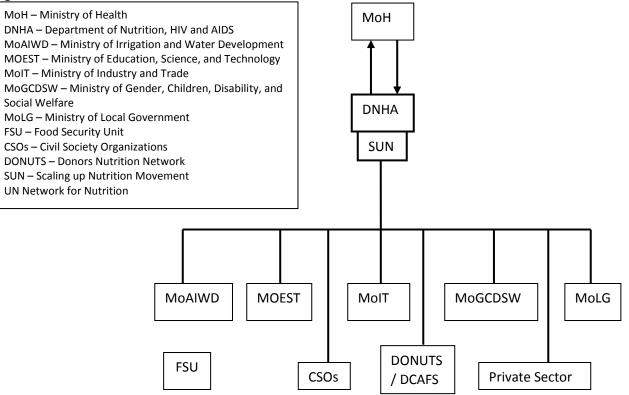
Stakeholder mapping

In 2004, the Government of Malawi recognized that malnutrition, which manifested predominantly as undernutrition, required special attention. Consequently, food security and nutrition were separated as policy issues. The Department of Nutrition, HIV and AIDS (DNHA) was established to coordinate and oversee all nutrition activities. The Department of Nutrition, HIV and AIDS is now housed in the Ministry of Health, having been transferred from the Office of the President and Cabinet (OPC) in 2014. The Scaling Up Nutrition (SUN) Movement helps to coordinate activities across the many nutrition sectors and actors. The SUN government focal point is the Director of Nutrition in the Department of Nutrition, HIV and AIDS. The Food Security Unit is housed within the Ministry of Agriculture, Irrigation and Water Development (MOAIWD).

The agencies in government respectively responsible for food security and for nutrition function relatively independently, although there is some effort to ensure coordination of activities for both— representatives from the Department of Nutrition, HIV and AIDS and Ministry of Agriculture, Irrigation and Water development jointly participate in various Technical Working Groups—in particular the Food Security and Risk Management Technical Working Group. However, no formal coordination structure exists for the two institutions. A Food Security and Nutrition Task Force was established prior to passage of the Food Security Policy (2006); however, this task force is no longer active. Currently, the Support to Nutrition Improvement Component (SNIC) has a multi-sectoral Technical Working Group, and informal technical working groups have been formed to provide evidence and advice on nutrition issues.

There are several other ministries that play a key role in food security and nutrition in Malawi. These include the Ministry of Gender, Children, Disability, and Social Welfare; the Ministry of Education, Science and Technology; the Ministry of Trade and Industry; and the Ministry of Local Government. Owing to the multisectoral nature of nutrition, it was decided that nutrition officers would be deployed to each of the above-mentioned ministries to ensure that nutrition is not neglected in the focus areas of each of the ministries. Figure 5 depicts the architecture of nutrition coordination in Malawi. For a more detailed mapping of the coordination structure for nutrition, see Figure 1A in the annex.

Figure 5 Architecture of Nutrition Coordination in Malawi



Source: Authors.

At the district level, there are District Nutrition Coordination Committees responsible for bringing about technical coherence and synergies for all nutrition-related activities. The District Commissioner is responsible for coordinating the different sectors working through extension workers to reach the communities. Currently, consultants are working on integrating the care group model into this structure to ensure that households are reached through this community peer to peer platform. In this model, households in which pregnant or lactating mothers or children under 5 reside are divided into groups of 12 to 14 households. A leader is elected from each group and these leaders are overseen by a promoter. Interventions are implemented by frontline workers with oversight from the leaders.

The private sector is mainly monitored by the Ministry of Industry and Trade, the Ministry of Health, and the Malawi Bureau of Standards, with support from UNICEF. The CHSU lab that conducts monitoring of fortified products is sponsored by the US Agency for International Development (USAID). Further, USAID, Irish Aid, WFP, and other development partners support the National Fortification Alliance and fortification capacity building and monitoring through LUANAR. The Malawi Vulnerability Assessment Committee (MVAC) is responsible for food security assessments. There has been a gap in nutrition monitoring with recommendations now in place to include nutrition indicators in the MVAC assessments. Further, rather than only monitoring trends in the major nutrition outcomes (stunting, wasting and underweight), it has been suggested to include indicators on consumption patterns to address the unchanging low quality of diets.

Food security, on the other hand, is located within the Ministry of Agriculture, Water and Irrigation Development in the Agriculture Planning Services department. The food security unit has the mandate

to coordinate various sectors involved in food security activities, provide food security information on food requirements and availability at national and subnational levels. At the district level, the District Agriculture Development Officer is part of a District Agricultural Extension Services System (DAESS) with coordination structures at District, Extension Planning Area and Village levels. Increased efforts are in place to enhance nutrition-driven agriculture in MoAIWD to improve nutrition outcomes. For a detailed mapping of the coordination structure for food security in Malawi, see Figure 2A in the annex.

Table 4A in the annex details the strategies, key programs, and main roles and responsibilities of the main food security and nutrition stakeholders, including those in government, UN organizations, other bilateral and multilateral development partners, civil society organizations, research organizations, private sector, and farmer organizations.

Knowledge, capacity, and action gaps

Although several policies and strategies frame food security and nutrition in Malawi, there are several knowledge gaps that have implications for the efficacy of policy interventions. The following section highlights some knowledge gaps that exist in terms of research and policy and also highlights barriers to policy implementation.

Knowledge gaps

In the last two decades, Malawi has experienced severe food shortages that have exacerbated food insecurity and have resulted in increased mortality particularly for women and children (WFP 2015, Menon 2007) Significant contributors include limited agricultural diversification, high inflation, environmental degradation, , an increase in frequency and intensity of weather shocks. Climate change has not only had an impact on productivity but also has reduced the resilience of Malawian communities, with significant implications for food security and nutrition in Malawi.

Coping with Shocks

With increasing weather variability owing to climate change, more research is needed to identify current positive and negative coping mechanisms and the effectiveness or danger of these coping mechanisms to help determine how resilience can be enhanced before, during, and after a shock both at the national and community level (GoM 2015).

The designs of early warning systems of food insecurity and inadequate dietary intake that can reach remote areas is critical, along with systems and mechanisms for timely dissemination of information during disaster periods. Weaknesses in the dissemination of information and mistimed or absent government response has protracted food insecurity during times of disaster. Credible data that is collected frequently can have an impact not only on monitoring and evaluation and by providing insight on the impact of policy interventions, but also it can assist in tracking progress toward nutrition goals and serve as an early warning system for food insecurity and pending shocks. The Malawi Vulnerability Assessment Committee (MVAC), which monitors food security in Malawi, is the recognized mechanism for early-warning data collection and coordination of action. Thus strengthening the MVAC in terms of inclusion of nutrition indicators, quality and timeliness of data, improved information sharing, and increased accuracy of targeting is critical.

