

## **FS-TIP** Brief Malawi

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Canada



# **MALAWI FOOD SYSTEMS DIAGNOSTICS**

## 1. Introduction

Food system involves the actors and their interlinked activities as well as factors influencing their behavior from production all the way to consumption or utilization. Several factors affect and or influence a country's food system including food availability and accessibility, population growth, availability of resources, infrastructure, climate change, among others.

Malawi is predominantly rural, and agriculture is the mainstay of the economy. Available data shows that the country is challenged by multitude of factors including food insecurity, poverty, and vulnerability. This policy brief aims at providing analysis on the status of key factors that shape food system in Malawi by focusing mainly on the recent performance (2010 - 2019). The drivers covered includes environmental and climatic conditions, global trade, agriculture, vulnerability, demographics, infrastructural issues, and science and technology.

## 2. BR outcomes

Malawi participated in both the first and second Biennial Review (BR) exercise, a mechanism established for a regular reporting of African countries progress for implementing the Malabo Declaration around 7 key agriculture and food systems areas: renewed commitment to agriculture led growth, raising public investment in agriculture to boost growth, ending hunger, halving poverty, expanding trade, climate resilient agriculture and strong mutual accountability systems. The country reported on the majority of the 47 BR indicators that are formulated to evaluate the performance of Africa in achieving agricultural growth and transformation goals. During the first (or 2017) BR exercise, Malawi was one of the 20 countries that were on track to achieve the Malabo target with an overall score of 4.92 out of 10 which is higher than the benchmark score of 3.94. In fact, Malawi fared better than the average for COMESA (3.94) and Africa (3.6) (Figure 1). Moreover, the country ranked as the 6th best performing from the 47 countries that reported during the first BR exercise.



#### FIGURE 1- BIENNIAL REVIEW SCORES (1ST AND 2ND ROUND)

During the second (2019) BR exercise, Malawi did not keep the momentum it recorded in the first BR. Overall, due to a significantly higher benchmark of 6.66, only four countries were able to remain on-track in the second BR. Nevertheless, 36 of the 49 reporting countries were able to improve their score when compared to the first

BR. Malawi, in contrast, was one of the few countries that recorded a decline in its score between the two BRs: 4.81 in the second BR compared 4.92 earlier. Malawi's performance was below both the COMESA and African average.

The performance of Malawi with respect to the seven Malabo commitment areas shows that the country was on-track in four out of the seven commitment areas during the first BR exercise. These included recommitment to target CAADP goals and principles (commitment-1), halving poverty (commitment-4), boosting intra-African agriculture trade (commitment-5), and mutual accountability (commitment 7). In the second BR cycle, Malawi was not on-track in any of the seven commitments (Figure 2). In addition, a reduction in the second BR performance score was observed compared to what the country had achieved during the first BR exercise. This includes the scores on enhancing investment finance in agriculture (commitment 2), halving poverty (commitment 7). Malawi was trailing back COMESA on some commitment areas including enhancing investment finance in agriculture (commitment 2), eradicating food insecurity (commitment 3), and boosting intra-African trade (commitment 5). A comparison of the performance of Malawi with the best performing countries (BPC) in each of the commitment areas shows the presence of notable gap particularly on halving poverty (commitment 4), boosting intra-African trade (commitment 5), and improving resilience (commitment 6).



#### FIGURE 2-BR PERFORMANCE FOR THE SEVEN COMMITMENT AREAS

Source: AUC (2020, 2018)

Note: PBC refers to best performing country and BM refers to benchmark (or the minimum score)

Detailed presentation of the progress of Malawi in the seven commitment and the 24 performance areas of the BR process is presented in Table 1. It shows that the number of *on-track* commitment areas declined from 11 in the first BR to 5 during the second BR. Moreover, more than a quarter of the performance areas showed a decline in their score during the second BR. In general, the result suggests that Malawi needs to do more and better particularly on the performance areas under the following five of the seven commitment areas: enhancing investment finance in agriculture, ending huger, halving poverty, boosting intra-African trade on agriculture, and enhancing resilience. These are some of the main food system areas where Malawi needs to urgently take concerted action.

