Metrics, Analytical Questions and Tools for National Agriculture and Food Security Investment Plan (NAFSIP) Design, Appraisal and Tracking

Guide on Food Security and Nutrition

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1. Introduction and context

The CAADP Results Framework 2015-2025 was developed as a key tool for translating Africa's agricultural development vision and goals into tangible outcomes and for tracking, monitoring and reporting on progress as well as for facilitating mutual learning and accountability. A key challenge for operationalizing the Results Framework is ensuring adequate data is accessed and used and credible analysis is undertaken, not only in monitoring progress but also in helping to inform future planning and programming. It is of critical importance to ensure that existing National Agricultural Investment Plans (NAFSIPs) can be effectively appraised and, where new ones are being formulated, designed in ways that are sufficiently rigorous and consistent with the CAADP goals and commitments in the Malabo Declarations. These commitments include[1]:

A. Declaration on Nutrition Security through Inclusive Economic Growth and Sustainable Development in Africa
   1) Ending hunger by 2025
   2) Ending child stunting and bringing down stunting to 10 % and underweight to 5% by 2025
   3) Continuing dialogue and strengthening advocacy in support of improved nutrition

B. Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods
   1) Ending hunger by 2025
   2) Improving nutritional status and eliminating child under nutrition by bringing down stunting to 10 % underweight to 5 % by 2015

C. Declaration on Ending Preventable Child and Maternal Deaths in Africa
   1) Developing and implementing country-led roadmaps to accelerate ending preventable deaths among children and mothers.

[1] Source: AU (African Union). 2014a. Decisions, Declarations and Resolution. Assembly of the African Union, Twenty-third Ordinary Session, June 26-27, 2014, Malabo, Equatorial Guinea. Accessed August 12, 2016. http://au.int/en/sites/default/files/decisions/9661-assembly_au_dec_517_-_545_xxiii_e.pdf.

From a technical perspective at least four important elements must be considered to effectively guide countries in the design and implementation of the institutional, policy and investment actions required to achieve the Malabo commitments,:

1. The identification of clear metrics to measure targets, define milestones, and guide progress and performance tracking and review,
2. The definition of a set of key analytical questions that will guide the kind of analysis needed at the country level to inform the NAFSIPs,
3. The use of a common set of tools and analytical approaches to ensure consistency and alignment among the many Malabo goals and targets, as well as facilitating tracking of progress at the continental level, and
4. The coordination of analytical and other planning activities to ensure the timeliness of delivery, the quality of outputs, and the relevance of findings.

This guidance note is developed primarily for expert teams who will conduct and country-level NAFSIP appraisal. The analytical tools presented in this note can be used for diagnostic, planning, and monitoring as well as evaluation purposes. While the diagnostic tools serve those countries, which are in the early stages of national investment plan development, the evaluation tools are useful to those countries that would like to evaluate their on-going or just-ended investment plans.

2. Overview of the guidance note

This note seeks firstly to clarify a number of understandings, muddles in terminology, clarification of the positioning of food security and nutrition in the African policy context and CAADP in particular. Secondly, a systematic process for the review of NAFSIPs is provided and the methodology for analyzing this is explained.

3. Coming to terms with terminology – why definitions matter

The concept of food security is iterative and our understanding of its complexities unfold with increasing insight into the interactions of the multiple causes and the impact of these on the lives of people across the globe (Hendriks 2015). The development of the core definition of food security can be traced back to global food system shocks (Hendriks, 2015).

The concept of ‘food security’ first began to attract attention in the 1940s and is now widely used in designing, implementing and evaluating humanitarian emergency and development policies and programs. Today the universal definition of food security, accepted by the highest level of global governance on food security, the Committee on World Food Security (CFS), describes it as a situation where “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active healthy life” (CFS 2012 as per the FAO 1996 definition).

However, the usefulness of the concept is constrained by the plurality of ways of understanding the causes and consequences of food insecurity, and the effects of economic, social, political and environmental interventions (Hendriks 2015). Further complicating the issue is the transdisciplinary nature of the food security research field: experts from different traditional disciplines working together are giving us a more nuanced understanding of the concept but also potentially muddying the waters.

Our plurality of backgrounds (agronomy, economics, sociology, health, nutrition, among others) influences our understanding of what causes food insecurity and consequently of what we must do to deal with it. This leads to discourses and paradigms that compete for domination, leading to conflicts over terms and concepts (Lang and Barling 2012; Candel 2014). The terms 'food security', 'nutrition security', 'food security and nutrition' and 'food and nutrition security' are used interchangeably, and some scholars assert a hierarchy among these terms. The proliferation of terms initiated a discussion at the Committee on World Food Security annual meeting in 2012 (CFS 2012). The CFS input note on "coming to terms with terminology" (CFS 2012) sets out clearly the origins and development of the contentious terms. Nevertheless, despite a CFS resolution on the use of the terms (CFS 2012), they are still being used interchangeably. This does not make for clarity of understanding or effective policy and program development.

Food security is achieved when households are able to access (through production or purchasing) enough food to meet their daily nutritional requirements. Food security includes four foundational elements namely: availability, access, nutrition (termed utilization in the original definition), and stability of supply (or resilience).

The definition encompasses four dimensions (FAO 1996):

- Availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid).
- Access by individuals to adequate resources (also called entitlements) for acquiring appropriate foods for a nutritious diet.
- Utilization of food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met.
- Stability in the availability of and access to food, regardless of sudden shocks (e.g. an economic or climatic crisis) or cyclical events (e.g. seasonal food scarcity).

The first component – availability – arose from the post-World War two conceptualisation that focused on increasing food supply. The inclusion of access elements in the 1980s followed major famines in Africa in the 1980s. The utilisation component relates to the rise of human rights in the early 1990s. Lastly, the stability element was added but more re recently includes resilience in response to increasing awareness of the impact of conflict and migration on food security (Hendriks 2015).

Post the 2007/8 high food price crisis, there has been increasing attention to first under-nutrition and now to malnutrition in all its forms (undernutrition, micronutrient deficiencies and overweight and obesity). The food price crisis of 2007/8 demonstrated the need to pay more attention to nutrition – especially among young children.

There are many factors that affect the nutrition status of a population. These include health, agriculture, water and sanitation, consumption patterns, feeding practices for infants and young children, gender and food safety (Covic and Hendriks 2016). While the evidence in support of investment in nutrition has existed in health and nutrition circles for a very long time, the need for integrating nutrition objectives and deliberately considering nutrition in agriculture and development programmes has only recently become topical. This contributes to a better understanding of the potential contribution nutrition can make, not only to health and well-being but, also to economic growth and development (Covic and Hendriks 2016).

There is compelling evidence that shows that not addressing nutrition comes at a significant cost to both households and national budgets. These costs are associated with treating the health related consequences of undernutrition, micronutrient deficiencies and overweight and obesity and non-communicable diseases such as diabetes, high blood pressure and cardiovascular diseases (Covic and Hendriks 2016). Malnutrition also presents lost opportunity costs through poor productivity and compromised cognitive potential of individuals and the workface.

Food insecurity and malnutrition are forms of deprivation. Each manifests in a variety of symptoms of varying severity. Hunger and wasting are extreme experiences of food insecurity but food insecurity can also manifest as ‘hidden hunger’ or less obviously observable forms of malnutrition. Malnutrition includes under-nutrition, micronutrient deficiencies or overweight and obesity. The latter being a result of unbalanced intakes and, in particular, the consumption of too many calories without regular intake of adequate protein and micronutrients.

The causes of food insecurity and malnutrition are rooted in inter-connected economic, social, environmental and political system failures. They are both causes and consequences of poverty, inequality and unemployment. Eliminating food insecurity and malnutrition demands ensuring that everyone has sufficient income to pay for basic living costs and afford an adequate and balanced diet.

While food insecurity is experienced at national, community and household level, malnutrition is experienced at an individual level. Food security rests on four elements namely food availability, access, adequate nutrition and the stability of the supply of income and food (resilience). While food security is one foundational requirement for nutrition, two other elements are essential for sound nutrition: care and health environments.

More recent conceptual development of the concepts of food security and nutrition arise from the emergence of interest in food systems. The term food systems was first defined by the UN

CFS HLPE in a paper on food losses and waste: “A food system consists of all the elements (environment, people, inputs, processes, infrastructures, institutions, etc.), and activities that relate to the production, processing, distribution, preparation and consumption of food, and the outcomes of these activities, namely nutrition and health status, socio-economic growth and equity and environmental sustainability” (HLPE, 2014). The HLPE (2014) definition of a sustainable food system puts nutrition as a core element of sustainable food systems: “a sustainable food system is a food system that ensures food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition of future generations are not compromised”.

4. Dealing with complexity and why being precise with terminology is critical for African policy making on food security and nutrition

Being precise with terminology and not muddling the concepts is crucial for policy debates in Africa. Food security and nutrition is a broad area that necessarily involves many other sectors (e.g. economics, energy, water) as well as agriculture, must take into account many determinants (e.g. social, environmental, sustainability and biodiversity expectations), and the impacts of other policy decisions (e.g. on infrastructure and investment, foreign affairs). In this context, tackling food security and nutrition requires science-based contributions to understand the socio-economic as well as the technical agenda and to develop new instruments to monitor progress.

Each new systemic shock to global food security leads to more complexity in our understanding with regard to food security policy. Each shock leads to shifts in policy attention and focus at both the global and local levels. The complexity emerges through consideration of the multiplicity of related policies and actions related to human rights, sector-specific elements such as marine and fisheries regulatory frameworks, and the multiplicity of others related to child health, water, sanitation, trade, labour etc. Coming to terms with this complexity and diversity at the country level is challenging. Ensuring future sustainable food security and nutrition and sustainable development requires attention on how to get these multiple issues mainstreamed in national policy, monitoring and evaluation and creating the institutional architecture to create continual policy review, reform and implementation.

Apart from issues related to the translation of the terminology into the official languages of the African Union (Arabic, English, French and Portuguese), conflating food security and nutrition into ‘food and nutrition security’, has negative consequences for the design of essential comprehensive food security policies and programmes and the design of integrated monitoring and evaluation systems critical for the monitoring of SDG-related development progress. In most African countries, food security is the responsibility of the department or ministry of agriculture and nutrition the responsibility of the department or ministry of health.

