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Organization of the
United Nations

2016

Africa

REGIONAL OVERVIEW OF FOOD SECURITY AND NUTRITION

**THE CHALLENGES OF
BUILDING RESILIENCE
TO SHOCKS AND STRESSES**

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Throughout this publication, the regrouping of countries into subregions follows the new M49 country classification adopted by the United Nations in October 2013, which is accessible at <http://unstats.un.org/unsd/methods/m49/m49regin.htm>

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FOREWORD

Since 2015, sub-Saharan Africa has again experienced severe climate-induced disruptions because of the El Niño and La Niña weather phenomena. In terms of severity and extent, the ongoing El Niño and La Niña, with their related droughts and floods, are considered the worst since the turn of the century, and have affected the livelihoods of tens of millions of poor households. This is compounded by the increasing frequency of other shocks — civil strife and conflicts, increasing incidence of transboundary plant and animal pests and diseases as well as socio-economic shocks — that are likely to reverse years of progress, undermining efforts by African governments to attain food security and nutrition.

Owing to the importance the Food and Agriculture Organization (FAO) and the United Nations Economic Commission for Africa (UNECA) attach to resilience-building, the theme of the 2016 edition of the Regional Overview of Food Security and Nutrition in Africa is: “The challenge of building resilience to shocks and stresses”. Thus, an entire section of this report (Part Three) focuses on issues and response mechanisms for building resilience of the most vulnerable populations to shocks related to food security and nutrition in the context of climate change and conflicts. The report presents respectively in Parts One and Two, the prevalence and trends in malnutrition, and policies and programmes in support of their improvement.

This 2016 edition of the report introduces a new tool to help enhance our understanding of food security and nutritional status, with the view to inform policy-planning and effective implementation. This tool, referred to as the Food Insecurity Experience Scale (FIES), is an experience-based metric of food insecurity severity that relies on people’s direct responses to questions regarding their access to adequate food. Inspired by evidence from two decades of application of similar measurement tools in many countries, the FIES provides more reliable population estimates of food insecurity that are comparable across different countries and cultures.

As no single tool can account for the multiple dimensions of food and nutrition security, the FIES complements existing sets of food and nutrition security indicators including the Prevalence of Undernourishment (PoU) indicator. It is a new metric for individuals or households’ ability to access food, developed by the FAO with the Voices of the Hungry project to estimate the proportion of individuals or households experiencing difficulties to obtain enough food, at different levels of severity. Used in combination with other measures, the FIES has the potential to contribute to a more comprehensive understanding of the causes and consequences of food insecurity and to inform more effective policies and interventions. As the FIES is easy for professionals and institutions from any sector to use, its inclusion in diverse types of surveys can help strengthen links between different sectoral perspectives, for example, between agriculture, social protection, health and nutrition.

In this regard, I am delighted to inform you, dear readers, that in March 2016, the UN Statistical Commission endorsed the proposal made by the Inter Agency and Expert Group on the Sustainable Development Goals (IAEG-SDG) to use the prevalence of moderate or severe food insecurity in the population, based on the FIES, as an indicator for Target 2.1 of the 2030 Agenda for Sustainable Development as well as the traditional PoU. When designed properly, the FIES-based indicators will serve to track global, regional, national and subnational changes in food insecurity, providing information for policy-making at several levels.

For over 70 years, FAO has been supporting Member Nations in their efforts to improve food security and nutrition. FAO’s assistance is tailored to country needs, focused on building capacities, sharing knowledge, facilitating policy dialogue and innovative partnerships, and developing and implementing agreements, codes of conduct and technical standards.

It is my hope that the information provided in the Regional Overview of Food Security and Nutrition in Africa, 2016 will be of use to policy-makers, researchers and others concerned with the eradication of hunger and poverty through improving agriculture, food security and nutrition in sub-Saharan Africa.

Bukar Tijani

Assistant Director-General and Regional Representative for Africa

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Many thanks to Koffi Amegbeto who coordinated the preparation of the document and led the production of Part One and Part Two under close supervision and guidance of Bukar Tijani, Assistant Director-General and Regional Representative for Africa, assisted by Abebe Haile-Gabriel, Deputy Regional Representative for Africa and FAO Representative to Ghana, and by Beth Crawford, Regional Strategic Programme Coordinator, in RAF.