#### TABLE 1- MALAWI'S PROGRESS TOWARD MALABO COMMITMENTS

Commitment	Performance areas	2019 Score	2nd BR BM*	2017 Score	2nd BR BM
1. Re-commitment to principles and values of the CAADP process	Country CAADP processes	10	10	10	3.3
	CAADP based cooperation, partnerships and alliances	10	10	4.2	3.3
	CAADP based policy and institutional review	6.2	10	7.4	3.3
2. Enhancing investment finance in agriculture	Public expenditure on agriculture (target: 10%)	8.3	10	9.8	10
	Foreign private sector investment in agriculture	NA		NA	
	Domestic private sector investment in agriculture	NA		NA	
	Access to finance	1.2	10	0	3.3
3. Ending Hunger in Africa by 2025	Access to agricultural inputs and technologies	6.3	8.3	3.9	5.5
	Agricultural productivity	0.8	3	0.8	1
	Post-harvest losses (reduce by 50%)	0	3	4.1	1
	Social protection (target: 100%)	9.4	10	0	10
	Food security and nutrition	1.7	3	1.7	1
	Food safety	1.6	3		
4. Reducing poverty by half, by 2025, through inclusive agricultural growth and transformation	Agriculture GDP and poverty reduction	1.7	4.8	0	3.3
	Inclusive PPPs for commodity value chains	0	3	10	3
	Youth jobs in agriculture (target: 30%)	10	3	9.9	1
	Women participation in agribusiness	0	5	0	3
5. Boosting intra-African trade in agricultural commodities and services	Boosting intra-African trade in agriculture commodities and services	о	3	о	1
	Intra-African trade policies and institutional conditions	2.2	3	2.7	1
6. Enhancing resilience of livelihoods and production systems to climate variability and other related risks	Resilience to climate related risks	3.8	4	2.6	2
	Investment in resilience building	6.7	10	6.7	10
7. Strengthening mutual accountability to actions and results	Country capacity for evidence- based planning, implementation & M&E	3.1	3	8.1	1
	Peer review and mutual accountability	10	10	10	3.3
	Biennial agriculture review process	9.7	10	9.7	10

Source: AUC (2020, 2018)

Note: BM refers to benchmark, the minimum score to be on-track. Green color represents on-track and red not on-track.

## 3. Environment and Climate

Located south of the Equator, Malawi is divided into three regions and subdivided into 28 districts. The Northern region is composed of seven districts while there are nine and 13 districts in the Central and Southern regions respectively. According to the 2018 population and housing census, the district with the smallest population is Likoma in the Northern region having 14, 527 inhabitants whereas Lilongwe, located in the Central region has the largest population size with 2.63 million (62.3% is rural) accounting for 15% of the entire population. Lake Malawi occupies one-fifth of the size of the country and is the third largest lake in Africa (ESA, 2010). The agroecological zones of Malawi are broadly grouped into four categories (Figure 3). About three-fourth of the country's land surface is a plateau ranging from 750-1,300 meters in altitude (Pavelic et al., 2012). While the high land elevations rise as high as 3,000 meters (Mt Sapitwa), part of the southern area lies as low as just 37 meters above sea level (Encyclopedia of the Nations. 2021).

#### FIGURE 3- AGROECOLOGICAL ZONES



Source: CSA in Malawi

Topography and proximity to Lake Malawi is a major influencing factor of rainfall distribution in the country. Mountainous and high-altitude areas enjoy the highest rainfall, while low lying areas receive the lowest rainfall (FAO, 2006). In general, the climate in Malawi is relatively dry. About 95% of the annual precipitation takes place during the warm-wet season that takes place from November to April. The remaining months of the year are cool and dry winter season, particularly from May to August, while September and October are usually a hot and dry season (MMS, 2021).

Generally speaking, the temperature is relatively cooler in lake Malawi and in land areas situated in the northern part of the country. On the other hand, areas in the south are hotter and can exceeds 40 degrees Celsius. A comparison of the mean values for the daytime land surface temperature (LST) between 2010 and 2019 shows that lake Malawi and the lowland areas in the south have become hotter while some parts of the country recorded reduction in the mean LST including in the northern and central areas that are closer to Zambia as well as some parts of the Central and Southern region (Figure 4). The presence of such temperature

fluctuation has the potential to affect agriculture production, create fluctuation in markets, and trigger instability in the food systems.



Source: www.aagwa.org

## 4. Globalization and Trade

Malawi depends far less on cereal imports for its consumption demand than other COMESA member states or the average African country. Between 2010-2016, the dependency ratio averaged 5.3%. This implies that the country was able to meet about 94.7% of the cereal demand from domestic sources. The performance is notably different when compared with COMESA and Africa as a whole whose import dependance ratio averaged 23% and 27% respectively for the same period. The trend over the last 20 years shows a sharp decline after 2000 followed by a gradual increase throughout the last decade, taking the dependency ratio for the country above10% for the first time again in 2015 after more than 10 years (Figure 5).