Further, there is need to investigate cost-effective technological innovations and explore new technologies for collection, dissemination, and management of data and information dissemination. There is also a need to investigate how existing structures can be used to collect data, for example

establishing monitoring systems in schools (Babu 2013; GoM 2015). Recently, Malawi was awarded \$12.3 Million by the Green Climate Fund Board to scale up early warning systems and use of modern climate information. This funding presents an opportunity for Malawi to better organize and coordinate the various food security and nutrition surveillance systems across the country.

Developing agriculture and food systems for nutrition and health

Agriculture and food systems are increasingly being promoted as mechanisms for improving food security and nutrition. Moreover, there is limited concrete evidence on the impact of agricultural activities on nutritional outcomes in Malawi (Meerman et al. 2015). As Malawi's agriculture sector in increasingly focused on measures to transform and commercialize a largely subsistence-based sector, the implications of developing food systems that deliver on nutrition is highly relevant, especially considering the country's high rates of child stunting (Aberman and Roopnaraine 2015).

As such, more research is needed on understanding how the agriculture pathway can impact nutrition in Malawi. To clarify and strengthen this link, better district specific disaggregated data is needed. The data disconnect—where nutrition and health data tend to be collected using separate and non-comparable surveys to those used to collect data on food and agriculture—poses a major stumbling block to investigating agriculture-nutrition linkages in most countries (Gillespie, Harris, and Kadiyala 2012; Meerman et al. 2015). Some key issues for investigation are:

- Diversification is frequently discussed and promoted in Malawi, but what to diversify and how to ensure an impact on nutrition is not clear.
- A greater understanding is needed on how to strengthen and leverage markets and value chains to promote availability and demand of more diverse and nutritious foods, and for more incomeearning opportunities.
- Gender mediates the pathways between agriculture and nutrition. Furthermore, gender disparities lie at the heart of chronic undernutrition. Some key aspects for further research include:
 - Improving women's productivity in agriculture such as choice of crops and small livestock
 - Addressing women's time constraint to ensure adequate child care and feeding of children and the whole family
 - Addressing pervasive undernutrition of women and adolescent pregnancy that ensures the vicious cycle of undernutrition continues
 - Intra-household decision-making on the utilization of foods and share of meals for each family member

Improving systems to collect, compile, organize, and disseminate information

Research institutions and development organizations have evidence-based solutions to many of the above-mentioned challenges. Greater coordination and knowledge management is needed to compile and organize important data and information, including research, which can inform policy and implementation in Malawi. There are opportunities for tertiary institutions in Malawi to conduct research and provide evidence to inform policy making. For instance, experts at Lilongwe University of Agriculture and Natural Resources (LUANAR) are often engaged to provide support to policy makers. There is an even greater opportunity for government to engage these and other institutions in conducting research that can inform the development agenda and can be applied for real world impacts.

Additional knowledge gaps

Other knowledge gaps for food security and nutrition in Malawi include

- (1) Investigating how to scale up aquaculture and the implications of aquaculture for nutrition and poverty.
- Understanding socio-cultural constructions of gender and how to integrate men into gender programming for improved food security and nutrition program outcomes (Yeboah et al. 2015).
- (3) Understanding the causes of obesity and overweight in Malawi and their contribution to non-communicable diseases (Segula 2014).
- (4) Agriculture-nutrition research and promotion of indigenous sources of foods (insects, crops and plants)

Policy gaps

Estimates from International Food Policy Research Institute (IFPRI) based on the National Statistics Office's Integrated Household Surveys indicate that the most vulnerable families have been bypassed by recent reductions in income poverty, leaving them that much more vulnerable to rising food prices and inflation (Pauw et al. 2015). Policies must address this issue to ensure the poor and vulnerable are not left behind and that progress is accelerated toward eliminating hunger and undernutrition.

A significant policy constraint to building resilient agriculture and food systems is the tendency to invest resources in life saving seasonal humanitarian action when a significant portion of the food insecurity and undernutrition is chronic, and therefore requires sequenced and complementary programming from emergency/humanitarian to development/resilience type

Further, more coordination is needed downstream between actors involved in achieving food security and nutrition. Several ministries implement food security and nutrition activities. However, there is a lack of coordination and clarity on objectives for the desired nutrition outcomes, resulting in unmeasurable impact, duplication and often fragmentation of programs with unmatched resources, timelines and geographical coverage. There is a need to investigate how food security and nutrition activities can be better coordinated and monitored—to this end, continued leadership and coordination capacity, with clear terms of reference will help.

The Department of Nutrition, HIV and AIDS has developed a useful model for the coordination of nutrition activities in various sectors. This model could serve as a platform or blueprint for multisectoral coordination of food security activities. Although some weaknesses reduce the efficacy of the model, including the limited capacity and influence of nutrition officers in their various departments, nutrition-sensitive programs are gaining traction. The DNHA, through the Scaling up Nutrition Framework, monitors implementation of nutrition activities and funding by NGOs in various districts to ensure that high impact nutrition activities framed in the Nutrition Education and communication strategy are rolled out countrywide (Babu et al. forthcoming).

Additional policy gaps include

Lack of a legislative framework in the form of a Food Security and Nutrition Act needed to
increase accountability and people's ability to exercise their right to food (de Schutter 2014)—
though the Food and Nutrition Bill is soon expected and offers a positive step for accountability.

- Weak food security and nutrition monitoring systems that can provide data and evidence to inform policy (Babu 2013).
- Need to improve policy stability and continuity through regime changes as well as evaluation and reform of some policies, including improving the uptake and integration of research into policy (Babu et al. forthcoming).
- Need to further strengthen multistakeholder platforms for information sharing, knowledge, and research exchange.
- Need for a repository of knowledge and experiences that can inform policy and implementation while reducing duplication of existing work.

Implementation gaps

Malawi ranks third from the top on the Hunger and Nutrition Commitment Index, which measures the political commitment of 45 developing countries to addressing issues of hunger and nutrition (te Lintelo et al. 2015). However, several challenges exist in terms of operationalizing policies. Some setbacks include weak legislative frameworks to support implementation, enforcement, and accountability for policy commitments, slow progress in reviewing policies and weak systems to monitor food security and nutrition activities. Some of these challenges are exacerbated by the unpredictability of policy during changes in government. Often when a new government takes power, policies and policy interventions are delayed or discontinued and some projects remain unfinished. Policy consistencies in regime changes are thus needed.