Food security spans sectors beyond agriculture and health, requiring the establishment of priorised national policies and programmes managed by dedicated inter-sectoral institutions.

Conflating food security and nutrition security treats food as a commodity, reverting to the initial understanding as food insecurity being a consequence of an inadequate supply of food and the response to increasing the supply of food. Much of the muddle arises from misinterpretation of the UNICEF Framework for Child Malnutrition (UNICEF, 1990). In fact, the framework is incorrectly named as it deals only with undernutrition and not malnutrition in all its forms. The framework puts food insecurity as a cause of undernutrition along with inadequate care and poor health. Nutrient requirements are individually determined and depend on, among other things, the sex and age of each individual. It is therefore difficult to generalize consumption and nutrition data across populations and the data cannot simply be aggregated at household or national levels as has been done with dietary energy intake in the past (Coates 2013). Such simplification ignores dietary quality. For example, stunting levels of young children can be aggregated at household level and across populations. However, nutrition is only measured at the individual level.

While food security is a prerequisite for sound nutrition, nutrition is one outcome and impact indicator of food insecurity but not the only outcome of food security as reflected in many frameworks for food security. Moreover, is little consensus as to whether food insecurity is a consequence or a predictor of inadequate livelihoods and poor nutrition (Campbell 1991). Pangaribowo et al. (2013) offer a third perspective: that food security is an aim in itself, not just a prerequisite for adequate nutrition.

The SDGs are careful not to conflate food security and nutrition security. SDG two calls us to: “End hunger, achieve food security, improve nutrition and promote sustainable agriculture”. All 17 SGDs depend on food security and food security is dependent on the elements in each of the SGDs. See Appendix A for a list of the proposed SGD indicators. Nutrition-related indicators are included in 12 of the 17 SGDs (IFPRI 2016).

For too long malnutrition has been understood to relate to under-nutrition. The SGDs, Agenda 2063 and the Malabo Declarations refer to ‘hunger’. It is important to understand the differences between hunger, food security and nutrition. Without the clarity regarding what we mean, technical experts speak past each other as different disciplines have different interpretations of these terms.

It is generally accepted that hunger is an extreme form of deprivation associated with the lack of food. Famine exists when widespread hunger and starvation. A lack of food in quality or quantity leads to malnourishment. Such deprivation may be temporal, short-term or long-term (ee Figure 1).

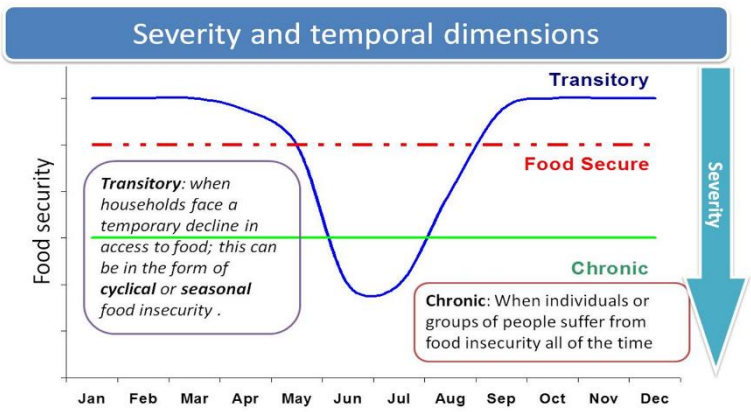


Figure 1: Seasonal and temporal food insecurity: taken from the e-learning course "Food Security Concepts and Frameworks" available at: www.foodsec.org/doc.

Recent evidence and international development focus, especially through the 2016 Global Nutrition Report (IFPRI 2016), draws attention to the fact that malnutrition exists in multiple forms. This includes under-nourishment (underweight, stunting in children and wasting), what is termed 'hidden hunger' or micronutrient deficiencies and overweight and obesity associated with poverty.

While nutrition has enjoyed significant renewed attention, we need to ensure that food security is not crowded out the focus on nutrition or by the multiplicity of other policy priorities. While human rights and the rights of children as well as many health issues (including nutrition) are clearly established in various Conventions that are ratified by governments, we do not have the same rigor in food security policy and monitoring and evaluation as in Human Rights, WTO, WHO, WHA and other UN bodies. We have seen that integrating food security elements into WTO policy debates is tricky. It was only in 2011 that the Dhoa Round agreed to include a programme of work on food security. However, the debates on the Special Safeguard Mechanism for food crises are still fierce and unresolved.

The discipline of the health sector also leads to very structured guidance for countries regarding critical and emerging policy issues. Recently, the influence of the dissemination of authorative science-based evidence (including Lancet series documents and the Global Nutrition Report series) is seen in public consultations and international focusing events such as Nutrition for Growth that feed into WHO and WHA fora and translate into binding and non-binding agreements, guidance on implementation and targets with regard to nutrition. This is quickly taken up into national policies in countries where local evidence supports the recognition of a public health problem (Hendriks et al. 2016).

The Global Nutrition Report 2016 estimated that 12 of the 17 SGDs included nutrition-related indictors (IFPRI 2016). Due to considerable and concerted effort by the nutrition community, internationally recognised and established nutrition indictors (WHO 2015a) have been included in the metrics for measuring achievement with the SDGs. Apart from nutrition-related indicators, only one direct measure of food security is included in the list of indictors – the Food Insecurity Experience Scale. Although, each SDG includes food security related indicators.

The crowding out of food security in the policy agenda due to increased attention to nutrition and the clarity of WHO guidance is evident in recent iterations of African policy documents

at continental and national levels. In these, the six World Health Assembly (WHO 2015a), nutrition targets and their measures are neatly integrated into national transversal monitoring and evaluation systems in many African countries. But, often at the neglect of the broader components of food security – especially elements relating to access and stability such as early warning systems, productivity targets, strategic food reserves, disaster preparedness and contingency planning for food shortages. The latter being critical indicators included among the 230 suggested SGD indicators.

For these reasons, this report uses the term food security and nutrition, applying the FAO 1996 definition of food security that was reiterated by the UN CFS in 2012 as the preferred terminology to avoid translation issues and to ensure that both concepts are adequately covered by the policy recommendations.

5. Food security and nutrition as a development and public policy imperative in Africa

Just as our understanding of food security as a concept has followed an incremental development path, so too has our understanding of food insecurity as a 'lived experience' (Hendriks 2015). With time and more research, we have come to a better understanding of the ways that various states of deprivation – hunger, under-nutrition, malnutrition and food insecurity – are related. Until the late 1990s, discussions and research in the field of food security focused on humanitarian crises and famines. However, the last famine in Europe was in the 1940s, in East Asia in the 1960s and in south Asia in the 1970s (Devereux 2009). North Korea faced a famine in 1990 but it was the product of a unique political economy rather than a typical food shortage (Devereux 2009).

Four famines in Africa that claimed hundreds of thousands of lives between 1999 and 2012 (Ethiopia, Malawi, Niger and the Horn of Africa) challenged earlier beliefs that famine was primarily related to food shortages. Unlike earlier famines in other parts of the world, these African famines were not the result of a shock (the onset of conflict or a food shortage) but rather from the failure of long-term development processes (Gross and Webb 2006). Even after political stability and economic growth have been restored, the impact of a famine lingers, leaving populations carrying the life-time burden of lost productivity.

However, we do not need to look at the extreme case of a famine to find examples of food deprivation. If we look at developing economies such as Brazil and India, we can see that economies can grow without proportional gains in the nutritional status of the poor (Gross and Webb 2006). Moreover, most deaths in children below the age of five do not happen in acute emergencies — they happen in relatively stable countries (Gross and Webb 2006). Of all food-deprivation-related deaths world-wide in 2004, only eight per cent were caused by humanitarian disasters, while 92 per cent were associated with chronic hunger and malnutrition (Gross and Webb 2006, citing the FAO State of the World Food Security, 2006). The plight of millions of undernourished children in non-emergency zones poses a significant

disaster risk unless longer-term coordinated development efforts help avoid disaster (Gross and Webb 2006). Such situations (as was the case in the Niger famine) are a springboard for a sudden leap in mortality when a disaster strikes. Gross and Webb (2006) describe the situation as a long-running silent emergency that lays the foundation for future disasters.

Barrett (2010) argues that most severe food insecurity is typically associated with natural and civil disasters. Yet most current food insecurity is not associated with catastrophes but with chronic poverty. Recent attention to development failure helps us understand food insecurity as the consequence of structural poverty and inequality (Hendriks 2013). Structural food insecurity is often the result of extended periods of poverty, lack of assets and inadequate access to productive or financial resources (Pangaribowo et al. 2013). Even in the developed world, hunger is linked to poverty, a situation where there are inadequate resources to obtain food. Poverty is therefore a significant predictor of hunger and food insecurity. People experience food insecurity when they are uncertain about their future supply of and access to food, when their intake (of energy as well as macro and micronutrients) is inadequate for a healthy life, or when they are obliged to resort to socially unacceptable means of acquiring food. In these situations of food insecurity, hunger and malnutrition are possible, though not necessary, consequences (Frongillo 2013).