Agricultue accounts for about 80 percent of Malawi's total exports, with an average annual revenue of US\$ 1.16 billion between during 2010-2018. This is significantly higher than the 17.5% and 10.4% recored by COMESA and Africa respectively on average for the same period (Figure 6). It shows that the country heavily depends on agricultural export. The main agricultural commodites exported (with close to 90% share during 2016 to 2019) are tobacco, sugar and tea, with tobacco accounting for more than 60% of the country's total export (NSO, 2020). Intra-African agricultural exports for Malawi averaged US\$ 0.27 billion, representing 23.2% of the total agricultural export for the same period. The result for the period 2013-2018 shows that about 9.8 percent of Malawi's exports went to COMESA member states (NSO, 2020). In general, major export destinations in Africa include South Africa, Zambia, Zimbabwe, and Mozambique. Agriculture accounts for about 12.8 percent of Malawi's total imports during the 2010-2018 period. The agricultrual import share does not deviate that much from what is observed for COMESA and Africa in average, with shares amounting to 17.1% and 14.4%, respectively. In value terms, Malawi's average annual agriculture imports reached US\$ 416 million during 2010-2018, which is 1.6 percent of the US\$ 26 billion imported by COMESA member countries.

#### FIGURE 5- CEREAL IMPORT DEPENDENCY RATIO (%)

# FIGURE 6- AGRICULTURAL EXPORT (% SHARE)



The cumulative proportional changes in Malawi's intraregional trade by 2030 compared to the baseline is presented in figure 7 and figure 8. The changes would result from three scenarios that are related to yield and cost: removal of cross-border trade, a reduction in total trading cost, and an increase in crop yields. Values on top of bars (of Figure 7 and 8) indicate Malawi's cumulative increases in net intraregional trade in million US dollars.

# FIGURE 7- CUMULATIVE CHANGES IN MALAWI'S NET INTRAREGIONAL IMPORT OF FOOD CROPS RESULTING FROM COST AND YIELD SCENARIOS, 2019-2030



Source: Authors' computations

Note: Figures on top of bars indicate cumulative increases in net intraregional import demand in million US dollars. Cereals include maize, rice, sorghum, wheat, and other cereals. Roots and tubers include cassava and potato. Other food crops include soybeans, oil palm, pulses, and fruits. Figure 7 shows that the outlook for Malawi's intraregional import is characterized by a notable proportionate increase for cereal, roots & tuber, and other food crops in response to removal of cross-border trade barriers. In value terms, the accumulated additional intraregional import demand is much higher for cereal and roots & tubers at US\$ 22.9 million and US\$ 28 million respectively. Similarly, a reduction in trading cost would also result in an increase in Malawi's intra-regional import particularly for roots & tubers but it is lesser than the removal of trans border trade barrier both in value and rate of change. On the other hand, an increase in yield will considerably decrease the proportion of Malawi's intraregional import demand for roots & tubers and for other food crops. In value terms, it amounts to a reduction of US\$ 4 million to US\$ 21 million in import demand. The result also suggests that cereal productivity would bring insignificant impact may be because the country already relies on domestic production to meet most of its cereal demand as shown in Figure 5 above. In general, cereal import demand outlook will be relatively less responsive to any of the three cost and yield changes.

Figure 8 shows that a 10% increase in cereal yield will produce a significant improvement in intra-regional export both in proportion and value. It indicates that a modest increase in cereal yield has the potential to exceed domestic demand and bring about more than a quarter of US\$ one billion above the baseline. The result also suggest that yield improvement plays significant role in Malawi's engagement in regional export than efforts that leads to cost reductions. On the other hand, a removal of trans border trade barrier would make Malawi less competitive in cereal than neighboring countries as evidenced by a decline in cereal export by as much as US\$ 18.2 million.

The impact of the three scenarios on other food crops would be insignificant both in value and percentage changes.

# FIGURE 8- CUMULATIVE CHANGES IN NET INTRAREGIONAL EXPORT OF FOOD CROPS RESULTING FROM COST AND YIELD SCENARIOS, 2019-2030



Source: Authors' computations

Note: Figures on top of bars indicate cumulative increases in net intraregional export supply in million US dollars. Cereals include maize, rice, sorghum and wheat. Other food crops include soybeans, oil palm, pulses and fruits.