Many of the implementation challenges relate to vertical coordination and lack of capacity at the district level to bring together the political and technical arms together. Although members of parliament are responsible for engaging with local communities, grassroots concerns voiced by communities or communicate them to decision makers are rarely captured in a manner to bring about change in the community based on their prioritized needs. There is a lack of feedback to communities when they raise issues with their Traditional Authorities and District Commissioners. It is pertinent to understand at which point the chain of information is broken in order to bridge the lines of communication. The local government structure through the District Executive committees is the established platform interfacing between government and its citizens. Alternative channels of communication between different levels of government and communities should be investigated. trengthened

Further, due to weak coordination structures implementers at times have bypassed existing government systems and created parallel systems for interventions, thus failing to strengthen government systems while promoting a duplication of effort. Additionally, better coordination is needed among implementers, who tend to cluster their efforts in the same geographic areas. Furthermore, while many strategies and policies mainstream key cross-cutting issues, there is a need to strengthen the implementation of such policies across all programs that have an impact on food security and nutrition, including, gender, youth, HIV/AIDS and climate change. Finally, good policies are often not optimally implemented; policies and programs suffer from partial implementation, inefficient implementation, or mis-targeting and leakage.

The Agriculture Sector-Wide Approach (ASWAp) was developed to enhance coordination and improve efficiency and effectiveness of service delivery in the agriculture sector. The agriculture budget overwhelmingly supports maize production to the detriment of crop and livestock diversification, and of other activities such as agriculture extension. For example, the Agriculture Sector Performance Report for 2014/15 indicates that 91 percent of all ministerial resources went toward food security (mainly maize productivity) and risk management. The highest allocation of all ASWAp resources for

development partners also went to maize productivity (31 percent) (MoAIWD 2015). The predecessor to ASWAp lacked clarity on nutrition and was less informed on how it would support SUN objectives in Malawi.

Currently, the development of a combined Food and Nutrition Bill is underway, however, increased support from key players is required to hasten the review of the National Nutrition Policy and Strategic Plan as well as the Nutrition Bill. While there has been fairly good momentum to finalize the Bill, providing civic education on the right to food will be a crucial step. Such initiatives can accelerate progress toward reducing hunger and undernutrition in Malawi as it will bring about accountability on the right to food as a human right, a call for leaving no one behind. The Compact2025 roundtable discussions for Malawi can set the stage for initiating mechanisms to bridge existing gaps in creating key evidence informed linkages/pathways in programming, research, policy, and implementation and enhance initiatives that are already on the ground.

SWOT analysis

Malawi has strengths, weaknesses, opportunities, and threats (SWOT) to achieving the goal of ending hunger and undernutrition by 2025. This SWOT analysis includes Malawi's internal strengths and weaknesses relevant to achieving this goal, the external or global opportunities that may be helpful, and threats that may impede progress (Figure 5).

Strengths Government commitment to	Weaknesses Weak agriculture-nutrition linkages Vulnerable groups left behind Relatively weak enabling
ending hunger and undernutrition	environment for private sector
 Opportunities Momentum from MDGs/SDGs and commitment from development partners Highly suitable for investment in diversified food systems 	Threats Environmental degreadation, natural disasters and climate change Population growth/changing demographics Lack of youth in agriculture

Figure 5 SWOT analysis of Malawi's ability to end hunger and undernutrition by 2025

Source: Authors.

Strengths

Malawi has shown signs of economic growth in recent years, which can be for reducing hunger and undernutrition. In terms of policy making, the Government of Malawi is strongly committed to ending hunger and undernutrition through various supportive policies. Further, the government is supportive of the many smallholder farmers who predominate in Malawi—94 percent of rural residents and 38

percent of urban residents engage in agriculture to some extent, the vast majority as smallholder farmers with landholdings of less than one hectare (Jones, Shrinivas, and Bezner-Kerr 2014; Harris et al. 2015). The government has allocated well over 10 percent of its budget to agriculture and has demonstrated a willingness to design and implement programs to support smallholders to increase production through irrigation and crop/livestock diversification. Farmers have benefitted from policies such as the Farm Input Subsidy Program—a success story, albeit an expensive one, perhaps at the expense of other public goods (for example, agricultural research and extension).

Weaknesses

There is a lack of clear evidence about which agricultural approaches will lead to lasting nutritional improvements at scale (Meerman et al. 2015). To strengthen agriculture-nutrition linkages, more data, research, documentation of case studies and project approaches and coordination are needed. Additionally, while Malawi has made some progress in reducing hunger and undernutrition, poor and vulnerable groups are at risk of being left behind. Attention should be paid to demographic and geographic distributions of hunger and malnutrition. Further, better early warning systems and monitoring mechanisms should be promoted and implemented to improve resilience. Further, humanitarian responses should not replace but instead work in concert with long-term development in order to build resilience. Implementation of monitoring and evaluation systems are limited.

Malawi has a relatively weak enabling environment for private sector engagement. According to the World Bank's Ease of Doing Business index, Malawi is ranked 141 out of 189 economies with particular challenges in accessing electricity and credit and in resolving insolvency (World Bank 2016a). Further, inconsistent application and lack of enforcement of rules and regulations have been reported as challenges to doing business (Aberman and Edelman 2014). Harnessing private sector partnerships adds value because of their comparative advantage in market-based approaches and can bring specific capabilities, expertise, innovation and technologies to nutrition efforts. Further, responsible market-based approaches are needed to provide sustained access to effective and affordable nutritious products and services at scale to entire populations. If appropriate consumer education and promotion of nutritious products must reach all families, the private sector can be far reaching in helping families make informed choices when providing nutrition, hygiene, and health to their households.

Opportunities

Greater agricultural diversification in Malawi is already beginning to happen, and should be expanded. Under-utilized indigenous species should be promoted across all Malawi, along with biofortification for a range of crops, including iron beans, vitamin A cassava, vitamin A maize, and orange-fleshed sweet potato (HarvestPlus 2015). There is also scope to improve value chains for nutrition for nutritious local crops, such as groundnut and soybean (Aberman and Roopnaraine 2015). New value chains should be identified, such as those for mango and macadamia nuts. Further, there is great potential to use information and communication technologies (ICTs) to disseminate information on markets, health, nutrition, and other topics, and the scaling up of ICTs is embraced by all sectors. For example, maize markets in Malawi were better integrated following the introduction of ICT-based market interventions (Chowa-Tione 2014).