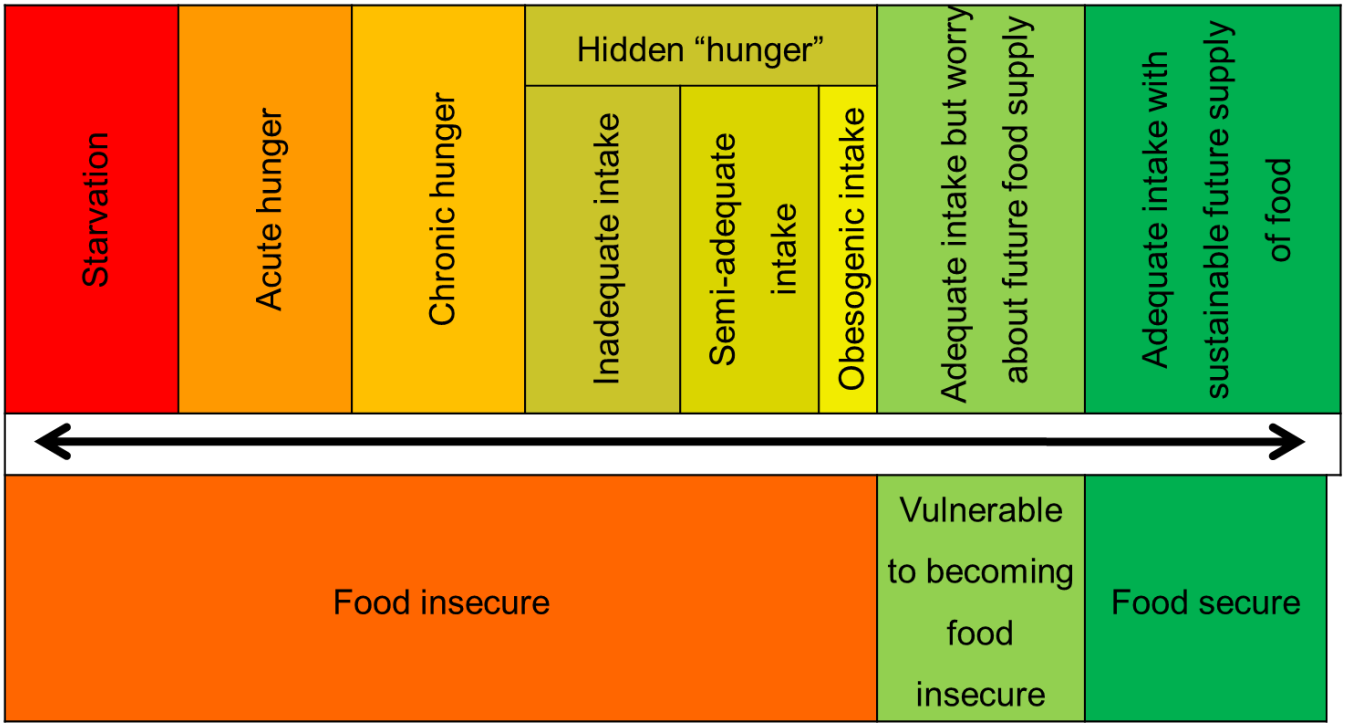
However, hunger and under nutrition are not the only possible consequences of food insecurity. Since 1995 there has been considerable debate about the link between food insecurity and obesity. The paradox (Caballero 2005) that poverty can make a person obese is now being explained, as we reach a better understanding of the mechanisms of food insecurity. We now understand that poverty is a significant predictor of food insecurity and that food insecurity is a risk factor for poor diets. Until recently, overweight was inevitably blamed on excessive food intake (Townsend et al. 2001). Frongillo (2013) notes that the belief that food insecurity causes only weight loss and not gain is strongly held and often comes with negative sociological and political overtones regarding the reasons why people live in poor conditions. However, poverty and food insecurity are both forms of material deprivation that have a range of harmful consequences that could well include excess weight gain (Frongillo 2013).

Food insecurity is not a single experience but a sequence of stages reflecting increasing deprivation of basic food needs, accompanied by a process of decision-making and behaviour in response to increasingly constrained household resources (Hendriks 2015). It is a continuum of experiences ranging from the most severe form, starvation, to complete food security, defined as a state in which all the criteria of the FAO (1996) definition of food security are met, and there is no worry about future food supply to meet these criteria (Figure 2). A point to note is that the food (in) security status of an individual or household is not static and can change over time.

Changes in food security status can be temporary, cyclical, medium-term or long-term (Figure 2). These changes may be caused by sudden reductions in the ability to produce or access enough food to maintain the necessary quantity and quality of dietary intake. Food

insecurity is usually seasonal or regular (over periods of a month) but may also be aperiodic, i.e., associated with temporary unemployment, episodes of ill health, or other recurring adverse events (Vaitla et al. 2009; Barrett 2010). Such events lead to changes in the food security status of individuals and households and a resultant shifting along the continuum, becoming sometimes more and sometimes less food secure.

The aim of national policies with regard to food security and nutrition, should be to move individuals and populations on the left hand side of the continuum towards food security (on the right hand side), and prevent individuals and populations from slipping from a better state of food security to a less desirable (and more deprived) state of being (on the left hand side of the continuum).



Hendriks, SL (2015). The food security continuum: a novel tool for understanding food insecurity as a range of experiences. Food Security, 7 (3): 609-619. http://www.springer.com/-/0/185029c009ab436c8717ac6b9bed22c7.

Figure 2: The food security continuum.

6. CAADP – food security and nutrition objectives

CAADP is the overarching policy framework for attaining food security, nutrition and sustainable development through agriculture-led investment at national and regional level within Africa. It is an unparalleled framework for agricultural transformation that has raised the political profile of agriculture and investments in the sector (Badiane et al. 2016). CAADP has been particularly successful in raising the profile of agriculture and reclaiming African ownership and leadership of the strategic agenda in the agricultural sector. It has

done so by promoting the transition to evidence-based planning and implementation and thereby increased the technical credibility of the agenda itself at the global level and of national agricultural strategies and programs at country level (Badiane et al. 2011).
CAADP was initiated through the Maputo Declaration on Agriculture and Food Security in Africa (AU 2003), and sought to achieve Millennium Development Goal one (MDG-1) to halve the levels of extreme poverty and hunger by 2015 (UN 2015). CAADP also took into account the importance of responding to emergencies and disasters with food and agricultural responses involving safety nets and resilience building for the long-term (Lokosang et al. 2016).

The CAADP actions have been structured under four interrelated pillars (AU 2003):

- Pillar 1: Extending the area under sustainable land management and reliable water control systems
- Pillar 2: Improving rural infrastructure and trade-related capacities for market access
- Pillar 3: Increasing food supply, reducing hunger, and improving responses to food emergency crises
- Pillar 4: Improving agriculture research, technology dissemination and adoption (NEPAD and AU 2009).

The Malabo Declaration on Agriculture and Food Security in Africa committed African countries to the review of existing policies and programmes, assessment of expenditure on agriculture and food security and the design and implementation of a set of national evidence-based priorities to achieve the Malabo targets. These targets include attaining at least six per cent annual growth in the agricultural sector, increasing agricultural productivity, attaining MDG 1 and investing at least 10 per cent of the national budget in the agricultural sector. The Malabo Declarations (AU 2014 a) reiterate this commitment but adapt these targets to attaining the SGDs and broaden the commitment to include achievement of core nutrition targets. Box 1 presents the progress of African countries on implementing the CAADP.

Box 1 Progress on CAADP implementation (as of August 2016) (Bahiigwa et al. 2016)

- 42 out of 54 AU member states had signed CAADP compacts, and 30 had developed related national agriculture and food security investment plans (NAFSIPs).
- 27 countries have launched their programmes against a structured financing plan.
- 17 countries in Africa have been approved for grants totalling US$611.5 million from the Global Agriculture and Food Security Programme (GAFSP) that was created in to support the implementation of these plans 2010.
- 10 African countries have signed cooperation agreements under the New Alliance for Food Security and Nutrition, which define commitments by various partners, including government, the private sector, and development partners. 12 countries have Grow Africa Partnerships, which arose from the World Economic Forum to attract and support private sector investment in Africa's agriculture sector.

Each CAADP Pillar has been guided by a framework for action. The CAADP Framework for Food African Food Security (FAFS) provided a framework for the implementation of CAADP Pillar III. Following the guidance of the Global Plan of Action and drawing inspiration from MDG one, the framework sought to provide guidance to countries on the design of their national plans to address structural, systemic and long-term aspects of chronic food insecurity challenges on the continent. The framework was developed as a deliberate attempt to ensure that the CAADP agricultural growth agenda targeted the chronically poor and vulnerable directly, instead of hoping for a trickle-down effect (NEPAD and AU 2009). The FAFS was launched at a meeting of 16 African governments at the height of the 2007/2008 world food crisis.

The CAADP FAFS was developed in 2008/9 by a team of 28 international experts on food security and nutrition. The framework was workshopped with various stakeholders in West and east Africa, with the Development Partners and at a consultative workshop facilitated and hosted by NEPAD in 2009. It was launched at a meeting of 16 African country delegations in May 2008 as they met to strategize regarding actions to manage the emerging global high food prices crisis.

The motivation and justification of the FAFS were based on the fact that despite the gains that have been made in agriculture, health care, and education across the continent, more than 40% of the population in sub-Saharan Africa lives on less than a dollar a day. Included in this group are three-quarters of the world's poorest people—those who live on less than 50 US cents a day. Although urban populations are growing, most of Africa's poor live in rural areas and depend on agriculture for food and livelihoods. The fact that the number of people affected by poverty and hunger in Africa is increasing means that agriculture is not meeting its potential as a driver for economic growth, and more and more people are "falling out" of the growth process.

The FAFS focused on the challenge of ensuring that vulnerable populations have the opportunity to both contribute to and benefit from agricultural growth—a focus that operationalizes CAADP's commitment to broad-based agricultural growth as the best way of achieving sustainable food security in Africa. The CAADP FAFS also recognized the need to reduce the vulnerability[2] of poor households to economic and climatic shocks, because of the clear linkages between repeated exposure to shocks, the erosion of household assets and coping mechanisms, and deepening poverty. Finally, the FAFS highlighted the linkages between poverty, hunger, and malnutrition—and the enormous threat posed by chronic hunger and malnutrition to the current and future productivity of Africa.

[2] Refers to an inability to cope with shocks, stresses and threats that affect availability, access and/or utilisation of food. Vulnerability to food insecurity implies a probability of necessary adjustments to consumption as households or individuals struggle to meet adequate consumption requirements.

The framework set out CAADP Pillar III's vision to increase resilience by decreasing food insecurity and linking vulnerable people into opportunities for agricultural growth, its relationship to the overall CAADP agenda and suggests actions at regional and country level. The FAFS therefore seeks to increase the resilience of vulnerable populations in Africa by reducing risks of food insecurity and creating linkages for participation in agricultural growth.