In general, the finding reveals that removal of trans border trade barrier has the potential to bring about a higher import demand that can play a role in addressing the country food security issues. On the other hand, an increase in yield has the potential to improve the domestic food market as well as boost the income of smallholder farmers through increased export revenue.

The normalized revealed comparative advantage (NRCA) index is used to assess to what extent and on which commodities Malawi has trade specialization advantage when compared to the COMESA member countries. The five top commodities to which Malawi has export specialization among the member countries are tobacco, unmanufactured, Cotton Carded, Combed, Coffee and Substance Containing Coffee, Cotton Linter, and Groundnuts Shelled.

## 5. Income growth and distribution

In 2019, Malawi's real GDP amounted to US\$ 9.75 billion, growing at an annual average rate of 3.77 percent between 2010-2019. Its growth performance was higher than the average for Africa (3.04%) and slightly lower than the 3.84% recorded by COMESA for the same period. Despite sustained economic growth, the country remains at the lower end of the per capita income scale among African countries with an annual average GDP per capita of US\$ 501.6 between 2010 to 2019 period. In contrast, COMESA and Africa recorded average per capita GDP of US\$ 1,756 and US\$ 1,979, respectively (Figure 9). In addition, the trend in income distribution was relatively more unequal in Malawi compared to the average for COMESA or Africa. During the late 1990s, Malawi had one of the highest Gini coefficient on the continent, with a value as high as 65.8 before declining to 45.1 in the last decade. The sustained improvement in income distribution led to a significant narrowing of the inequity gap compared to other countries (Figure 10).



Malawi also has one of the highest incidence of poverty in Africa. The proportion of the population living below US\$ 1.90 a day showed a marginal decline but still stood at 70.7 percent on average between 2010-2019, much higher than the average level recorded for COMESA (32.9%) and Africa (36.7%) during the same period. The marginal reduction in the prevalence of poverty was offset by the incrasing population growth. As a result, the absolute number of the population that lives in extreme poverty increased consistently during the same period (Figure 11). The same trend is observed for the poverty gap, which also shows a consistent but marginal decline, from notably higher levels than the average COMESA or Africa country. Measured by how much the

average poor person's income falls below the poverty line of US\$ 1.90 a day, the poverty gap or intensity of poverty in Malawi stood at 30.6% in 2010-2019. This is considerably higher than the average values for COMESA and Africa: 11.8% and 13.3% respectively.



#### FIGURE 11- POVERTY HEAD COUNT (IN % AND IN MILLION)

## 6. Agricultural Sector Performance and Potential

Agriculture plays an important role in Malawi's economy. It accounts for more than a quarter of the country's GDP and is also responsible for four-fifth of its export earnings. In addition, the sector provides employment for about 77 percent of the total labor force in the economy. Maize is the main staple food grown in the country and is viewed as a strategic crop. It accounts for 88.2% of agricultural land allocated for cereal production and 92% of the total cereal production (NSO, 2020). Maize therefore represents a major source of caloric intake in the country and key driver of food security. Malawi's government frequently imposes maize export bans with an intention to foster domestic food security. For instance, an export ban was introduced in 2011 which lasted until end of 2017. Then it was reintroduced again in 2018 and has been temporarily lifted in March 2021 (FAO, 2021)

Instability is one of the most important challenges faced by the agri-food system in Malawi, as depicted by the erratic patterns of growth in agricultural value added during the last 10 years (Figure 12). In addition, agricultural value added grew by 2.9 percent average rate per annum, lower than the average for COMESA (3.7%) and Africa (3.8%). Except for a couple of years, the growth performance remained well below the 6% CAADP target (Figure 12). Moreover, frequent spells of growth contraction have been observed, especially in 2015 and 2016, when negative growth rates of -2.0% and -2.3%, respectively, were recorded. The instability in agricultural growth affects food price stability, with important implications for food security, poverty, and the broader sustainability of the country's food system.

#### FIGURE 12-AGRICULTURE VALUE ADDED GROWTH (%)



The health of agricultural sector performance can also be measured by changes in labor and land productivity. Labor productivity as measured by agriculture value added per worker remained sluggish in Malawi, particularly during the last decade, unlike the performance observed both for COMESA and Africa (Figure 13). Agricultural labor productivity remained essentially flat in Malawi over the last two decades, following a period of rapid increase in the 1990s. The opposite was observed for Africa as a whole, with a sustained growth in labor productivity since 2000, leading to widening of the gap between the Malawian and African averages. The COMESA region fared less well than Malawi until very recently. Here too, the productivity gap between Malawi and the region is showing a growing trend. In general, labor productivity in Malawi's agricultural sector has remained consistently below the COMESA and Africa wide levels.