There are opportunities for greater coordination that can help to maximize synergies across the many sectors involved in ensuring food security and nutrition. For example, agricultural extension can further integrate nutrition into its activities, but greater capacity to implement nutrition-driven policies and programs is needed. The National Agriculture Policy which is being revised can help to promote

diversified diets. This requires a strong agriculture and nutrition strategy with adequate funding for implementation.

Threats

The threat of natural disasters is exacerbated by the ongoing process of climate change. The recent severe food shortages are clear illustrations of this threat. Further, evidence shows growing disinterest in agriculture-based livelihoods among the youth in Malawi and broadly in Africa south of the Sahara. This disillusionment raises concerns for the future of agriculture as it can lead to higher rural to urban migration, unemployment, and lowered agricultural productivity. Engaging youth in agriculture by making agriculture a business opportunity involving ICT and making it financially attractive could help stem this threat (Mapila 2014). Additional threats to Malawi's food security and nutrition include urbanization, high rates of population growth and related increasing land scarcity, pervasive gender issues such as adolescent pregnancy, and the rising prevalence of overweight and obesity.

Five major recommendations

Recommendations resulting from the Malawi roundtable discussion to address challenges, fill gaps, and exploit opportunities to accelerate progress, include:

1. Strengthen capacity at all levels

Strengthening capacity of institutions, organizations, communities, and individuals is critical to accelerate progress. Greater capacity is needed to develop effective nutrition-driven policies as well as to efficiently implement those policies at national, district, and community levels. Further, capacity should be strengthened for champions of food security and nutrition at all levels. National and regional capacities in research, analysis, monitoring, and evaluation should be strengthened and should include education for mainstreaming nutrition across disciplines. More nutrition knowledge is also needed in agricultural research.

To increase capacity at community levels, nutrition education should be integrated with implementation. For example, implementing policies that promote crop diversification can be supported by behavior change interventions that increase demand for diverse and nutritious foods beyond maize. There is a need for increased awareness of food security and nutrition programs. Building capacity for nutrition knowledge by disseminating information of food preparation and nutritional content using media and technology should be explored.

2. "Break the cycle" with holistic, transparent, and market-driven approaches

A pattern of food shortages met with humanitarian responses has emerged in Malawi, and participants agreed that this cycle must be broken. Enacting and implementing the new National Social Support Programme will help enable a stronger multi-sectoral response to food and nutrition insecurity. National and sub-national early-warning systems should be developed and maintained. Timely collection and analysis of agricultural production data and Malawi Vulnerability Assessment Committee (MVAC) estimates should be promoted to inform early action. Further, strengthening MVAC in terms of inclusion of nutrition indicators, improved information sharing, and increased accuracy of targeting is critical.

To develop long-term solutions, market-driven policies and approaches with a focus on nutrition are needed. Maize policies and regulations should be more transparent and consistent, with clear guidelines for MVAC humanitarian response and Agricultural Development and Marketing Corporation (ADMARC)

subsidized sales. The Farm Input Subsidy Programme (FISP) should be revised to be less distortive of the market and also to allow for the promotion of diverse, nutritious crops. Additionally, value-chain approaches that target nutrition outcomes are needed. For example, the private sector should be engaged to help monitor aflatoxin at market level and address food safety issues. Addressing long-term challenges will also require boosting agricultural productivity, mitigating and adapting to climate change, and addressing high population growth.

3. Improve accountability and coordination

The Government of Malawi as well as many key stakeholders in Malawi are committed to ending hunger and undernutrition. However, without clear accountability with defined roles and actions, progress cannot be accelerated. Participants emphasized that food security and nutrition commitments and planning must be championed by Malawians with the government taking an active role. Along with accountability, greater coordination is needed to reduce inefficiencies and accelerate progress. A strong, centralized unit comprised of different stakeholders, including government, private sector, civil society, research institutions, and key groups, can help improve coordination. Joint sector-wide meeting should be held regularly to evaluate progress.

Greater accountability and coordination is needed at the district and community levels between actors involved in achieving food security and nutrition. District Executive Committees (DECs) should be strengthened to coordinate implementation, budgeting, and monitoring and evaluation. Innovative feedback mechanisms should be established between national and district levels. At the community level, chiefs should play a stronger role in implementation, farmers should be organized into groups, and men should also be made accountable for improving household nutrition. Improving coordinating and monitoring of food security and nutrition activities through continued leadership and strengthened coordination capacity with clear terms of reference will be key.

4. Fine-tune and implement nutrition-driven policies

Malawi has developed many strong policies that are well-integrated with nutrition, health, and gender objectives. However, policies and programs can be fine-tuned to become more food security- and nutrition-driven. For example, productive, nutrition-driven social protection can help provide nutritious foods in the near-term while contributing toward long-term agricultural productivity. Further, investments in inefficient agricultural policies that promote solely maize production should be redirected to support more efficient, nutrition-driven policies.

Improving implementation of policies that have an impact on food security and nutrition will be key in accelerating progress. For example, implementation of social protection policies can be made more efficient by installing a united beneficiary registry, and technology should be integrated in service delivery to help reduce leakages. Frontline extension and nutrition workers should be reinstated to help deliver nutrition interventions and training. Implementation structures are weak for gender policy, and more work is needed for all implementers to embrace it. Overall, there needs to be more dialogue, information sharing, and learning around best practices for implementation.

5. Fill data, indicator, and knowledge gaps

There are several key data and knowledge gaps that must be filled in order to generate evidence to inform policies and programs. These include more sex-disaggregated and district specific data and data on individual or household food consumption. More information is needed to carry out a vulnerability mapping to help understand the nature and severity of vulnerabilities to food and nutrition insecurity in

Malawi. More research is needed to understand what it takes to improve implementation and facilitate scaling up of successes in Malawi. For example, rigorous impact evaluations should be conducted to determine the most effective and efficient social safety net transfer modalities in Malawi. Additionally, research on developing food value chains for nutrition and further understanding the role of women's empowerment in agriculture-nutrition linkages in Malawi was emphasized. Further research is needed to develop the agricultural sector, including how to inform investments in a sustainable and inclusive irrigation system, and to improve post-harvest handling along the value chain.

Filling data and knowledge gaps requires clear indicators and a strong research system. First, nutrition indicators must be developed and used at design stage of policies and programs. Knowledge management systems should be developed to consolidate fragmented data across sectors and to share information and experiences with stakeholders to learn from each other and be made aware of who is doing what in Malawi.