Food insecurity in Africa is a systemic problem. It is not acceptable that the occurrence of a single flood or drought creates a crisis in African food security. Nor is it acceptable that predictable year-on-year food assistance is required to fill the consumption gap of populations in Africa. African governments must have a plan of action to build resilience in order to address chronic food insecurity and mobilize community and national systems to deal with crises. Resilience is the ability for households, communities and countries to anticipate and mitigate risk by providing buffers and insurances to draw on and action plans to respond efficiently and quickly to shocks and crises in order to ensure rapid recovery post shock or crisis.

FAFS Target Groups: Although a number of issues addressed under Pillar III may overlap with the objectives and activities reflected in other CAADP pillars, a key difference is that activities carried out under Pillar III are targeted directly to vulnerable populations in order to both accelerate access to the benefits and impacts of agricultural growth, and to accelerate ability to contribute to that growth. It is important to note that Pillar III does not attempt to address all sources and types of vulnerability and food insecurity; rather, Pillar III activities target vulnerable populations most likely to be able to contribute to and directly benefit from increased agricultural growth.

Four specific strategic intervention areas were identified as the crucial barriers to improving Africa's food security and nutrition status were set out in the CAADP-FAFS. These are:

- Improved risk management: at the household, community, national and regional levels to inform decisions that ultimately build and protect assets and investments, and to strengthen national, regional, and community responses to climatic and economic shocks that risk and undermine the coping mechanisms of vulnerable populations.
- Increased supply of affordable commodities through increased production and improved market linkages: Increasing the supply of food through increased production and improved market linkages will increase the food available to households and communities. Strategies to increase the production of staple commodities are also more likely to affect poor small farm holders, increasing their incomes and extending the geographic reach of markets to underserved areas.
- Increased economic opportunities for the vulnerable. Identifying potential opportunities for diversification of livelihoods; particularly in support of adding value to agricultural production (through local processing, handling, transport, etc.) will both build resiliency and contribute to rural growth. Close coordination with strategies

undertaken under other pillars will improve outcomes under this objective, as will pro-active attempts to link safety-net interventions to access to agricultural inputs, credit, training, and other interventions capable of providing opportunities for the poor to accumulate, diversify and invest in assets.

- Increased quality of diets through diversification of food among the target groups. While investment in increasing the production of staple foods will have an immediate, significant, impact on the poor, increasing the ability of the poor to access sufficient protein and micronutrients through varied, nutritious diets is necessary to ensure sustainable gains in the battle against poverty, hunger and malnutrition.

The framework includes attention to the right to food for all Africa's citizens, specifically focusing on the more vulnerable groups of society, those chronically affected by hunger and malnourishment, with particular attention to women and children in addressing both long and short term effects (NEPAD and AU 2009).

The CAADP-FAFS further articulates a number of options for improving food access, principally including investment to provide incentives for local processing and marketing of nutritionally rich foods and public procurement programs to enhance market demand for nutritious foods. Rationalization of food price policies to improve incentives for production, processing and marketing of food favoured by vulnerable populations is advocated.

Figure 3 illustrates a NAFSIP framework for food security and nutrition.

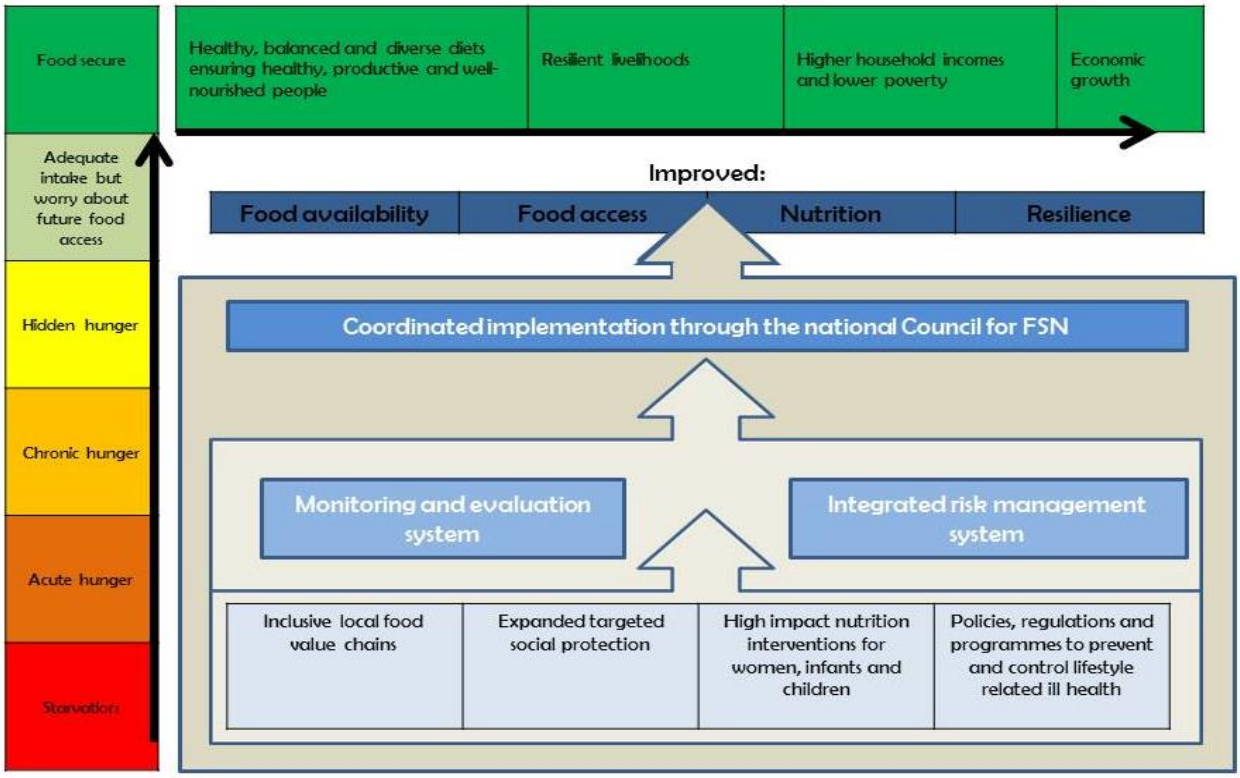


Figure 3: An example of a NAFSIP framework for food security and nutrition

Other equally important options include: development of community or homestead vegetable and fruit gardens; production of fish, poultry, and small animals (rabbits, goats, and guinea pigs); reduction of post-harvest losses and loss of the nutritional value of micronutrient-rich foods, such as fruits and vegetables; improvement of food storage and preservation; implementation of school-based gardening programs and improvement of food safety. These aspects of the framework point to the need for a more deliberate food systems approach to addressing food security and nutrition on the continent. CAADP has been instrumental in bringing about increased food production on the continent. However, it is also widely accepted that the increased food production has not equitably resulted in the levels of reduction in undernutrition that would be expected (Lokosang et al. 2016).

Nutrition targets of the ARNS 2015-2025 (AU 2014d)

- 40% reduction of the number of African children under 5 years who are stunted by 2025;
- 50% reduction of anaemia in women of child-bearing age in Africa by 2025;
- 30% reduction of low birth weight in Africa by 2025;
- No increase of overweight in African children under 5 years of age by 2025;
- Increase exclusive breast-feeding rates during the first six months in Africa to at least 50% by 2025;
- Reduce and maintain childhood wasting in Africa to less than 5% by 2025.

The framework is reinforced by a number of nutrition policies and frameworks at the continental, regional and national levels. This includes the African Regional Nutrition Strategy or ARNS (AU 2015b), which includes specific nutrition targets that are aligned to World Health Assembly Nutrition targets (Lokosang et al. 2016). Refer to Box 3 for a list of these targets. The ARNS 2016-2025 advocates concrete evidence-based interventions that are consistent with the globally agreed Comprehensive Implementation Plan for Maternal, Infant and Young Child Nutrition that was adopted at the 2012 Wealth Health Assembly (WHO 2014) and adopted by the 23rd AU ordinary session through the Malabo Declaration on ending preventable child and maternal deaths in Africa (AU 2014d).

The ARNS spells out four strategic areas to guide the AU and Member States in the governance of nutrition. These are:

- Definition of standards, norms, policies and frameworks for AU Member State adoption and ratification;
- Convening and facilitation of consensus on matters regarding nutrition security in Africa;
- Nutrition security policy and program advocacy and promotion; and
- Establishment of decision-making architecture for the implementation of the strategy.

Most nutrition policies in Africa focus on addressing undernutrition (stunting, wasting, under-weight and key micronutrient deficiencies like iron, zinc, iodine and vitamin A) (Lokosang et al. 2016). However, few pay attention to the growing problem of overweight and obesity now associated with developing economies (Steyn & Mchiza, 2014; IFPRIa,

2016). The ARNS 2015-2025 includes a target to retain or reduce overweight for under-five year old children to less than 5 per cent (AU 2015b).

The AU Agenda 2063, the African Union (AU) 2014-2017 Strategic Plan and the Malabo Declaration on accelerated agricultural growth and transformation for shared prosperity and improved livelihoods articulate the continental commitment to achieving SDG two. Two further Malabo Declarations on Nutrition Security for Inclusive Economic Growth and Sustainable Development in Africa. (2014b) and ending preventable child and maternal deaths in Africa (AU 2014d) reinforce the commitment to improving nutrition. Other African Union Commission initiatives support this commitment, including the CAADP Nutrition Initiative and the CAADP Nutrition Capacity Development Initiative in launched in 2011. In addition, 37 African countries are involved in Scaling -Up Nutrition programmes (SUN) (SUN, 2016).

Box 2. Nutrition related indicators included in the CAADP Results

- Prevalence of undernourishment
- Prevalence of underweight
- Prevalence of stunting
- Prevalence of wasting
- Minimum dietary diversity – women
- Minimum acceptable diet for 6-23 months old infants

While many first generation CAADP programmes included food security and nutrition programmes and activities, nutrition was not as well integrated into the programmes and monitoring systems for assessing the impact of these interventions on nutrition of specifically vulnerable groups were not always included in monitoring and evaluation systems (Covic and Hendriks 2016). Nutrition indicators have now been incorporated in the CAADP Results Framework (NEPAD, 2016) and will be included in the monitoring of CAADP implementation progress. Currently, the CAADP process is entering a second stage in which countries will review their first generation CAADP National Agriculture and Food Security Investment Plans (NAFSIPs) and design and implement second generation NAFSIPs. This is an opportune moment for Academies to rally behind national governments in providing the technical expertise and relevant evidence-based inputs to shape these investment plans.