Land productivity in Malawi, measured as agriculture value added per hectare of agricultural land, has, in contrast shown a slow but steady growth during the last three decades and has remained consistently above the African average. Malawi also performed better than the COMESA region for most of that period in terms of average land productivity growth. As a result, the land productivity gap compared the regional average narrowed significantly, before starting to rise again since the middle of the last decade (Figure 14).

#### FIGURE 13- LABOR PRODUCTIVITY



#### FIGURE 14- LAND PRODUCTIVITY



Agricultural potential is another important driver of food systems, in particular in terms of future opportunities and outcomes. High agricultural potential provides more options for improving food and nutrition outcomes. In Malawi, agricultural potential is much higher in the northern and central parts of the country (Figure 15). Areas including Kasungu, Lilongwe Plain in the central region and Chitipa in the north enjoy a more suitable agroecology and as well as higher precipitation levels (Maruyama et al., 2018).

# <figure>

#### Source: Maruyama et al., (2018)

Other high agricultural potential districts include Dowa, Ntchisl, and Karonga, also located in the Northern and Central Regions. The potential is lower predominantly in the Southern Region including in Balaka, Machinga, Zomba, Phalombe, Chiradzulu, and Mulanje districts. The major contributing factor for the low agricultural potential is lower levels of rainfall and generally poor weather conditions that characterize most of the Southern Region.

The difference in potential is driving a slow but steady shift in the distribution of cropland. As reflected in Figure 14, there has been a notable reduction in the proportion of cropland area between 2010 and 2019 in Southern areas located in Zomba, Phalombe, Chiradzulu, and Mulanje districts. On the other hand, the

Northern and Central regions with medium to high agricultural potential have witnessed a notable expansion in cropland area (Figure 16).



FIGURE 16- CROPLAND AREA IN MALAWI (IN PERCENT)

Source: www.aagwa.org

As shown in Figure 17, most of the unrealized agricultural potential in the countries lies in the same North and Central Regions. Future strategies to foster agricultural growth, reduce poverty and improve food security in Malawi will need to focus on mobilizing that potential.

#### FIGURE 17- UNREALIZED AGRICULTURAL POTENTIAL



Source: Maruyama et al., (2018)

#### **FIGURE 18-PREVALENCE OF** UNDERNOURISHMENT (%)



#### **FIGURE 19- PREVALENCE OF** CHILD MALNUTRITION



Source: Author's compilation based on ReSAKSS (20201)

## 7. Agricultural Growth Potential, Poverty and Vulnerability

Prevalence of undernourishment in Malawi, as measured by the proportion of the population with less than the required dietary energy intake, has been on the decline fairly consistently (Figure 18). The country not only fared better than the average for COMESA throughout the last two decades, but the gap between the two has expanded significantly over time. The sustained decline has also completely narrowed gap in nutrition outcome between Malawi and the rest of the continent. And while malnutrition levels have tended up a notch recently for Africa as whole, Malawi has been able to continue its progress and has, for the first time since 2015, malnutrition levels that are below the African average. The performance remained consistent in absolute levels as well, although the decline is less pronounced. The number of undernourished people has declined from 3.17 million in 2010 to 3.09 million in 2017, recording 0.7% annual average rate of decline.

The prevalence of child malnutrition also followed a declining trend during the last two decades, but unlike the case of caloric malnutrition, Malawi lags behind COMESA as well as the average African country. And despite the progress that has been achieved, the levels of child malnutrition are still on the higher range, particularly for child stunting, which averaged 41.7% during 2010-2019, notably higher than the averages for COMESA and Africa of, respectively, 35.5% and 32.7% (Figure 19). The nearly 42% level of stunting in Malawi is clearly above the 40% threshold for very high prevalence according to WHO's (2019) classification. In contrast, Malawi fared significantly better than either COMESA or Africa as a whole in terms of child underweight as well as child wasting, where prevalence rates in the country are classified as medium.