Conclusion

Malawi has made some progress in reducing hunger and undernutrition in recent decades. National commitments buttressed by support from numerous partners and stakeholders who work at national and subnational levels throughout the country help advance food security and nutrition. For Malawi to meet its goals and end hunger and undernutrition by 2025 progress must be accelerated, focusing on the underlying causes.

There are many opportunities to fill gaps in research, policy, and implementation that would accelerate progress. Capacity of institutions, organizations, communities, and individuals should be strengthened for better policymaking, implementation, and R&D. Local capacity for nutrition knowledge should also be strengthened and supported by policy and advocacy. Across all levels and sectors, greater accountability and coordination should be built. Food security and nutrition commitments and planning must be championed by Malawians with the government taking an active role, and indicators should be developed and agreed upon in order to quantify, track, and assess commitments.

Fine-tuning and implementing nutrition-driven policies will be key in accelerating progress. Further, to "break the cycle" of food shortages followed by humanitarian response, implementing the new National Social Support Programme and improving the timeliness of MVAC estimates will be critical. Additionally, developing long-term solutions using a holistic, transparent, and market-driven approach—especially in regard to maize policies—will be key. Data and knowledge gaps include the need for more sex-disaggregated data and more vulnerability mapping to understand the nature and severity of vulnerabilities in Malawi. More research is needed to improve implementation and scaling up of successes, and knowledge management systems should be developed to consolidate fragmented data and information across sectors. An improved knowledge management system can help to share information and experiences with each other, thus improving learning while being made aware of who is doing what in Malawi.

Responding to the needs identified at the roundtable discussion, Compact2025 will set up a Knowledge and Innovation Hub in Malawi, ideally within the Vice President's Office in partnership with relevant ministries and stakeholders. The hub will work to support country goals, processes, and programs with demand-driven research and innovation for the purpose of accelerating progress. It will help to collect data, strengthen capacities, and enhance tracking and monitoring and evaluation systems. With a focus on South-South learning, the hub will synthesize lessons and compile, share, and communicate information and best practices within Malawi and beyond. It will also leverage existing networks, including the Regional Strategic Analysis and Knowledge Support System (ReSAKSS). Outputs of the hub will include a freely accessible website, which will be set up so that it can be used by farmers and individuals in local communities through their mobile phones. A follow-up roundtable will be held next year to reconvene stakeholders, evaluate progress, exchange experiences, identify action gaps, and fine-tune next steps toward ending hunger and undernutrition by 2025 in Malawi.

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Annex

Table 1A Indicators for nutrition in the National Nutrition Policy and Strategic Plan

- $\bullet\,$ Reduce proportion of children with low birth weight to <10 $\%\,$
- Reduce prevalence of stunting in children under five years of age to 40 %
- Reduce prevalence of wasting in children under five years of age to <2 %
- Reduce prevalence of underweight in under five children to 15 %
- Reduce proportion of children under five years of age with Vitamin A deficiency (VAD) to 40 %
- Reduce prevalence of stunting in school age children (5-10 years) to 25 %
- Reduce prevalence of wasting in school age children (5-10 years) to <1 %
- Reduce prevalence of underweight in school age children (5-10 years) to <10 %
- Reduce proportion of pre- school aged children with anaemia to 60%
- Reduce proportion of school age children with Vitamin A deficiency to 25%
- Reduce proportion of school age children (5-10 years) with anaemia to 34%
- Reduce median urinary iodine level in school children (μg /litre) to 100
- Reduce percentage of women of child bearing age with malnutrition (BMI less than 18.5) to 6%
- Reduce anaemia in pregnant women to 35%
- Increase in number of Nutritional Rehabilitation Units from 95 to 100
- Increase in number of districts where Community-Based Therapeutic Care (CTC) is offered from 14 to 27
- Increase number of Baby-friendly Hospitals (with nutrition package) from 20 to 48
- Increase number of Anti-retroviral Treatment sites with nutrition package from 60 to 120
- Increase number of prevention of mother to child transmission (PMTCT) of HIV sites with nutrition package from 119 to 300
- Increase number of persons reached through nutrition, care, treatment and support (NCTS) groups from 13,019 to 18,700
- Increase in number of CTC sites from 258 to 381
- Increase outpatient therapeutic program (OTP) sites from 292 to 381

- Increase in number of Supplementary Feeding Programs (SFP) sites from 270 to WFP 381
- People (women, men, children, adolescents) reached with nutrition therapy and clinical care services:
 - Number of children reached by CTC services from 28,648 to 50,000
 - o Person reached with NCTS from 13,019 to 18,700
 - o Number of children reached by OTP services from 21,254 to 50,000
 - o Increase in coverage of therapeutic feeding centres to be determined
 - Increase in coverage of CTC to be determined
 - Increase in number of community-based growth monitoring and promotion groups per village (all 28 districts) *to be determined*
- Nutrition policies, guidelines and training manuals developed and utilized
- Nutrition information system established and timely reports received on at least 70% of the nutrition indicators
- Advocacy for increased resource allocations by Government and donors towards nutrition
 - Government and stakeholders real budgetary allocations towards nutrition activities increased from 0% to 10%
 - o Develop and cost nutrition plan annually and jointly
 - o Nutrition plan developed, costed and implemented
 - \circ ~ Sectors with policies that integrated nutrition increased from 50% to 100% ~
- Nutrition coordination structures available at national (1), sectoral (16) and local authority (28) levels
- Develop a National Research Agenda on Nutrition National Research
- National Nutrition Act developed
- Creation of positions for nutrition in key government ministries and institutions
 - Number of government ministries with sufficient posts created and filled for nutrition from 0 16
 - Number of local authorities with sufficient posts created and filled for nutrition from 0 to 28

Policy/Strategy/Program/ Action	Lead institution	Policy objective(s)	Key outcome indicators and targets for Food Security and Nutrition	Observations
National Development Framew	orks relevant to Foo	d Security and Nutrition		
Vision 2020 Malawi Growth and Development Strategy (MGDSII)	Ministry of Finance and Development Planning Department of Development Planning	Malawians aspire for all members of all households to have access to adequate and safe food at all times of the year to meet their nutritional requirements. The objective of MGDS II is to continue reducing poverty through sustainable economic growth and infrastructure development.	 To achieve this aspiration, the following strategic issues must be addressed: increasing food production; developing irrigation; developing the livestock subsector; improving efficiency of markets; reducing postharvest losses; improving disaster management; improving land utilization and management; economically empowering vulnerable groups; promoting nonfarm income generating activities; and improving nutrition status of the people. Reduce stunting from 47% to 23% Reduce underweight from 12.8% to 6% Increase the % of food secure households from 99 to 100. Maintain cereal availability of 270 kgs Increase quantity of fish captured from 	The MGDS III is currently under development This strategy was developed at a time when Malawi
			 72,000 to 90,000 metric tons Increase number of fingerlings produced from 200,000 to 2,000,000 	was registering high food surplus production levels
National Food Security Policy (2006)	MoAFS	To guarantee that all men, women, boys, and girls, especially under-5s in Malawi have, at all times, physical and economic access to sufficient nutritious food required to lead a healthy and active life.	No indicators mentioned	Policy ended in 2011 and has not yet been revised