7. The Malabo agreements and their implications for NAFSIPs

Understanding why addressing food security and nutrition is important for CAADP and the NAFSIPs begins with an understanding of the content of three declarations made at the Malabo Summit in 2014.

At the AU Summit at Malabo in 2014, three important declarations were made regarding food security and nutrition. These include:

- Declaration on Nutrition Security through Inclusive Economic Growth and Sustainable Development,

- Declaration on Ending Preventable Child and Maternal Deaths in Africa, and the
- Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods (AU 2014).

Each of these contains crucial elements that guide the review of past NAFSIPs and the design of the next generation of NAFSIPs. This guide looks at each agreement in turn and highlights the elements related to food security and nutrition.

The aim of NAFSIPS with regard to food security and nutrition should be to move individuals and populations on the left hand side of the continuum towards food security (on the right hand side of the continuum), and prevent individuals and populations from slipping from a better state of food security to a less desirable (and more deprived) state of being (on the left hand side of the continuum).

While measuring the state of being of individuals and populations at the stages of the continuum will include monitoring nutrition indicators, these are typically expensive to collect at scale and are therefore not collected at regular enough intervals at the population level to detect changes in the overall state of nutrition in the country. Deterioration of the state of nutrition can happen quickly (especially among children) or over time but due to the nature of nutrition information systems at the national level, these indicators are not sensitive enough to measure changes in the efficiency and impact of NAFSIPs. Because nutrition is measured at the individual level, aggregating nutrition indicators mask individual needs and pockets of the population that need urgent targeting with direct interventions.

Let’s turn to exploring the expression of these concepts in the three declarations relevant to food security and nutrition from the Malabo Summit of 2014.

8. Declaration on Nutrition Security through Inclusive Economic Growth and Sustainable Development

While the nutrition targets for CAADP are clearly set out in this declaration, the mechanisms for achieving progress towards the elimination of child under-nutrition are not provided. The pathways to achieving this are manifold and depend on the nature and severity (intensity, magnitude and length of the deprivation).

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DECLARATION ON NUTRITION SECURITY THROUGH INCLUSIVE ECONOMIC GROWTH AND SUSTAINABLE DEVELOPMENT IN AFRICA

1. COMMIT to ending child stunting bringing down stunting to 10% and underweight to 5% by 2025 and in particular, focusing on the first 1000 Days as the only window of opportunity during which permanent and irreversible physical and mental damage would be avoided; and
2. COMMIT to positioning this goal as a high-level objective in national development plans and strategies, and to establish long-term targets that give all children equal chance for success, by eliminating the additional barriers imposed by child under-nutrition;
3. CALL UPON Member States, who have not yet done so, to consider participation in the study on the Cost of Hunger in Africa and REQUEST the Commission, UNECA, WFP, UNICEF and other Development Partners to expedite the successful completion of the study, including wide dissemination of the results at country and regional levels;
4. REQUEST the Commission, the REC and Development Partners to facilitate the establishment of a continental-wide mechanism to monitor progress towards the elimination of child under-nutrition in Africa;
5. COMMIT to continue the dialogue and strengthen advocacy efforts in support of improved nutrition including through supporting the AU Champion.

Direct interventions are typically implemented through Ministries of Health or in emergencies, through development aid or humanitarian aid efforts. Direct efforts that target mothers and young children include elements related to the causes of malnutrition and include interventions related to maternal and child health, child care, sanitation and provision of nutritional support during pre-conception, during pregnancy, during breastfeeding and feeding of young children. Such interventions are also part of achieving the Declaration on Ending Preventable Child and Maternal Deaths in Africa, also signed at Malabo in 2014.

Having a nutrition strategy is essential for meeting nutritional needs and meeting various binding and non-binding international obligations to which African governments are signatories. These include:

- Two covenants contained in the United Nations (UN) Bill of Human Rights, namely the UN Convention on the Rights of the Child (1989) and the UN International Covenant on Economic, Social and Cultural Rights (1976).
- The 1974 Universal Declaration on the Eradication of Hunger and Malnutrition that indicates the right of all people to be free from hunger and malnutrition and UN General Assembly Resolution 67/174 on the Right to Food.
- All members of the UN pledge to respect these universal human rights and fundamental freedoms under Articles 55 and 56 of the UN Charter.
- Beijing Platform for Action that commits countries to ensuring that policies and programmes at all levels not only integrate gender but that they also promote gender equality.

Yet, achieving the goals of CAADP, Agenda 2063 and the SGDs has to include a suite of priority indirect actions that provide interventions at scale for population-wide impact. For these we look to the third declaration emanating from the Malabo Summit.

9. Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods

This declaration, commonly referred to as ‘THE Malabo Declaration’ is one of the three declarations relevant to nutrition agreed on at the Summit in Malabo. It contains many elements of the original CAADP Pillar 3 guiding framework or the Framework for African Food Security. These are highlighted in grey in the extract of sections relevant to food security and nutrition below.

MALABO DECLARATION ON ACCELERATED AGRICULTURAL GROWTH AND TRANSFORMATION FOR SHARED PROSPERITY AND IMPROVED LIVELIHOODS Doc. Assembly/AU/2(XXIII)

I Recommitment to the Principles and Values of the CAADP Process

III We commit to ending hunger in Africa by 2025, and to this end we resolve:
a) to accelerate agricultural growth by at least doubling current agricultural productivity levels, by the year 2025. In doing so, we will create and enhance the necessary appropriate policy and institutional conditions and support systems to facilitate:

- sustainable and reliable production and access to quality and affordable inputs (for crops, livestock, fisheries, amongst others) through, among other things, provision of „smart" protection to smallholder agriculture;
- supply of appropriate knowledge, information, and skills to users;
- efficient and effective water management systems notably through irrigation;
- suitable, reliable and affordable mechanization and energy supplies, amongst others.

b) to halve the current levels of Post-Harvest Losses, by the year 2025;
c) to integrate measures for increased agricultural productivity with social protection initiatives focusing on vulnerable social groups through committing targeted budget lines within our national budgets for:

- strengthening strategic food and cash reserves to respond to food shortages occasioned by periodic prolonged droughts or other disasters/emergencies;
- strengthening early warning systems to facilitate advanced and proactive responses to disasters and emergencies with food and nutrition security implications;
- targeting priority geographic areas and community groups for interventions;
- encouraging and facilitating, including the promotion of innovative school feeding programs that use food items sourced from the local farming community.

d) to improve nutritional status, and in particular, the elimination of child under nutrition in Africa with a view to bringing down stunting to 10% and underweight to 5% by 2025.

IV. Commitment to Halving Poverty by the year 2025, through Inclusive Agricultural Growth and Transformation

We resolve to ensure that the agricultural growth and transformation process is inclusive and contributes at least 50% to the overall poverty reduction target; and to this end we will therefore create and enhance the necessary appropriate policy, institutional and budgetary support and conditions:

a) to sustain annual agricultural GDP growth of at least 6%;
b) to establish and/or strengthen inclusive public-private partnerships for at least five (5) priority agricultural commodity value chains with strong linkage to smallholder agriculture;
c) to create job opportunities for at least 30% of the youth in agricultural value chains;
d) to support and facilitate preferential entry and participation for women and youth in gainful and attractive agri-business opportunities.

V. Commitment to Boosting Intra-African Trade in Agricultural commodities and services

We commit to harness markets and trade opportunities, locally, regionally and internationally, and to this end we resolve:

a) to triple, by the year 2025, intra-African trade in agricultural commodities and services; ….
b) …

VI. Commitment to Enhancing Resilience of Livelihoods and Production Systems to Climate Variability and other related risks

We commit to reduce vulnerabilities of the livelihoods of our population through building resilience of systems; and to this end we resolve:
a) to ensure that, by the year 2025, at least 30% of our farm, pastoral, and fisher households are resilient to climate and weather related risks;
b) to enhance investments for resilience building initiatives, including social security for rural workers and other vulnerable social groups, as well as for vulnerable ecosystems;
c) to mainstream resilience and risk management in our policies, strategies and investment plans.

VII. Commitment to Mutual Accountability to Actions and Results

We commit to a systematic regular review process, using the CAADP Results Framework, of the progress made in implementing the provisions of this Declaration; and to this end we resolve:
a) to conduct a biennial Agricultural Review Process that involves tracking, monitoring and reporting on progress;
b) to foster alignment, harmonization and coordination among multi-sectorial efforts and multi-institutional platforms for peer review, mutual learning and mutual accountability;
c) to strengthen national and regional institutional capacities for knowledge and data generation and management that support evidence based planning, implementation, monitoring and evaluation.

VIII. Strengthening the African Union Commission to support delivery on these commitments

IX. A Call for Action

We commit to an expedient process of translation of these commitments into results; and to this end we call upon:

c) the AU Commission and NPCA, in collaboration with partners:
- to develop mechanisms that enhance Africa‟s capacity for knowledge and data generation and management to strengthen evidence based planning and implementation;

- to institutionalize a system for peer review that encourages good performance on achievement of progress made in implementing the provisions of this Declaration and recognize biennially exemplary performance through awards;
- to conduct on a biennial basis, beginning from year 2017, Agricultural Review Process, and report on progress to the Assembly at its January 2018 Ordinary Session.

f) the African Agricultural Research and Knowledge Institutions to vigorously support the realization of this agenda through an integrated and coherent manner, building on national systems and capacities;

When compared to the guidance for development of the CAADP NAFSIPs provided in the FAFS, very little has changed with regard to the technical elements required for the NAFSIPs, except that there is greater awareness of the importance of prioritizing nutrition in the first 1000 days and a more explicit understanding today of the linkage between child nutrition and achieving sustainable development goals. The same nutrition indicators recommended for monitoring and evaluation in the Declaration on Nutrition Security through Inclusive Economic Growth and Sustainable Development were recommended for inclusion in the NAFSIPs through the FAFS guidance. Only, this time, they are included as a formal element of the CAADP Results Framework.

Based on the current Malabo Declarations and SDG2 elements, the last objective should be updated to reflect improved nutrition as the goal in the second generation NAFSIPs.