Even though child stunting in Malawi surpassed the very high prevalence rate on an international level, there exists a notable spatial variation as shown in figure 20. It is evident that the prevalence of stunting is highest in 9 districts including Dedza, Neno, Mchinji, Zomba Rural, Ntcheu, Mangochi, Mzimba, Lilongwe Rural, and Ntchisi. On the other hand, six districts (Likoma, Blantyre City, Karonga, Zomba City, Lilongwe City, and Mzuzu City) have lower proportions of stunting and are hence considered much less vulnerable.

Figure 21 provides a wider approach to the vulnerability status in Malawi. It constructs a composite community vulnerability index by employing critical sub-indicators including food and nutrition security, disease prevalence, population density, as well as health infrastructure and services (Matchaya and Nhlengethwa, 2021). Each district vulnerability shows the vulnerability status in comparison to the average for the country. The composite vulnerability result confirms with the vulnerability spatial distribution findings presented earlier. The index suggests that chronic vulnerability is highest in the Southern Region and lowest in the Northern Region of the country.

#### FIGURE 20- CHILD STUNTING IN MALAWI

#### FIGURE 21- VULNERABILITY INDEX: MALAWI



Source: Matchaya and Nhlengethwa (2021)

Moreover, from a spatial point of view, prevalence of poverty is predominantly higher in the southern part of Malawi (Figure 22). This includes areas with both moderate and low agricultural potential such as Balaka, Chiradzulu, Chikwaka, Machinga, Mulanje, Nsanje, Phalombe and Zomba, but also areas with higher potential, such as Chitipa in the north. We already saw earlier that there was still large and unrealized agricultural potential primarily in the Northern and Central regions (Figure 17). The efficiency map (Figure 23) shows that farmers in the same regions are using existing technologies rather efficiently, yet there are still fairly high levels of poverty in large sections of the same areas. The combination of high poverty, high efficiency and large pockets of unrealized potential in the same areas means two things. First, that it is possible to reduce poverty by fostering agricultural growth and raising land and labor productivity. Second, it means that future strategies to raise productivity and reduce poverty will require investments to innovate and expand the supply of new and improved technologies.



FIGURE 23- EFFICIENCY MAP IN MALAWI

#### FIGURE 22- POVERTY MAP IN MALAWI

Source: Maruyama et al., (2018)

On the other hand, there are large areas in the Southern regions with low to medium levels of unrealized agricultural potential (Figure 17) and high rates of poverty (Figure 22). These same regions are also characterized by low levels of agricultural efficiency, meaning that farmers here are not using existing technologies as well as their peers. Strategies to fight poverty in these areas require more investments to promote greater access and more adequate use of existing technologies. These more and lower hanging fruits than strategies in the Northern and Central regions calling for investments to shift the technology frontier.

There is a third category of areas with high poverty, low unrealized potential and medium efficiency. This includes the region from Zomba up to Balaka, Dedza and Mangochi. Agriculture and productivity based strategies alone will be less effective here and will have to be combined with social protection programs to reach and include many of the poor and vulnerable. Figure 24 below provides a typology of investment priorities for the entire country based on the above approach. It offers guidance for better targeted and thus more effective interventions to fight poverty and vulnerability based on the spatial configuration of agricultural potential, agricultural efficiency and poverty levels.



## 8. Demographic shifts and urbanization

The total population of Malawi grew on average by 2.77 percent between 2010 and 2019 that is higher than that of COMESA (2.08%) and Africa (2.36%) for the same period. A declining trend in population growth is observed at annual average level of -1.1%, which is also consistent with observed trends for COMESA and Africa although both recorded a slightly lower reduction rate of less than one percent. According to projections by the Malawi National Statistics Office (NSO, 2020), the country's population will almost double within three decades to reach at 33.6 million by 2050. Nonetheless, the population growth rate will continue its declining trend to reach 1.7% by 2050. In addition, the projected trend reveals a decline in the proportion of children and a significant increase in middle age people as well as a moderate rise in the elderly (NSO, 2020 and Figure 25).

#### FIGURE 25-MALAWI POPULATION PYRAMID





Source: NSO (2020)

According to the 2018 Population and Housing Census, the population of Malawi is 17.6 million with female population accounting for 51.5 percent. The average household size is 4.4 with fairly similar size in both the urban and rural areas except few locations including Nkhata Bay (5.5), Likoma (5.0), and Chiradzulu (3.9). The overall population density in the country is 186 persons per square kilometer with significant variation among the rural and urban places. The highest population density per square kilometer is recorded in Blantyre City (3,328), Zomba City (2,511), and Lilongwe City (2,453). Places with the smallest population density includes Chitipa and Rumphi with 54 and 50 respectively.