Table 2A Policy Priorities and Actions for Food Security and Nutrition in Malawi

Food Security Action Plan (2008)	MoAFS	 Assist in coordinating the FSP with the National Nutrition Policy; Enhance collaboration between the projects and the Government both at central and district level Ensure complementarity and support to the ADP process. 	See Annex B	
National Nutrition Policy and Strategic Plan (2007)	DNHA	 To prevent and control the most common nutrition disorders among women, men, boys, and girls in Malawi by 2012 with emphasis on vulnerable groups. To increase access to timely and effective management of the most common nutrition disorders among women, men, boys, and girls in Malawi by 2012 with emphasis on vulnerable groups. To create an enabling environment for the effective implementation of nutrition services and programs between 2007 and 2012. 		Policy ended in 2012, but is currently under revision
Agriculture Sector Wide Approach (AsWAP)	Ministry of Agriculture, Water and Irrigation Development	 Food security and risk management Commercial Agriculture, Agro-processing, and Market Development Sustainable Agricultural Land and Water Management 	 Average maize yield increased from 1.8 to 3.0 mt/ha by 2015 Postharvest losses reduced from 25% to 13% by 2015 Proportion of farm families consuming diverse diets from 15% (2010) to 55% (2015) Total value of agricultural exports increased from \$580 million to \$800 million by 2015 	National Agriculture Policy forthcoming

School Health and Nutrition Strategic Plan Gender Policy (2008)	Ministry of Education, Science and Technology Ministry of	 To improve the health, nutrition, and lifestyles of children aged 2–18 and to improve the management and coordination of SHN at all levels To establish an effective capacity building framework and to increase public awareness, knowledge, and competitiveness of SHN at all levels To increase women's and 	 50% of schools implement the complete SHN package 100% of schools have adequate safe drinking water 100% of schools with adequate sanitary facilities 100% of learners receive micronutrient supplementation as per guidelines 80% of learners eat breakfast before school and has a 10.00 a.m. snack every day. Reduce vitamin A deficiency in school-age children from 2006 level of 38% to 15% Reduce anemia in school-age children from 2006 level of 54% to 20% Increase % of food secure households from
	Gender, Children, Disability and Social Welfare	other vulnerable groups access to and control over agricultural productive resources and technologies for food and nutrition security - To reduce nutritional disorders among women and children	 67% to 100% Increase per capita cereal availability from 175kg to >270 Increase average maize yields per hectare from 809kg to >3000 Increase number of Gender Agriculture Cooperatives formed and operating from 211 to >281 Decrease % of children who are stunted from to <10% Decrease % of women with nutritional deficiency from 9% to <5%
Nutrition Education and Communication Strategy		 To prevent stunting through promotion of access to diverse food 	
Social Support Policy	Ministry of Economic Planning & Development	 To provide welfare support to those that are unable to construct a viable livelihood; To protect the assets and improve the resilience of poor and vulnerable households; To increase the productive 	

Government and partners cross	s-cutting policies and	capacity and asset base of poor and vulnerable households to move them above the poverty line; and - To establish coherent and progressive social support synergies by ensuring strong positive linkages to influence economic and social policies, and disaster risk management action plans relevant to Food Secu	urity and Nutrition	
Policy	Lead institution/	Objective(s)	Key targets/milestones	Observations
	organization			
National Climate Change Investment Plan (2013–2018)	Ministry of Environment and Climate Change Management	To enhance sustainable and climate-smart agricultural production to meet national and household food security, agroprocessing, and manufacturing raw material needs for both domestic and export markets.		
Fisheries Policy 2012 - 2017	MoIWD – Department of Fisheries	 To increase fish production from capture fisheries and aquaculture To improve fish production from aquaculture To enhanced value addition and quality control To enhanced private sector participation To increased fish consumption 		

Agriculture Sector Gender, HIV and AIDS Strategy 2012 - 2017	MoIWD	- To promote gender equality, prevent the spread of HIV, and mitigate the impacts of AIDS in order to increase agricultural productivity in line with ASWAp priorities.	 Percentage of women and other groups with increased income from agro-based economic activities by 2017 Percentage reduction in the number of food insecure women and other vulnerable groups in the agriculture sector Percentage reduction in malnutrition of women and children and other vulnerable groups at household level
	Ministry of Local Government and Rural Development	 To provide linkages between the central and local governments. To promote an effective system of local governance and development. To provide the policy and legal framework for the efficient and effective operation of local assemblies. 	

Table 3A Mapping of programs and interventions by stakeholder

						Hidden hunger											Ade	quate	intak	e but	worry	/ abou	ıt futu	ire foo	od sup	ply
Stakeholders	Organization	Starvation	Acute hunger	Chronic hunger	Inad	equat	te inta	ike							Semi-adequate	Obesogenic										
			Food Aid	Social cash transfer	Crop Biofortification	Infant and Young	Aquaculture	Nutrition Education	Fortification	School Health and	Hygiene-WASH	Supplementation	CMAM	Maternal and child	FISP		Sustainable	Micro-finance	Livestock production	Crop production	Access to Markets	Infrastructure	ECD	Gender	Climate change	HIV/AIDS
Government	MoAIWD				~	√`	✓	~							√		✓	 ✓ 	✓	✓	✓	✓			✓	
	DNHA					~		~	~	~		~	√	~									~			
	Мон					✓		✓	✓	~	✓	✓	√	√									✓			
	MoGCSW			~		✓																	~	√		
	MoEST					~				~	✓												√			
	ΜοΤΙ								~																	
	MoLG										✓						√	√								
	MoF																√									
UN Agencies	UNICEF			~					~		~	~	√	~									~			
	who																√									
	WFP		~			~		~		~		~														~
	FAO									~																
	WB			~						~																