10. Linking results to the overall goals of CAADP and SDGs for poverty, hunger and malnutrition.

Progress made through CAADP's food security and nutrition components will contribute directly to the overall CAADP objective of achieving a growth rate sufficient to reach the Agenda 2063 and SGD goal 2. Progress will be measured through:

- Improvement in food security indicators
- Reduction of malnutrition in all its forms
- Improvement in the household asset and/or income levels of targeted vulnerable populations.
- Improved coordination of activities

Once vulnerable populations targeted under Pillar are identified and quantified, establishing the levels and rates of change in these indicators required to contribute to CAADP and the SGD goals is a critical component of the implementation of the NAFSIPs at the country level.

11. Developing an Operational Plan for Food Security and Nutrition as part of the NAFSIPs

Developing a regional or country-level strategy entails the following steps:

i. Identify the acutely and chronically food insecure and those vulnerable to chronic food insecurity, creating a typology of groups for targeting based on the causes of food insecurity;
ii. Identifying the malnourished in society, creating a typology of target groups based on the causes of malnutrition in the country;
iii. Programme review – creating an inventory of what programmes are already implemented and review of the efficiency and impact of these in achieving the goals of CAADP;
iv. Estimate the magnitude of change required to achieve the objectives of CAADP, set the targets to be achieved with regard to food security and nutrition in the period of planning and establish a set of key indicators to monitor and track progress towards these targets
v. Identify and create an inventory of options to achieve the objectives of the vision;
vi. Prioritize interventions and costing options to focus on the best returns for an investment plan and addressing the necessary conditions to meet objectives;
vii. Policy review (including the statutory context, governance arrangements and legislation as well as Constitutional obligations and the obligations of the State with regard to international and regional treaties, conventions and pledges; especially with regard to human rights, the right to food, child rights and gender equality) and establishment of a transversal[3] policy framework for food security and nutrition to achieve the targets and overcome bottlenecks and barriers to implementation at the policy, coordination and implementation levels
viii. Institutional architecture review, assessment and establishment of implementation modalities, roles, responsibilities (including inter-governmental powers and functions) and coordination
ix. Establish a framework for mutual accountability including an information system to monitor and evaluate progress towards the targets and report on progress
x. Finalize and package an integrated programme that includes an investment and operational plan and arrangements.
xi. Implementation of investment programmes, monitoring and evaluation, peer review and continual refinement of country strategies, policies and programmes.

[3] As food security is a multi-sectoral function, a specific food security or food security and nutrition policy is useful but more important is having an overarching transversal (across sector) policy framework that brings into alignment the various elements that ensure food security – from seed policy, to production, marketing trade, food safety, early warning systems and nutrition.

Below is an example of how priority food security and nutrition programmes of a NAFSIP can contribute to achieving the overall goals of CAADP, Agenda 2063 and the SGDs

11.1. Step 1. Identify the acutely and chronically food insecure and those vulnerable to chronic food insecurity, creating a typology of groups for targeting based on the causes of food insecurity

11.2. *Step 2.* Identifying the malnourished in society, creating a typology of target groups based on the causes of malnutrition in the country

The first activity includes the identification of indicators. Identify the sources to be used to obtain such information. The list of possible sources includes censuses that are or will be implemented by different agencies, information collected in ReSAKSS, and country knowledge system nodes, household surveys, as well as surveys of specific social service providers, and the design of a specific format for data and information requirements for the different agencies involved in the process of CAADP.

Next, collect the information from the identified sources permanently over time and measurement of the evolution of the monitoring and impact indicators identified. All this information should then be uploaded into an internet interface so that each country can follow the evolution of the monitoring and impact indicators over time and relative to other countries in the region.

First, in general terms the following are determined:

- Current level of food supply and balance of imports vs exports
- Stock levels
- Food aid receipts
- Food losses and waste
- The extent of the impact of growth on poverty (ratio of agricultural growth to rate of poverty reduction).
- Poverty and unemployment rates
- Food security indicators:
  - Number of hungry people
  - Number of people receiving food aid

  - Asset levels
  - Proportion of expenditure spent on food
  - Per capita income
- Dietary diversity score
- Nutrition indicators:
  - Undernourishment (percent); prevalence of underweight, stunting and wasting in children under five disaggregated by gender
  - Minimum dietary diversity for women aged 15-49 years
  - Minimum acceptable diet for children aged 6-23 months
  - Women's BMI
  - Overweight for children under five
  - Prevalence of anemia in women and children under five
  - Rates of zinc, vitamin A and iodine deficiencies in children under two and children under five

Then, create a typology of who the neediest are and who should be the priority target groups (by age, sex and location). The following questions need to be answered:

- Who are the acute and chronically food insecure populations?
- Who are the most malnourished people?
- How many people are chronically food insecure, undernourished and fragile people and populations?
- What are their characteristics and location?
- Why are they food insecure or undernourished? What are the sources and types of vulnerability?
- Who of these target groups are more likely to participate in or benefit directly from direct and indirect interventions?

11.3. Step 3: Programme review – creating an inventory of what programmes that are already implemented and review of the efficiency and impact of these in achieving the goals of CAADP

Overcoming food insecurity and improving nutrition requires comprehensive policies, legislation, programmes, service delivery and monitoring. Most African countries have a plethora of policies, strategies and programmes addressing food security broadly. However, they often lack a national vision for food security (in its true meaning) and nutrition and few have comprehensive, consolidated results-oriented action plans. Consequently, there is a lack of policy coherence. Fragmentation in the regulatory system and lack of harmonised policies, legislation and approaches of stakeholders (e.g. trade benefits vs health benefits) hinders

implementation. No coordinating structure/body provides appropriate leadership and authority to reduce duplication and ensure efficient use of constrained resources. There is often lack of clarity on roles and responsibilities leading to a lack of accountability. Often there is no comprehensive national monitoring and evaluation framework and set of agreed upon indicators to determine if all the activities are making an impact. Many countries do not have a single information system to provide comprehensive data for decision-making.

n addition, often implementation capacity at all levels is weak (especially with regard to community-based interventions and inter-sectoral coordination). There are leakages, bottlenecks and a lack of quality assurance in delivery. Coverage with regard to agricultural programmes, nutrition and social services is uneven and the most needy are often not able to access essential services and support. Human capacity is often lacking in many areas, especially with regard to community-based interventions. Referral systems across departments are lacking, resulting in mismanagement, leakages and duplication of services. This leads to inclusion and exclusion errors in targeting and in cases of severe under-nutrition contributes to increased mortality among infants.

Identify the food security and nutrition-related programmes already implemented by government and other agencies in the country and document any reviews of their efficiency and impact:

- What programmes are already implemented?
- By who?
- Who do they target? Do they reach the targeted groups identified in steps 1 and 2?
- Is there duplication of effort?
- Are the specific gaps?
- How efficient are they in achieving the goals of CAADP?

11.4. Step 4: Establish a set of key indicators to monitor magnitude of change required to achieve the objectives of CAADP, set the targets to be achieved with regard and track progress towards these targets

Based on the CAADP Results Framework and national priorities establish a set of critical indicators and set the targets for attainment in the planning period.

- What is the rate and level of change (in these target groups) required to meet the overall CAADP objective of achieving a growth rate sufficient to achieve SDG 2?

11.5. Step 5: Create an inventory and identify options to achieve the objectives of the vision

Gillespie and Dafour (2016) state that much progress has been made this decade in facilitating communication between agriculture and nutrition stakeholders through elucidating the conceptual basis for links but much more needs to be done to leveraging agriculture for nutrition. This requires (i) creating and strengthening institutional and policy environments that enable agriculture to support nutrition and health goals, (ii) making agricultural policy and practice more nutrition sensitive and therefore more effective in improving nutrition and health, and (iii) developing capacity and leadership to use evidence-informed decision making to enhance the impact of agriculture on nutrition and health (Gillespie and Dafour 2016). Nutrition-sensitive programs draw on complementary sectors such as agriculture, health, social protection, early child development, education, and water and sanitation to affect the underlying determinants of nutrition, including poverty; food insecurity; and scarcity of access to adequate care resources and to health, water, and sanitation services. Key features that make programs in these sectors potentially nutrition sensitive are that they address crucial underlying determinants of nutrition, they are often implemented at large scale and can be effective at reaching poor populations who have high malnutrition rates, and they can be leveraged to serve as delivery platforms for nutrition-specific interventions (Ruel and Alderman 2013).

The Global Panel on Agriculture and Food Systems for Nutrition's depiction of the links between diet quality and food system drivers (Figure 4) demonstrates the inter-linkages between the components of food systems, the food environment, consumption and diet quality and provides a useful tool for policy makers.

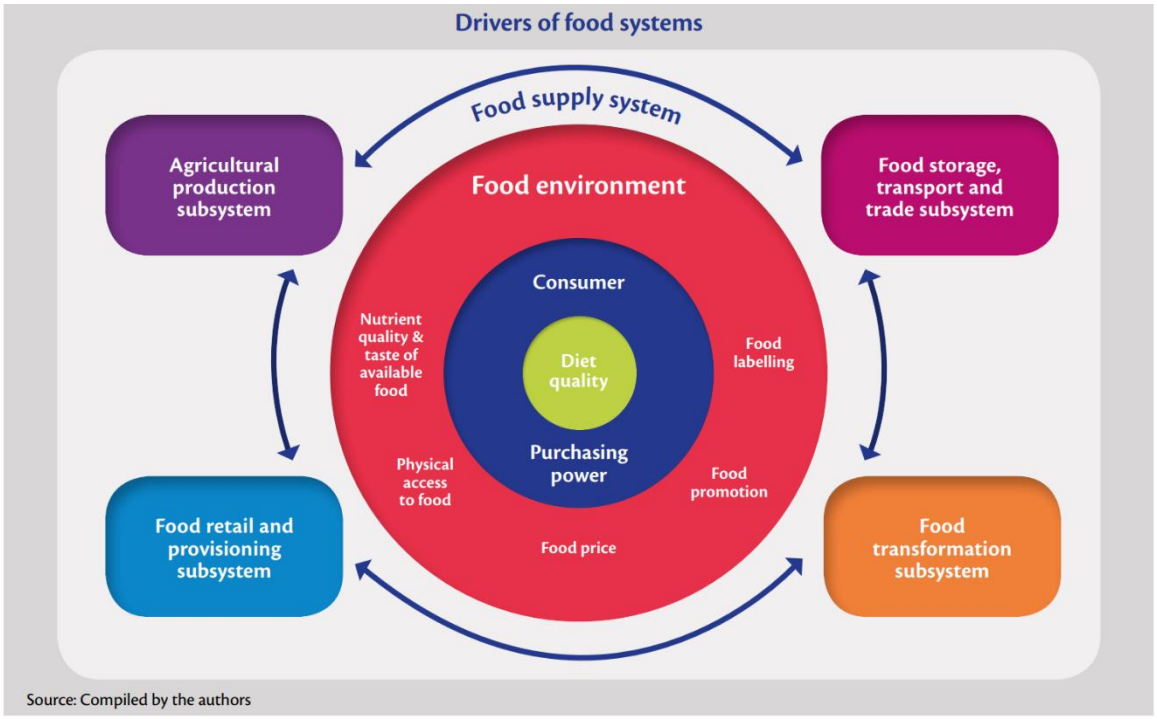

Figure 4: Conceptual framework for the links between diet quality and food systems (Global Panel on Agriculture and Food Systems for Nutrition, 2016)