About 17% of the country's population lives in the urban area. However, Malawi's urban population growth has been moderately increasing during the review period from 3.61% recorded in 2010 reaching to 4.03% in 2019. According to World Bank (2016) report, the share of urban population in Malawi will reach 20% by 2030 and further to 30% of the population by 2050. Such rise in urbanization will play a key role in shaping the food system in the country from production all the way to consumption.





## 9. Leadership and Governance

Figure 26 shows the trend in quality of governance in Malawi based on the World Bank's Worldwide Governance Indicators that capture six key dimensions of governance. These are (i) Voice and Accountability, (ii) Political Stability and Absence of Violence, (iii) Government Effectiveness, (iv) Regulatory Quality, (v) Rule of Law, and (vi) Control of Corruption. The figure shows the estimate of governance for the six dimensions, each ranging from -2.5 (weak) to 2.5 (strong) governance performance. In general, the trend shows that Malawi needs to do more and better to improve the quality of its governance. Rule of the law and, government effectiveness and control of corruption, in particular, have been trending in the wrong direction. Considerable changes will be needed here to improve food system governance and create the conditions for better poverty, nutrition and equity outcomes.

#### FIGURE 26- MALAWI'S GOVERNANCE INDICTORS



Source: Author's representation based on World Bank, World Governance Indicators (2021) Note compiled from the World Governance Indicators (2021):

Voice and Accountability: Reflects perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

Political Stability and Absence of Violence/Terrorism: Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically motivated violence, including terrorism.

Government Effectiveness: Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

Regulatory Quality: Reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

Rule of Law: Reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

Control of Corruption: Reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

## 10. Socio-cultural context

The status of Malawi in various social and economic dimensions show that women still lags behind their male counterparts. As figure 27 shows, women fare worse in several socioeconomic outcomes. It is important to note, however, that improvements have been made on gender equality and women empowerment from the policy, legal, and performance perspectives. In 2015, Malawi revised its national gender policy with the aim of strengthening gender mainstreaming and women empowerment at all levels in order to facilitate attainment of gender equality and equity.



Source: Author's compilation based on UN GII (2019) and NSO (2020)  $\,$ 

The country made a constitutional amendment in 2017 that sets the minimum age of marriage to 18 (UN Women Africa – Malawi, 2018). The result on the ground shows that, between 2015 and 2019, Malawi improved its rank on the UN's Gender Inequality Index (GII) from 173 in 2015 to 142 in 2019. The status out of the 14 COMESA member countries, however, shows that Malawi ranked better than only two countries, Democratic Republic of Congo (150) and Eswatini (143), indicating that Malawi needs to do more and better when compared with countries in the COMESA regional block.

## 11. Finance & Capital

Available latest data shows that there are eight commercial banks and 46 microfinance institutions (MFIs) in Malawi (UNCDF, 2020). The sector still rather small with a share of 5.3% of the GDP (AfDB, 2019). The commercial banking sector is dominated by two banks as evidenced by the combined 51 percent share of the total asses in the sector. The MFI sector is growing and the number of people they serve is increasing, mainly those who do not have access to the commercial banks. Even though MFIs are growing in terms of assets, they still remain small, accounting only for 2.3% of the assets held by the commercial sector (UNCDF, 2020). There is an increasing trend in financial inclusion in the country, however, although more in favor of the male than female and are also biased against rural smallholder communities. In recent years, a significant increase was observed in the proportion of adults that own mobile money account. In addition, the proportion of youth that own a financial account increased notably, albeit still at a very low level overall (Figure 28). Moreover, according to the 2018 Biennial Review report, only 12% of those engaged in agriculture have access to financial services, much lower than the 24% and 33% recorded averages for COMESA and Africa (AUC, 2018). In general, these results show that more has to be done to improve access to money and credit especially for the smallholder farmers, female actors and the youth. This is important because access to financial services is a key driver in raising incomes and improving food security among smallholder farmers. It is also critical for the transition to more diversified and resilient food system.

2019



#### FIGURE 28: SELECTED FINANCIAL INCLUSION INDICATORS

Source: Author's compilation based on UNCDF (2020)

## 12. Energy

Malawi produces 372 MW from hydro power and 141.5 MW from other sources, including diesel. Moreover, three projects are ongoing with a total of 470 MWs including 350 MW of hydropower and 120 MW of solar power (USAID, 2021). Despite the presence of progress, according to the 2018 Population and Housing Census, the electricity access rate remains low at 10%, ranging from a high 37% in urban areas to a meagre 2% among rural communities which account for 83% of the country's population (NSO, 2020). As a result, biomass is still the main source of energy for about 99% households.

