

Mapping Policy Responses to Food Systems Transformation in Malawi

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Background and Introduction

Malawi is undergoing policy reforms which may influence food systems transformation directly or indirectly. The Government of Malawi had consistently committed securing food and nutrition for all Malawians through the formulation and implementation of various policies and reforms, especially in the agricultural sector. Such efforts are expected to significantly contribute to food security and nutrition (FSN), poverty alleviation, foreign exchange, employment and improved livelihoods in Malawi. Previously, the country's agricultural policies and investments had focused on maize production as the staple crops to guarantee FSN, with tobacco production being the major source of foreign exchange earnings (Dorward and Chirwa, 2011). While the former is dominated by the small-scale producers, the estate or large-scale farmers dominate the latter. However, the recent emergence of the medium scale farmers in Malawi reflects the potential of this group in bridging the gap between the two production extremes and also providing opportunities to upgrade the existing traditional food supply systems (Jayne et al., 2014).

FSN is the basic outcome of food systems and is strongly linked to agriculture. Transforming food systems requires the integration of various sectors and multi-stakeholder collaborations because FSN is multifaceted (GoM, 2018).

Food systems encompass the elements, actors, activities (environment, people, inputs, infrastructures, institutions, production, marketing and trade, processing, distribution, preparation, consumption and disposal of food waste) and outcomes (HLPE, 2017; Global Panel, 2016). The outcome of the interactions in the food

Key Findings

- The dominance of traditional food systems may not be able to sustainably address the food and nutrition needs of an increasing Malawian population.
- Due to the multifaceted nature of food systems, not only food and nutrition policies and or agricultural policies influence food systems. Other relevant sectoral policies can also have a significant positive or negative influence on food systems.
- Although some policies may be considered indirectly linked to FSN or may not have FSN as one of its policy goals, they could inadvertently constitute a driving force to transforming the food system.
- Most policies in Malawi addressed food availability but less focus on accessibility and affordability which has implications on achieving FSN.
- Policy coherence and multi-sectoral policy approaches to transforming food systems are crucial in achieving sustainable food systems outcomes (FSN, socioeconomic and environmental outcomes).

system includes food and nutrition security, environmental and socio-economic outcomes. Though FSN constitutes the primary outcome of transforming a



food system (Van Berkum et al., 2018), the latter extends beyond agricultural production systems but are both inseparable.

Transformation of the food system in Malawi is required to sustainably address socio-economic and environmental challenges. Furthermore, the food system should advance from just providing enough food to supplying diverse nutritious and healthy diets (IFPRI, 2018). While trends in the FSN situation suggest a declining share in malnutrition, the proportion of the Malawian population that is food insecure remains high (USAID, 2018). This condition suggests existing food systems in Malawi have not ensured a completely food secured population. Transformation of the food system in Malawi is needed to address the multifaceted problems of FSN, malnutrition, diet-related health problems and the challenges emanating from increasing population pressure, changing consumption patterns and climate conditions. Based on the aforementioned and the ongoing policy reforms in Malawi, the question is how effective can policies transform the food system in Malawi?

Purpose and method of the Analysis

The purpose of the analysis was to assess policy responses and connectedness to the elements of food systems transformation in Malawi. The study mapped policy linkages with the elements of food systems (food supply chain, food environment, consumer behavior and the drivers) transformation in Malawi by adopting the conceptual framework for food systems in HLPE (2017). Such mapping would provide a holistic visual representation of food systems transformation process and how various sectoral policy interactions affect one another. Two groups of policies were identified for mapping; 1) policies (documents) that include food security and or nutrition as one of its policy goal or priority areas, and 2) policies (documents) that do not include food security and or nutrition as one of its policy goal or priority areas but addressed at least one component of food systems. These policies were grouped into two categories. The first is referred to in this brief as policies directly linked to FSN and the second is policies that are indirectly linked to FSN. While the agricultural sector is closely related to FSN and much focus may be placed on achieving FSN in a food system, other sectoral policies also influence the food system. These include environment, health, social development, energy, water, sanitation and hygiene, gender, education, macroeconomic (fiscal and monetary policies) and

finance (HLPE, 2017; GoM, 2018). Therefore, for the purpose of this study, food security and or nutrition policies, agricultural policies and or investment plans and other relevant sectoral policies were investigated. A total of 65 policy documents in Malawi, spanning the relevant sectors influencing food systems, were mapped and analyzed.