For each the four objectives identified in the FAFS (improved risk management; increased supply through increased production and improved market linkages; increased economic opportunities for the vulnerable; and increased quality of diets among the target groups), explain:

- How each option could contribute to achieving the vision/objectives, namely improve food security at the household and national level and reduce malnutrition;
- What type of change is expected[2];
- How it helps the vulnerable and achieving the goals;
- Who could be engaged/participate in implementation?

.

This will include an inventory of programmes, policies and institutions; implementers; stakeholders; and partners. Stocktaking will also include establishing a baseline to assist in identifying and evaluating the impact of various options to achieve the objectives above. Stocktaking will require answering the following questions in consultation with stakeholders, including the target groups themselves. The following questions need to be asked.

Improved risk management

- Do you have an operational Early Warning System (EWS[4]) that allows you to measure, monitor and track groups who are vulnerable to food insecurity and shocks

[4] EWS include indicators related to production, exchange, and consumption at national, regional and community levels for the analysis, monitoring, prediction of potential food crises and estimation of emergency food requirements.

(e.g. droughts, floods, market and other shocks), their characteristics and where they live and respond proactively?

- Do you have a sufficiently resourced and functioning programme (including time-bound targets and indicators of progress) to reduce vulnerability to droughts, floods, market and other shocks and are you making progress towards the targets?
- Do you have a crisis response system in place including mechanisms, triggers, teams/actors and emergency resources at national and community levels? This includes strategic food or cash reserves to respond to food shortages.
- Do the Government and Development Partners have a framework and commitment that are supportive of the risk management items outlined above? This includes contingency planning for emergencies and shortages.
- Are there social protection programmes in place? This could include school feeding programmes and other food, cash or in-kind transfer programmes targeted to the neediest.
- Is there a climate change strategy in place that includes resilience building initiatives, including social security for rural workers and other vulnerable social groups, as well as for vulnerable ecosystems
- Are there constraints to achieving this objective that must be addressed through another NAFSIP element?

Increased food supply through improved production and market linkages

- What are the primary sources of food for the chronically food insecure or those vulnerable to chronic food insecurity? ie. Are they net purchases of food?
- What is their current production and consumption (amount and types of foods)?
- What are appropriate and sustainable options for increasing production of food?
- Do they have access to the services that will allow households to exploit their food production potential?
- What are the options to improve market access and operations in the areas where the vulnerable are located to improve food availability?
- What are the policy constraints to increasing production and improving markets for the target groups?
- Are there constraints which must be addressed under other NAFSIP elements?

Increased economic opportunities for the vulnerable

- Are the current sources and levels of incomes and assets of these targeted groups increasing sufficiently to sustainably achieve/improve their food security and nutritional status?
- Do other opportunities exist to improve their food security status, resilience and contribution to growth beyond what is possible under their current activities?
- Do environmental, institutional and policy constraints prevent them from effectively protecting, using and expanding their assets, incomes and livelihood opportunities to sustainably improve their food security status?
- Are these constraints addressed through interventions undertaken under another pillar? If not, how will they be addressed?

Improved nutrition for all through the life-cycle

- What are the levels of malnutrition (undernutrition, hidden hunger and overweight and obesity)?
- Does a nutrition strategy exist in the country and is it being implemented?
- What direct actions are required related to maternal and child health, nutrition, sanitation and child care?
- What are the viable options and actions to increase the access by target groups to diversified food production and supply to improve micronutrient intakes year-round?
- To what extent are bio-fortification, fortification, food processing and safety technologies being applied at all levels of the food chain to improve dietary quality of the target groups?
- What are the environmental, institutional and policy constraints to food fortification?
- Do mechanisms exist to address these constraints under CAADP? If not, what is the appropriate forum to raise these issues?

11.6. Step 6: Prioritizing and costing options to focus on the best returns for an investment plan and addressing the necessary conditions to meet objectives

In consultation with various stakeholders, the options identified need to be prioritized in terms of what is the best way to increase assets and incomes and improve food security and nutrition against the following criteria. Does the action:

- Build resilience to food insecurity of the target groups?
- Reduce malnutrition across the life-cycle
- Reduce food insecurity AND build assets for the target group?
- Help achieve the rate and level of growth required to meet SDG2?
- Have a direct impact on agricultural growth?
- Have a scale that leads to a significant and widespread impacts on the targeted groups?
- Build and/or strengthen Africa's capacity for sustainability of development actions?
- Providing evidence-based cost-effective investments to achieve the objective?

11.7. Step 7: Policy review

Another important clarification of terminology that is required for clarity is to understand what a policy is and is not. A public policy is a statement of intent and objectives relating to the health, morals, and wellbeing of the citizenry that guides or channels thinking and action

in decision-making. It seeks to influence and determine strategies and decisions. The policy statement will guide the identification of the most appropriate actions and interventions to be taken to address a problem or achieve an objective. Very often interventions and programmes are incorrectly referred to as policies, creating confusion. Overcoming food insecurity and improving nutrition requires comprehensive policies, legislation, programmes, service delivery and monitoring systems. Policies require continual review and reform to take stock of current trends, reflect on the effectiveness of programmes and institutions and make adjustments to ensure that progress towards strategic national priorities is on track.

Initiating a process of policy change to address inefficiencies, deficiencies and overcome constraints and barriers. The figure below presents the policy review process components (Resnick et al. 2015). See http://fsg.afre.msu.edu/fsp/Resnick_DP.pdf for more detailed information on the process.

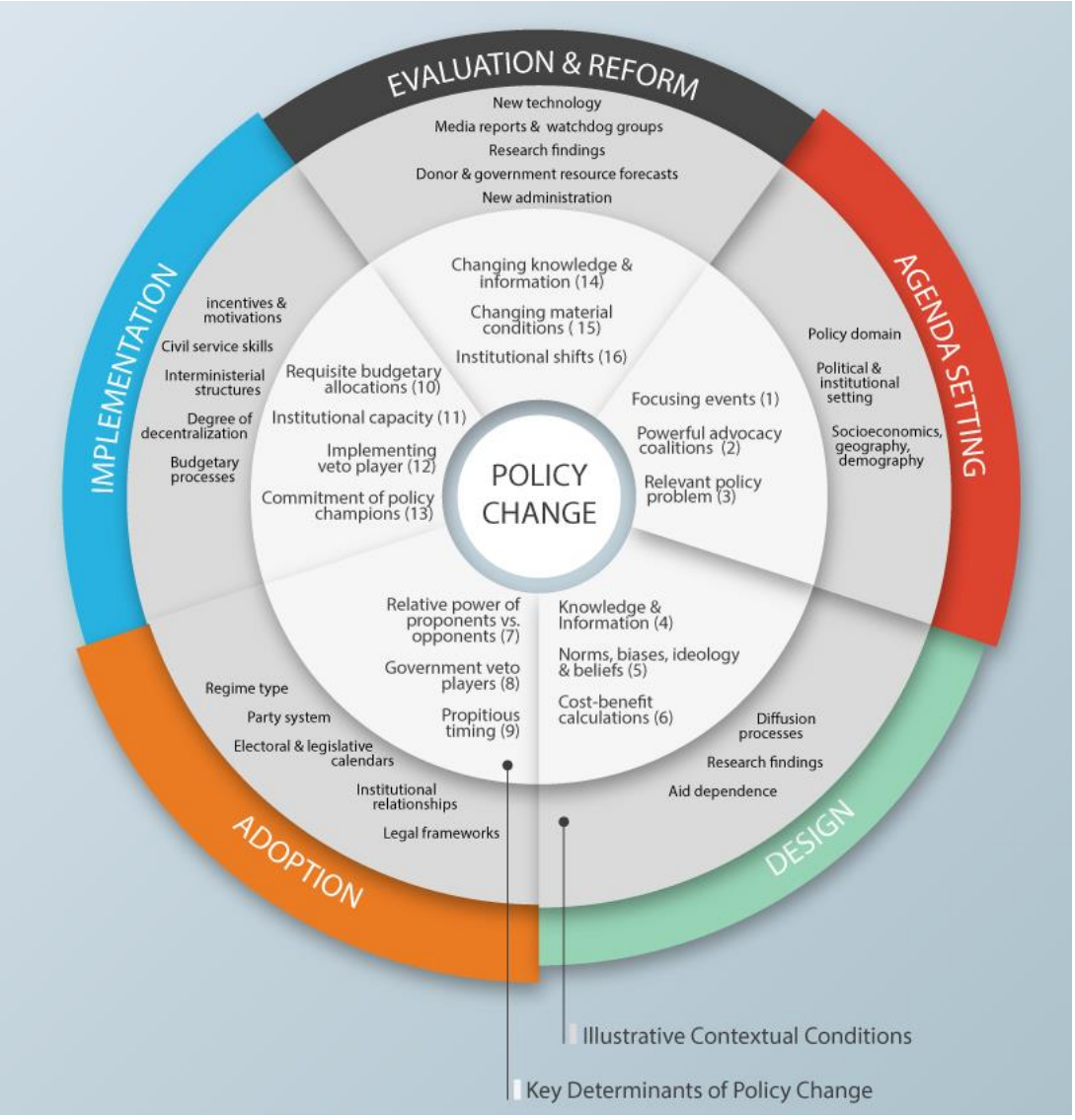

Figure 5 The Kaleidoscope Model for change for food security policy (Resnick et al. 2015)

This includes a review of the:

- Policies in place that relate to or affect food security and nutrition
- Statutory context, governance arrangements and legislation with regard to food security and nutrition
- Constitutional obligations
- Obligations of the State with regard to international and regional treaties, conventions and pledges; especially with regard to human rights, the right to food, child rights and gender equality) and
- Identification of bottlenecks and barriers to implementation at the policy, coordination and implementation levels

These processes hep with the establishment of a transversal[5] policy framework for food security and nutrition to achieve the targets and overcome the bottlenecks and barriers to implementation at the policy, coordination and implementation levels. This process will identify policy change and reform necessary to implement the NAFSIP.