Multilateral	AfDB																√	√			
/Bilateral Organizations	USAID	✓		~		~	~		√		~						√		~		
	GIZ				~	~		√													
	DFID			✓																	
	Irish Aid		~	~	~	~	~		√	~			✓								~
	EU			√									✓	√			√				~
Research and Technology	Action Aid												✓						√		
Dissemination Organizations ⁴	ADRA												√								~
	Africare													√							~
	College of Medicine									~											
	Chitedze Research St.			✓																	
	CIAT			✓																	
	CIP			✓																	
	IFPRI																				
	FUM																√				
	LUANAR																				
	NASFAM															 ✓ 					~
	Care													✓	~	√	✓		~	 ✓ 	
	СНАІ					~				~	~		✓							✓	~
	CRS								✓					~							~

⁴ The various NGOs working in Malawi include International Center for Tropical Agriculture (CIAT), International Potato Center (CIP), Farmer's Union of Malawi (FUM), Cooperative for Assistance and Relief Everywhere (CARE), Clinton Health Access Initiative (CHAI), Catholic Relief Services (CRS), World Vision International (WVI), Valid International (VI), Concern Worldwide National Smallholder Farmers Association of Malawi, and The Hunger Project.

	WVI										✓						~								~	~
	Save the Childrer	n									✓			~			✓				√					~
	Concern							√			✓		✓	√			~							~		~
	VI								~																	
	OXFAM																~									
	CADECOM																✓		~							
	Feed the Childrei	ı				v														~						
	ICRISAT																✓									
	PLAN										✓							 ✓ 	 ✓ 							
	тнр																✓							 ✓ 		
	Private sector								✓										✓							
Кеу																										
Adequate intake about future su						umpt t food			quate es	and	hou	sehol	ds e	njoy	dieta	ry di	versi	ty, h	owev	ver h	ouse	holds	s may	wor	ry	
Obesogenic inta				ι	Jnba	lance	d die	et and	d may	' inclu	ıde l	nigh c	consu	umpt	ion o	f car	bohy	/drat	es ar	nd fat	S					
Semi-adequate	intake				-	t be a encie		sequ	ence	of sea	ason	al sh	ortag	ges tl	nat re	sult	in la	ck of	dive	rsity	andr	nicro	nutr	ient		
Inadequate inta	ke			0	Consu	umpt	ion is	belc	w the	e nec	essa	ry re	quire	emer	its an	d ma	ay re	sult i	n cor	nsum	ptior	nred	uctio	n		
Chronic hunger									ed at																	
Acute hunger				ŀ	lung	er is e	exper	rienc	ed co	ntinu	ousl	y														
Starvation				ŀ	louse	ehold	s col	lapse	e with	no r	esou	rces	to pr	rodu	ce or	purc	hase	food	ł							
Source: Hendrik	s, 2015.																									

Figure 1A Detailed coordination structure for nutrition in Malawi

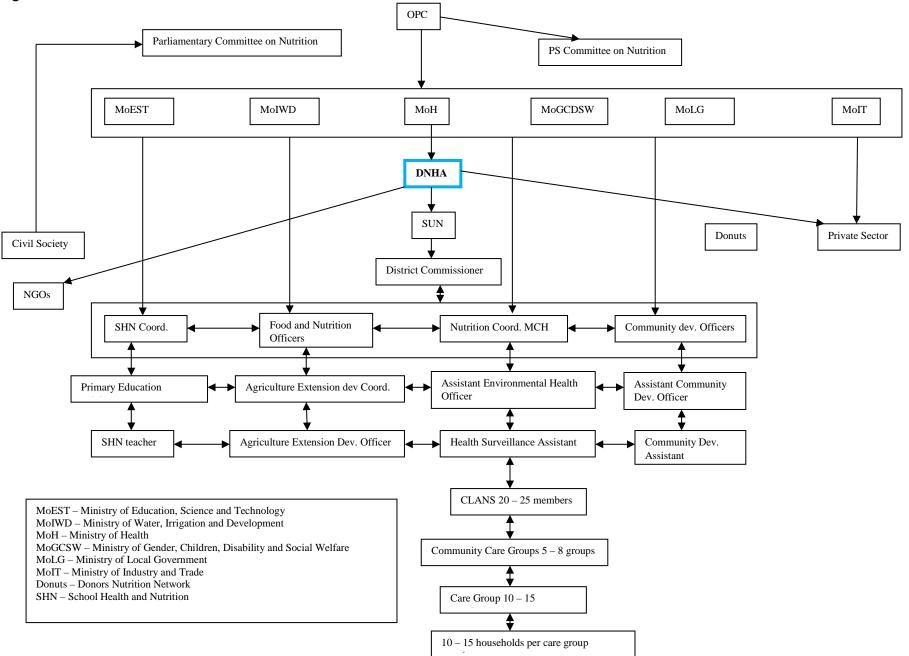
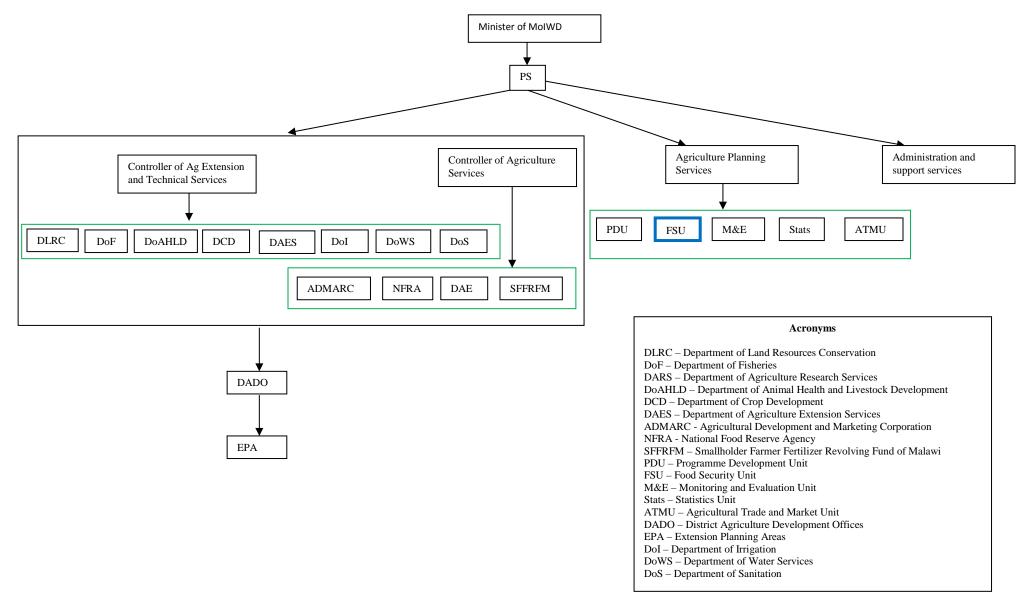