Descriptive analysis was used to summarize the findings from the mapping process. Furthermore, a situation analysis using SWOT (strengths, weaknesses, opportunities and threats) was conducted based on the results from the mapping analysis and evidence from literature reviews.

Policy Linkages with components of food systems in Malawi

Results of the mapping analysis indicated that 52% of the mapped policies were directly linked to FSN. All the investigated policies - whether directly or indirectly linked to FSN - addressed at least one area of food systems intervention. This confirms that FSN is a priority in Malawi's development agenda. Based on the interconnections of policies with the elements of food systems transformation, the mapping analysis revealed that majority of the identified policies (91%) were connected with the drivers element the food system, followed by the food supply chain (68%), consumer behavior (45%) and food environment (28%). The findings suggest the need for increased sensitivity to how various policies may affect food systems transformation and the need to balance policy influence across food systems components in meeting FSN policy targets in Malawi.

While previously much focus had been on policy interventions in improving the food supply chains, the results indicated that though some policies may be considered indirectly linked to FSN or may not have FSN as one of its policy goals, they could inadvertently constitute a driving force to transforming the food systems. Due to the multi-sectoral nature of food systems, all relevant sectoral policies can equally have a significant positive or negative influence on a food system which necessitates the need for policy coherence across sectors towards a common goal. Furthermore, adequate periodic monitoring and evaluation is crucial to realign efforts and interest in situations where the stakeholders have divergent interest and plans.

Drivers of Food systems transformation

Based on the identified sub-elements of the drivers of food systems, results indicated that innovation, technology and infrastructure (59%), financial inclusion, systems development and resource mobilization (56%), climate change, natural resource and risk management (49%) were the main drivers highlighted in various policy documents. Conversely, food prices and volatility (32%), population growth, urbanization & migration (10%), emergency and food crises and aids (5%) were issues of lower priority in the policies (Fig 1). Given the roles of financial inclusion (risk mitigation, socio-economic empowerment & development) and its spillover effects in an economy, efforts aimed at driving food systems transformation in Malawi should consider the expansion of innovative agricultural and rural finance services and products and the development of innovative financing mechanisms for food systems transformation.

Food Supply Chain

Results of the mapping analysis of (Fig 2) revealed that most (86%) of the policies that focused on the food supply chain in Malawi emphasized production systems, followed by processing and packaging (55%), markets (48%), input supply (45%) and storage and distribution (25%). The results imply the need for policies to address agricultural value chain development and financing of its implementation. While the development of the production system is crucial, it is not synonymous with the development of the entire food supply chain system; other elements of the food supply chain are equally important and require policy attention. According to Fanzo et al., (2013) most national policies in Malawi had focused on agricultural production and diversification. While improving the production system is important, failure to address other components of the food supply chain may have adverse effects on other elements of the food system. This could frustrate efforts geared towards FSN in terms of availability, accessibility, utilization and stability.