11.8. Step 8: Institutional architecture review, assessment and establishment of implementation modalities, roles, responsibilities (including inter-governmental powers and functions) and coordination

Achieving all of the above requires a comprehensive food systems approach to agricultural development across the continent. The FAO (2015a) states that there is no set formula for achieving sustainable improvements in curbing malnourishment this often requires transforming political commitments into:

- High-level leadership and improved governance
- Public-private partnerships and
- Comprehensive and complementary approaches to create an enabling environment.

USAID (Hill 2015) asserts that comprehensive agriculture, food security and nutrition policies require three elements:

- A prioritised national agenda for growth and development
- Institutional structures and capacity
- Mutual accountability.

[5] As food security is a multi-sectoral function, a specific food security or food security and nutrition policy is useful but more important is having an overarching transversal (across sector) policy framework that brings into alignment the various elements that ensure food security – from seed policy, to production, marketing trade, food safety, early warning systems and nutrition.

Not only have African countries embarked on agricultural transformation processes; but comprehensive agriculture, food and nutrition policies have led to significant overall progress in addressing food insecurity and undernutrition. ReSAKSS (Bahiigwa et al. 2016) report that as of August 2016, 26 countries had food reserves, local purchase for relief programs, early warning systems, and feeding programs. Eight countries had formulated new or revised NAFSIPs through an inclusive and participatory process, mainly in Eastern Africa. Seventeen countries had inclusive, institutionalized mechanisms for mutual accountability and peer review (mainly JSRs), predominantly in Western Africa. Six countries were implementing evidence-informed policies with adequate human resources in place. Fifteen countries had functional multi-sectoral and multi-stakeholder coordination bodies—mainly agricultural sector working groups, primarily in Western Africa. Five countries had successfully undertaken agriculture-related public-private partnerships (PPPs) aimed at boosting specific agricultural value chains. Tanzania and Uganda are the only two countries that reported the cumulative value of their PPPs, at US $3.2 billion and $156 million, respectively (Bahiigwa et al. 2016).

This step included mapping out the institutional landscape with regard to decision-making, implementation and accountability for food security and nutrition policies and programmes ad review of whether these structures provide a transversal coordination and accountability structure to ensure efficient allocation of resources, capacity and accountability to implement the priorities identified.

Without comprehensive policies and strong institutions to coordinate and manage food security at the national and sub-national levels, governments and states are unlikely to make significant and rapid progress towards the SDGs (Hendriks and Covic 2016). As we know well, food security is a complex concept, requiring a comprehensive policy framework and leadership coordination that creates coherence in policy and actions across multiple sectors and levels (Hendriks and Covic 2016). While much can be done to improve food security through local initiatives and projects, it is most unlikely that a national-scale programme will succeed without strong leadership and visible signals of commitment from the highest levels in government (FAO 2015). Food security and nutrition need to be positioned as priorities at the highest level of governance within an integral element of funded comprehensive growth and development strategies. (Hendriks and Covic 2016). This usually requires:

- New institutional arrangements to bring together the various actors within government, the private sector, and civil society (FAO 2015a).
- Creating and strengthening institutional and policy environments that enable agriculture to support food security as well as nutrition and health goals
- Establishment of strong institutional structures to coordinate efforts and ensure that existing resources in agriculture, social protection, education, water and sanitation are leveraged to scale up high impact interventions. This is usually more effective when located at the highest level of government.

FAO (2015a) reports that there is evidence of a link between improvement in food security and nutrition, and country performances in terms of government effectiveness and

governance. The latest World Bank estimates of Worldwide Governance Indicators show that most of the countries which have either achieved or made progress towards the WFS and MDG targets, and those which achieved one target and made progress in the other have also improved their performance in terms of controlling corruption and improving government effectiveness (FAO 2015a). In Benin, Cabo Verde, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mauritius, Rwanda and South Africa government effectiveness scores in 2013 were far higher than the Sub-Saharan African average or the scores have increased sharply between 1996 and 2013 as is the case of Niger.

These governance institutions need to have established independent guidance platforms on emerging issues in the global, continental and national food security and nutrition domain. Independent transdisciplinary advisory planes could provide two important functions. First, the can provide up to date and to provide a ready source of evidence-based analysis and policy input. Second, as the concept of food security is iterative and our understanding of its complexities unfold with increasing insight into the interactions of the multiple causes and the impact of these on the lives of people across the globe. Such panels could help keep government officials up to date with a diverse range of new policy insights and developments in the international arena amidst very strong competing competition for their time (and budgets).

From an institutional perspective, coordinating structures and systems are a prerequisite for self-sustaining food security at the national level. This requires, amongst others, effective and efficient intergovernmental relations (IGR) structures and systems, as well as consultative forums with organs of civil society and beneficiaries. If a high-level coordination authority such as a National Council for Food Security and Nutrition does not exist, this should be established as a priority.

In implementation, there are various roles of different players. Implementation recognizes there are key players including government, private sector, development partners, technical agencies, NGOs, CBOs, research institutions, producers and organizations, civil society that are involved in implementation. Leadership and coordination is required to ensure all activities contribute to a common agenda, there is accountability, progress is measured and lessons shared. At regional and country levels, the leadership and coordination structure will vary depending on existing capacities and established roles. Once the components of a Pillar III/FAFS strategy or action plan is agreed to, regional or country-level stakeholders will review options for governance, and identify issues and responsibilities for implementation, monitoring and evaluation of the prioritized Pillar III activities as follows:

- What are the current institutions and capabilities?
- Are there mechanisms to facilitate coordination and communication?
- Are there systems for inter-ministerial actions?
- Who are the most effective implementing agencies and why?
- What are the existing/appropriate institutions for implementation, monitoring, and evaluation?

- Who are the best partners/implementers in terms of synergies and complementarities?
- What are the most appropriate cost-effective policy options that would bring about greater impact?

11.9. Step 9: Establish a framework for mutual accountability including an information system to monitor and evaluate progress towards the targets and report on progress

The effectiveness of the NAFSIP will be determined by a national monitoring and evaluation system operated and learning from the lessons of the NAFSIP outcomes process. This depends on the existence or establishment, maintenance and delivery of data and knowledge products, reports and information. A set of indicators for monitoring the outcomes and impact of the food security and nutrition component of the NAFSIP against identified targets will need to be established.

Review and assessment processes will only be able to assess the impact of the NAFSIP on development outcomes to the extent that they these processes are well informed and supported through accurate and intelligent data derived from rigorous analysis of:

a) The strategic and operational challenges of implementing the NAFSIP at all levels;
b) The adequacy of the conception and execution of the policy and regulatory measures and programmes and policy measures adopted to address these challenges; and
c) The outcome and impact of the actions in terms of achieving the goal of the NAFSIP and its targets. This requires human capacities, technical infrastructure, analytical tools, and communications instruments to gather the relevant data and information and analyse it to generate credible, high-quality knowledge products, which can be stored and accessed as needed to inform and guide the debate associated with the review and dialogue processes.

A sound monitoring and evaluation system for will provide:

a) Knowledge management to mobilise existing networks and expertise to assemble the needed capacities and knowledge and provide first-rate analytical and advisory services regarding the design, implementation, and evaluation of the Plan;
b) Collect, collate and analyse data to support the implementation, performance appraisal, review and evaluation of the NAFSIP and its components;
c) Generate, disseminate, and provide knowledge products to support implementation of the NAFSIP, particularly shared standards and protocols for the collection,

storage, and exchange of data as well as cutting-edge methodologies for policy and strategy analysis and integrated data system management for programmes;

d) Support the review and dialogue process to provide relevant and timely information to guide performance appraisal, review and impact evaluations; and
e) The above capacities, tools, and instruments are needed both at the various levels and can be acquired by building upon and strengthening existing institutions and expert networks.

It is internationally recognised that there is no 'perfect single measure that captures all aspects of food insecurity' and that food insecurity is not a homogeneous condition easily measured in economic, energy-availability or anthropometric terms (Webb et al. 2006, p1405S). Much food security research since the 1974 global food crisis has focused on understanding the causes of food insecurity in a variety of contexts or developing indices for measuring it (Hendriks 2015). Yet, after decades of intensive discussion and indicator development, we still do not have a universally accepted food security measurement system that we can apply across emergency and non-emergency contexts and use to develop interventions. One reason for this is the difficulty we experience in getting a grip on all the various strands of the problem. If we are to target our interventions effectively, we need to define the experiences, causes and consequences of food insecurity clearly and understand how the multiple dimensions reinforce each other and compound the problem. Such clarity will help us to predict more accurately who is most likely to be adversely affected by shocks, design more appropriate programs, and determine whether our interventions are working for the intended beneficiaries.

The CAADP Results Framework sets out clear indicators and targets for countries. These indicators provide the core set of indicators required for NFSIP reporting at the regional and continental levels but countries may include other indicators depending on their national development framework and goals.

11.10. Step 10: Finalize and package an integrated programme that includes an investment and operational plan and arrangements.

11.11. *Step 11:* Implementation of investment programmes, monitoring and evaluation, peer review and continual refinement of country strategies, policies and programmes.

References

To be completed.