Figure 2A Detailed coordination structure for food security in Malawi



Entity	Strategies	Key programs/action plans	Roles and responsibilities
Government Institutions	5		
Ministry of Agriculture, Water and Irrigation Development	NAP forthcoming AsWAP	 Production diversification Dietary diversification Improving the management of markets and climatic risks Promotion of high value chains Increasing the total value of agricultural exports Promoting increased commercial production of rice, fruits and vegetables, cassava, potatoes, paprika, and chilies primarily for agroprocessing Promotion of dissemination and adoption of sustainable land management practices on agricultural land Promotion of the expansion of sustainable water management Promotion of demand-driven as well as market-and industry-oriented research and extension systems 	
Ministry of Health	Malawi Health Sector Strategic Plan (2011 – 2016)		The DNHA is housed under MoH
Department of Nutrition, HIV and AIDS	National Nutrition Policy and Strategic Plan	 Oversight and coordination of all nutrition activities Promotion of optimal breastfeeding practices Promotion of optimal feeding practices Strengthening of optimal feeding of sick children Promotion of women's nutritional status among the general public Vitamin A supplementation Promotion of food safety and quality Promotion of access to at least one nutritious meal Control of nutrition-related and other noncommunicable diseases 	 DNHA is currently with MoH Provides preventative and curative health services Advises on health and nutrition policy Responsible for the logistics related to essential drugs and regulation of drugs including micronutrient supplements for iron, vitamins Enforce food fortification regulations Promote food and nutrition policies and programs Coordinate, monitor, and evaluate implementation of food and nutrition policies

Table 4A Stakeholder mapping for Food Security and Nutrition in Malawi

		- Responsible for SUN	
Food Security Unit	Food Security Policy 2006		Responsible for coordination, provision of information, and assessment of food security in Malawi.
Department of Water and Sanitation			The Department is responsible for providing policy direction and coordination of the sanitation and hygiene subsector programs. It also provides a regulatory framework for the provision and management of adequate sanitary facilities with handwashing at all functions and gatherings both private and public, where food is provided
Malawi Vulnerability Assessment Committee			The MVAC is responsible for assessing food security and nutrition at household level and providing early warning of areas vulnerable to food insecurity
Ministry of Gender, Children and Social Welfare	Social Protection Strategic	 Distributes cash transfers Women's empowerment programs including micro-finance 	 Provide social protection and primary health care Responsible for women's and adolescent girls' nutritional status
Ministry of Education, Science and Technology	School Health and Nutrition Strategic Plan (2009 – 2018)	 Promoting productive school environments Providing school meals Providing micronutrient supplements Providing nutrition information, education, and communication 	 Assure rights of all parties involved (children, those with special needs, orphans, etc.) Make sure that policies, strategy, and guidelines for SHN are adhered to Carry out interventions in accountable and transparent manner Show resourcefulness and creativity Share information and collaborate with others
Department of Agricultural Research Services		- Biofortification of OFSP and beans	 Development of the biofortified crops Testing and release of new seed varieties
Ministry of Trade and Industry	Water and Sanitation Sector Strategic Plan (WSSSP)	- Food fortification program	 Collaborate with MOH on monitoring the imports of fortified food, particularly lodized salt Monitor the compliance of the food processors for the meeting the standards
Ministry of Local Government	Local Government and Rural Development Output Based Budget	 Rural Livelihood Support Program Rural Growth Centre Construction of Markets Rural Livelihood and Economic Enhancement 	

		- Rural Infrastructure Development Programme	
Department of Disaster Management Affairs (DoDMA)	National Disaster Risk Management Policy (2015)	-	The Department of Disaster Management Affairs is the Government of Malawi's agency responsible for coordinating and directing the implementation of disaster risk management programs in the country in order to improve and safeguard the quality of life of Malawians, especially those vulnerable to and affected by disasters.
Ministry of Information and Civic Education		-	
UN Agencies			
UNICEF			UNICEF is involved in Infant and Young Child Feeding and maternal and child health programs. They are also involved in the sugar fortification program.
World Health Organization (WHO)			 WHO is involved in School Health Programmes only and these are mainly medical interventions The WFP also supports the Malawi Vulnerability Assessment Committee which is responsible for food security and nutrition surveillance.
World Food Programme (WFP)		 Food Aid Sustainable Livelihood Programmes School Feeding 	WFP is involved in sustainable livelihood programs for strengthening resilience, food aid programs as well as programs that link farmers to agricultural markets.
Other Bilateral and Mu	ultilateral Development F	Partners	
World Bank (WB)			The World Bank provides financial support and is involved in safety net programs
African Development Bank (AfDB)		 Smallholder Crop Production and Marketing Project (SCPMP) Agriculture Infrastructure Support Services (AISP) 	well as improving farmers access to markets
USAID		 Development Credit Authority (DCA) Market Linkages Initiative 	
GIZ			In terms of FS&N, GIZ is involved in nutrition education for women and children under 5, crop

Civil Society Organizat	ions: NGOs ³		diversification, support to value chains of selected crops, agricultural innovations, school feeding programs and social protection.		
International and National NGOs Research Organizatior	NS		 International NGOs such as Concern Universal, Concern Worldwide, CHAI, WVI, CRS, Valid International, Save the Children, etc. are active in Malawi in the area of food security and nutrition There are also local NGOs that operate in the area of FS&N, the most active are CISANET and CISONA. CISONA specifically tracks the national budget to investigate how much of the national budget has gone toward nutrition activities. 		
There are international research and technology transfer organizations (e.g. CGIAR Centers- CIP, CIAT etc.) and local research institutions that include LUANAR, Chancellor's College and College of Medicine who are all active in FS&N research.			 The international research organizations facilitate funding and dissemination of research products The local research institutions conduct both quantitative and qualitative research that informs decision makers at national level 		
Private Sector Operators					
There are several private sector operators in Malawi including manufacturers who must comply with legislation to fortify products.					
Farmers Organizations					
Farmers Union of Malawi is the umbrella body for farmer's organizations in Malawi. Their main objective is to create a conducive policy environment for farmers in Malawi.					

³ NGOs in Malawi operate mainly at district level and their coordination is managed by DNHA