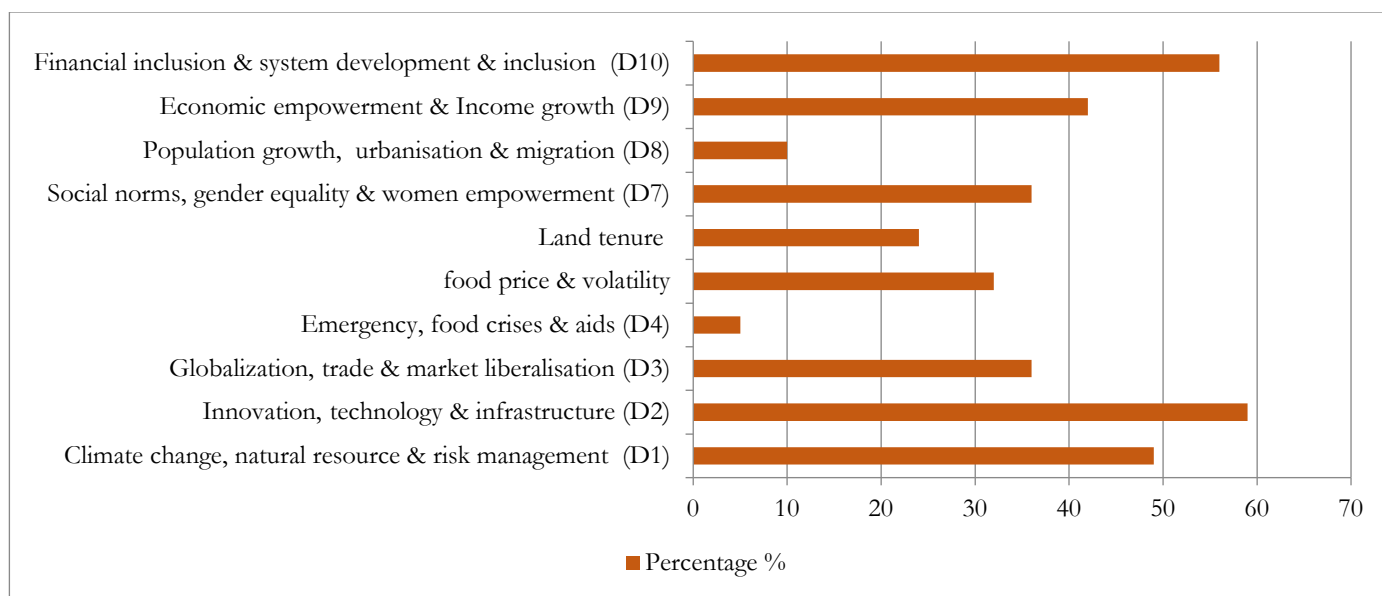


Fig 1: Policy linkages with the Drivers of Food Systems Transformation in Malawi.

Consumer Behavior

Results of the mapping analysis (Fig 3) based on the sub-elements of consumers' behavior indicated that the majority of the policies addressed strengthening consumer awareness, education, knowledge and skills on FSN (59%) followed by diet diversity (55%) and improved feeding practices, food preparation and hygiene (55%). While the least addressed were food quantity and purchase (28%) and consumer food

acceptability and quality (21%). Consumers, play central roles in the sustainability of food supply chains and the entire food system through their behaviors in making food choices. Besides having a significant influence on food waste, they also have the ability to reward more sustainable food systems or penalize the unviable ones (Rohm et al., 2017; Grunert, 2011). Results, therefore, indicate the need for policy interventions in making quality food acceptable and affordable to Malawians

which imply the need for policies to strengthen consumer food quantity, purchase, acceptability and quality for improved FSN.

Food Environment

While food environment had the weakest policy linkage (28%) out of the identified components of food systems transformation, results of the mapping analysis based on the sub-elements of the food environment (Fig 4) revealed that, 89% of the policies linked with food environment addressed food standards, safety, quality control, sanitary measures and certification.

This was followed by promotion, advertising and information (39%), availability and proximity (22%). However, the least addressed of the sub-elements of food environment was economic access or affordability (11%) which supports the earlier results from mapping the sub-elements of consumer behavior. This result indicates that although achieving FSN ranks high on Malawi's development agenda, efforts did not equally address the FSN components. The policies emphasized food availability (production) with less focus on ensuring economic access and or affordability.