Firewood, in particular, is the main source of thermal energy, with an 87% share, followed by charcoal at 8% (Energypedia, 2021). Such a heavy reliance on fuelwood with a rapidly growing population puts significant pressure on the country's forest resources. As shown in Figure 29 there has been a notable loss of tree cover over the short period of time between 2010 and 2018, particularly in the highlands of the Northern region. The pace of deforestation and forest degradation exacerbates the risk of desertification, soil erosion, and other deterioration of environmental resources that would further undermine the production potential in the agriculture sector. This in turn would reduce the portfolio of available options to successfully transform food systems, boost productivity, reduce vulnerability and improve livelihoods.



#### FIGUR 29- FOREST CHANGE IN MALAWI BETWEEN 2010 AND 2018

According to the World Bank, Malawi has improved its policy and regulatory framework to help expand the sustainable use of energy. This is shown by an increase in the overall score in the RISE (Regulatory Indicator for Sustainable Energy) indicator from 31 in 2010 to 52.6 in 2019, representing a move from low to middle performance level. Despite such performance from the policy and regulatory dimension, power outage remained a notable challenge in Malawi. According to MaMo Panel (2019) report, the cost that Malawi incurs due to power outage amounts to 7 percent of the country's GDP whereas according to the same report, about 2 to 3 percent of GDP could be added annually if the country managed to secure more reliable energy sources.

Source: <u>www.aagwa.org</u>

## 13. Agriculture expenditure

Malawi's public agriculture expenditure (PAE) averaged US\$ 320 per year during 2010-2019 period, growing at 3.75% annually. The growth rate was less than the 6.4% recorded for COMESA while it was slightly higher than the average for Africa (3.4%). During the review period (2010-2019), the share of PAE in total public expenditure surpassed the 10% CAADP target to reach at 14.3% per annum. It was much higher than the performance by COMESA (3.5%) and Africa (5.7%). Nonetheless, as figure 30 reveals, the trend was characterized by sharp, periodic ups and down.





According to ASTI (2021) database, the share of Malawi's total agriculture research spending in total government expenditure averaged less than one percent (i.e., 0.87%) between 2010-2014, the period for which data is available. The trend recorded a decline of 0.7% annually. Nevertheless, there are indications that an increasing number of farmers have been reached through extension services. The proportion of farmers that received access to agricultural advisory services improved from 49.4% to 72% between 2014 and 2018, growing at annual average level of 9.8 percent (AUC, 2020).

## 14. Conclusion

The findings from the review of key drivers suggest that Malawi need to move towards a comprehensive food system approach. Dominated by few products, agriculture remains the main sector of Malawi's economy, accounting for about 80% of total export earnings and labor force participation. Malawi continues to heavily rely on Maize for its consumption and hence caloric intake. Such lack of food diversification has the potential to affect food and nutrition security. Moreover, the extent of malnutrition and undernutrition prevalence presented in this brief also calls for urgent actions.

The observed change and instability in climatic conditions poses a threat to agriculture production and has the potential to trigger price and income fluctuation not only for the majority of the smallholder farmers but also for the urban poor. Furthermore, population growth, urbanization, and huge dependance on biomass energy are creating considerable stress in the country's forest resource. This in turn negatively affects the agriculture sector further exacerbating food insecurity situation in the country.

If anything, we are learning from the COVID-19 pandemic is that ensuring an adequate, healthy food supply to all requires a resilient food system, defined as one that can adapt to local and global challenges posed by climate change, urbanization, political and economic crises, and other shocks. It follows that understanding processes through which shocks propagate along food supply chains by various economic, political, climate, markets and infrastructural factors is central to reducing food shortages and building resilience within food systems.

What about Africa? The call for food system approach should in no way be viewed as a new agenda or initiative rather as a new framework with the potential to add value to what is already in place, the CAADP/Malabo Agenda. More specifically, in its effort to mainstream the food system approach, Malawi should: i) assess the mutual accountability systems using food system lenses; ii) same assessment is needed for the Malawi National Agricultural Investments Plan (NAIP); iii) design Malabo and food system compliant NAIPs and RAIPs; iv) design and implement food system decision-making tools in the form of dashboards.

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