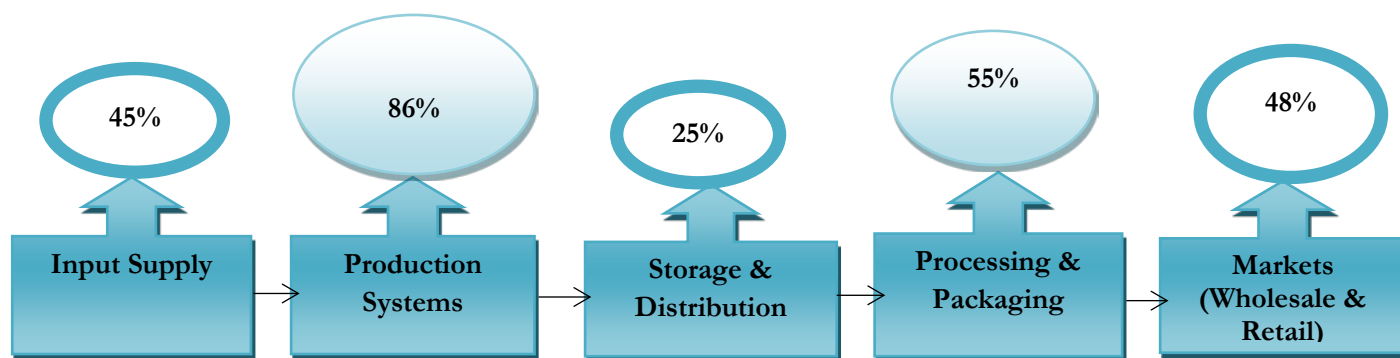
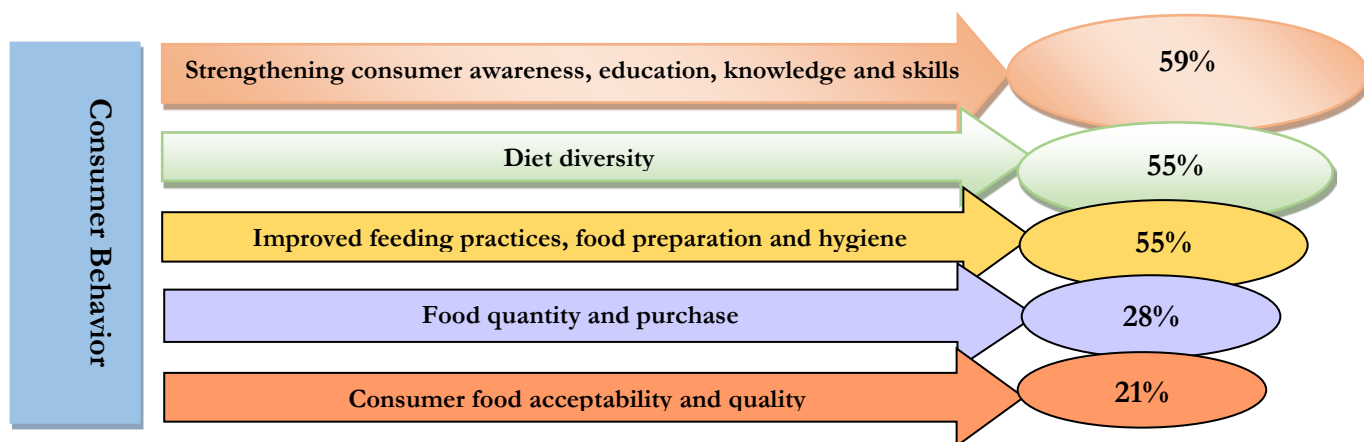


Fig 2: Policy linkages with the Food supply chain component of Food Systems in Malawi



3 Fig: Policy linkages with the Consumer Behavior Component of Food Systems in Malawi

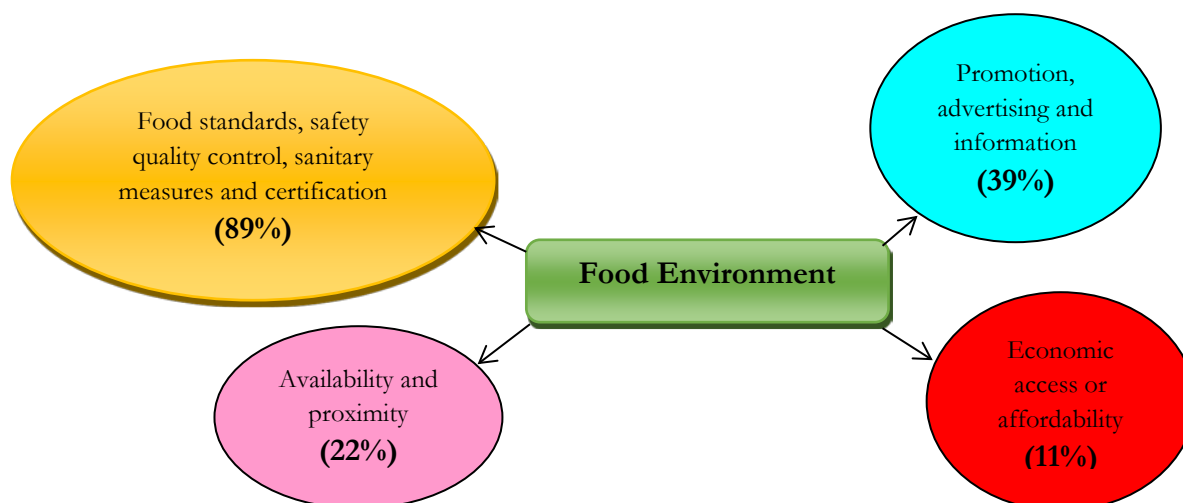


Fig 4: Policy linkages with the Food Environment in Malawi

SWOT Analysis of Changing Food Systems and Financing implications in Malawi

In order to analyze the food systems transformation situation in Malawi, the study also used a SWOT analysis. This approach is useful because it helps to develop strategies for planning. While SWOT is based on a simple analytic framework affected by internal (strengths, weaknesses) and external (opportunities and threats) factors, the typical strategies that can be derived from a SWOT analysis include:

- Strength (S) – Opportunities (O): Use strengths to take hold of opportunities. This is beneficial in achieving objectives.
- Strength (S) – Threat (T): Use strengths to minimize threats
- Weaknesses (W) – Opportunities (O): Use opportunities to address weaknesses
- Weaknesses (W) – Threats (T): Develop strategies or defensive mechanism to address vulnerable areas of weakness. This is detrimental to achieving objectives.

Based on the result on the SWOT analysis (Table 1), the financing implications for each element of the food systems include:

Food supply chain: To transform the food supply chains in Malawi, investments are required to facilitate market linkages between smallholder and medium scale supply chains, agribusiness and export market development. These will further enhance food systems transformation in achieving FSN. On the other hand, failure to diversify production, exclusion of smallholders

in the process of food systems transformation and non-mitigation of climate change effects will frustrate efforts.

Food Environment: Investments to facilitate market linkages between formal and informal markets are crucial to enhancing food distribution between rural and urban areas. Furthermore, contract farming, agricultural value chain finance investments and capacity building of actors in post-harvest handling and processing techniques will help to reduce food loss. Also, investment in nutrition & health programs, promotion of monitoring & control of food standards and certification would help transform food systems.

Consumer behavior: Investments are required to promote innovations in enhancing the access and usage of formal financial services. Increased access and usage would help to reduce exposure to risks, smoothen production and consumption in situations where producers are also consumers, enhance incomes levels which influence the ability to purchase other food types not produced.

Drivers of Food Systems transformation: Investments in technological innovations to enhance food trade (international) and distribution (local), promotion of gender-sensitive agriculture and nutrition policies & finance, digital financial inclusion to facilitate access to modern technologies and trainings are required for food systems transformation.

Policies: Though achieving food security and or nutrition are different policy goals, the terms are often used interchangeably. There is a need to distinguish

between these terms in policy documents because their interpretation as the same may lead to the underfinancing of policy goals. We found this important because most Malawi's policies aimed at addressing FSN focus more on nutrition than food security. Hence, there is a need to balance across goals.

Furthermore, investments will be required to implement government commitments to multi-sectoral approaches in tackling FSN challenges & export diversification. Also, impact assessment of the policies and auditing will help to identify funding gaps and lapses. Likewise the mobilization of funds across sectors based on the financial requirement of a policy agenda should be adhered to.

Financing: No single actor or sector (agriculture) would be able to transform the food systems because of the high financial requirement. Hence, there is a need for multi-stakeholders to develop innovative financing mechanisms in mobilizing resources to effectively and efficiently finance food systems transformation based on strengths and opportunities while also developing mechanisms to address the weakness and threats of food systems in achieving FSN in Malawi.

Conclusions and recommendations

The food systems in Malawi are dominated by the traditional food systems, which may not be able to address the food needs of an increasing Malawian population sustainably. However, the emergence of the medium scale farmers in Malawi reflects the potential of this group in bridging the gap between the existing production extremes (small-scale and estates) which also provides opportunities to upgrade the traditional food supply systems. However adequate investments are required to transform such food systems to achieve FSN.

While most policies in Malawi constitute a driving force to transforming the food systems, policies aimed at developing the food supply chains, placed much focus on the production systems and less on other components of the food supply chain. This has significant implications on the extent of food loss and waste in a food system. The production system is only a subcomponent and not synonymous with the entire food supply chain system. Therefore, failure to equally address other components of the food supply chain may negatively affect the country's state of value chain development, trade, supply and demand for value-added products and diet diversity which also influences food system outcomes.

Furthermore, there is a need for policies to equally prioritize every element of the food systems. While food environment had the weakest policy linkage out of the identified components of food systems transformation in Malawi, economic access or affordability had the weakest policy linkage among the sub-components of food environment which indicate food access received less policy attention compared to food availability in Malawi. Therefore, there is a need for policy efforts to strengthen the economic access of Malawians to quality acceptable and safe foods. Lack of economic access to food could increase the vulnerability of the population to food insecurity, malnutrition, hunger and poverty which could frustrate the country's efforts to achieve sustainable development. Though agricultural production is central to the food supply component of food systems and influences the extent of production and consumption diversity, food systems extend beyond the agricultural sector and require multi-sectoral collaborations.

Efforts aimed at transforming the food systems do not imply neglecting the existing traditional food systems which are dominated by smallholders in the supply chain. The smallholders are the backbone of the Malawian agricultural economy, and their contributions are central to the country's economic growth. Furthermore, they constitute the foundation of FNS whether directly or indirectly (HLPE, 2013). Therefore, the exclusion of smallholders in the process of transforming food systems would have serious adverse effects on food systems outcomes than expected. Similarly, traditional food systems have intrinsic values which could be explored to provide insights on innovative ways to sustainably transform food systems.

The need to maximize the strengths and opportunities while minimizing the weaknesses and threats of traditional food systems to achieve important outcomes is therefore crucial in transforming food systems. Furthermore, every element of the food system needs to be adequately supported by policies, investments and enabling institutional environment in order to thrive. Insights from this study reveal policies are yet to fully respond to food systems transformation in Malawi and the need for policy coherence, multi-sectoral and multi-stakeholder partnerships and investments (which extends beyond public-private partnerships) to achieve food security and nutrition in Malawi.

Table 1: SWOT Analysis of Food Systems Transformation Situation in Malawi

	Strengths	Weaknesses	Opportunities	Threats
Food supply chains	Emergence of medium scale farmers, Subsidization of farm inputs & investments to modernize traditional food supply chains, dominance of production systems in the food supply chains ensures food availability	Dominance of small-scale farmers, much emphasis on production with diversification, inadequate market infrastructure and agricultural value chain development	Trade liberalization , Agricultural value chain development, market linkages, enabling policy environment, agribusiness development and integration with multi-sectors	Natural disaster & climate change effects, Risks & land degradation, exclusion of smallholders in food systems transformation
Food environment	High policy focus on ensuring food standards, safety, quality control, sanitary measures and certification. Mix of formal and informal markets	Dominance of informal markets & remoteness to formal markets. Poor economic access and food affordability	Increasing awareness on food quality, safety standards & certification, market linkages	High level food loss and waste
Consumer Behavior	Increasing consumer education on food choices, feeding practices and diet diversity which could influence type of foods produced by the system	Low incomes, high poverty levels & malnutrition , limited access & usage of formal finance	Positive demand for diverse nutritious diets, high value products and increasing spread of supermarkets	Global food crises and hunger, Poor supply chain response to increasing food demands and food price volatility
Drivers of transformation	High policy focus on innovation, technology & infrastructures, financial inclusion, systems development & resource mobilization, climate change, natural resource & risk management	Low adoption of technology, land tenure and systems development,	Increased demand for diverse diet & value added products, agricultural & rural finance innovations, globalization	Increasing population growth, migration, pressure on land and food crises, cultural norms & traditions
Policies	High government commitment to nutrition security policies goals & investments	Less policy focus on food security goals, poor monitoring and evaluation, over financing of some policies at the expense of others	Trade liberalization & multi-sectoral approaches	Unstable policy & enabling environment
Financing	Multi-stakeholder partnerships, Donor aids, Foreign direct investments, high budget allocation to agricultural investments	Weak enabling environment for Private sector investments, Poor coordination of MSPs, Power Asymmetries, Transaction cost and performance assessment	Innovative financing mechanisms, financial inclusion & systems development	Global financial crises, policies & institutional changes, high financial requirements, inflation, high interest rates & exchange rates

Source: Authors'

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This study was made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the Feed the Future initiative. The contents are the responsibility of the study authors and do not necessarily reflect the views of USAID or the United States Government.

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Published by the University of Pretoria and the Department of Agricultural, Food, and Resource Economics, Michigan State University, Justin S. Morrill Hall of Agriculture, 446 West Circle Dr., Room 202, East Lansing, Michigan 48824, USA