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Acronyms

AfDB	African Development Bank
AGIR	Global Alliance for Resilience
CAADP	Comprehensive Africa Agriculture Development Programme
COMESA	Common Market for Eastern and Southern Africa
DES	Dietary Energy Supply
EAC	Eastern Africa Community
ECCAS	Economic Community of Central African States
ECOWAP	Agricultural Policy of ECOWAS
ECOWAS	Economic Community of West African States
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAPDA	Food and Agriculture Policy Decision Analysis
FIES	Food Insecurity Experience Scale
GDP	Gross Domestic Product
GHA	Greater Horn of Africa
ICN2	Second International Conference on Nutrition
IDDRSI	IGAD Drought Disaster Resilience and Sustainability Initiative
IDP	Internally Displaced People
IFPRI	International Food Policy Research Institute
IGAD	Intergovernmental Authority on Development
IOC	Indian Ocean Commission
LEAP	Livelihood Empowerment Against Poverty
MDG	Millennium Development Goal
NEPAD	New Partnership for Africa's Development
REC	Regional Economic Community
SADC	Southern Africa Development Community
SDG	Sustainable Development Goal
SSA	Sub-Saharan Africa
UNECA	United Nations Economic Commission for Africa
UNHCR	Office of the United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Emergency Fund
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WB	World Bank
WFP	World Food Programme
WHA	World Health Assembly

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Appendix

Table 1: Average prevalence of severe food insecurity based on the FIES in 2014/15



Photo Credit: © FAO/Simon Maina

The prevalence of stunting in sub-Saharan Africa has reduced by only 7.2 percent from 1985 to 2016, and one in three children under the age of five is stunted. Eastern and western Africa host the highest proportions, 44 percent and 36 percent respectively, while the lowest prevalence (3 percent) is observed in southern Africa.

Part One – Food insecurity and the triple burden of malnutrition: prevalence and trends in sub-Saharan Africa

Food security and nutrition is at the heart of Africa's development agenda with greater commitment to ending hunger, achieving food security and advancing optimal nutrition for all Africans. The Malabo Commitment to ending hunger, reducing stunting to below 10 percent and underweight to below 5 percent by 2025 is driving African countries to do business differently by engaging in multisectoral processes and evidence-based decision making. This chapter highlights the prevalence of severe food insecurity in the region, and examines three dimensions of food security, namely, availability, access and utilization.

1.1 Prevalence of severe food insecurity based on FIES

On 25 September 2015, countries adopted a set of goals to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda dubbed "the Sustainable Development Goals" (SDGs) replacing the Millennium Development Goals (MDGs) which were adopted in 2000 and ended in 2015. The SDGs consist of 17 goals and 169 targets. The SDG1 and SDG2 address the interrelated issues of "ending poverty in all its forms everywhere" and "ending hunger, achieve food security and improved nutrition and promote sustainable agriculture" respectively by 2030. Target 2.1 of SDG2 focuses specifically on access to food: "By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round."

Specifically in sub-Saharan Africa, the African Union (AU)'s Agenda 2063 sets both the vision and the action plan for the development of the continent over the next 50 years. Adopted in June 2014, the first ten-year implementation plan (2015–2025) covers seven priority areas aligned with the SDGs. These priorities are defined in the 2014 Malabo Declaration on "Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods". Accordingly, African Heads of State and Government pledged, among other goals, to end hunger by 2025, focusing on the triple targets of increased production, reduced losses and waste and improved nutrition.

For the purpose of global hunger monitoring, two indicators have been recommended: the prevalence of undernourishment,

and the prevalence of moderate or severe food insecurity in the population. At the same time, countries are encouraged to identify additional indicators when necessary to adequately account for all aspects of the 2025 target.

The prevalence of moderate or severe food insecurity is measured based on the Food Insecurity Experience Scale (FIES). It provides estimates of the proportion of individuals or households experiencing difficulties in obtaining enough food, at different levels of severity, based on data collected through direct interviews. Prevalence rates can be computed for food insecurity at moderate or severe levels, and at severe levels only, implying distinctively different consequences in terms of welfare for the affected population.

The FIES generates estimates of food insecurity at the individual level, based on analysis of self-reported occurrence of experiences during a period of 12 months. The most severe levels are typically associated with the possibility of being hungry but unable to eat, or going for an entire day without eating for lack of money or other resources, and therefore can be expected to be associated with undernourishment. The main advantage of FIES is that it can be implemented easily and at low cost, and when applied in large-scale surveys designed to be representative of subnational levels, it can provide actionable information that policy-makers can use to identify vulnerable population groups and guide policy interventions at these levels. The next section examines the dimensions of food security: availability, access and utilization.

The FIES Survey Module was applied in representative samples of the national populations in over 145 countries in 2014 and 2015 to produce national and regional estimates of the prevalence of food insecurity that are calibrated to a global reference standard and therefore, comparable across countries. Table 1 in the Appendix presents estimates of severe food insecurity rates prevailing globally and in each of the main regions and subregions of the world in 2014/15. It focuses on one of the thresholds used for classification that identifies levels of "severe" food insecurity. This indicator expresses the situation of an individual who experienced "hunger" in the sense that, she or he was "hungry but did not eat and/or went without eating for a whole day because there was not enough money or other resources for food", at least once during the 12-month period preceding the survey.

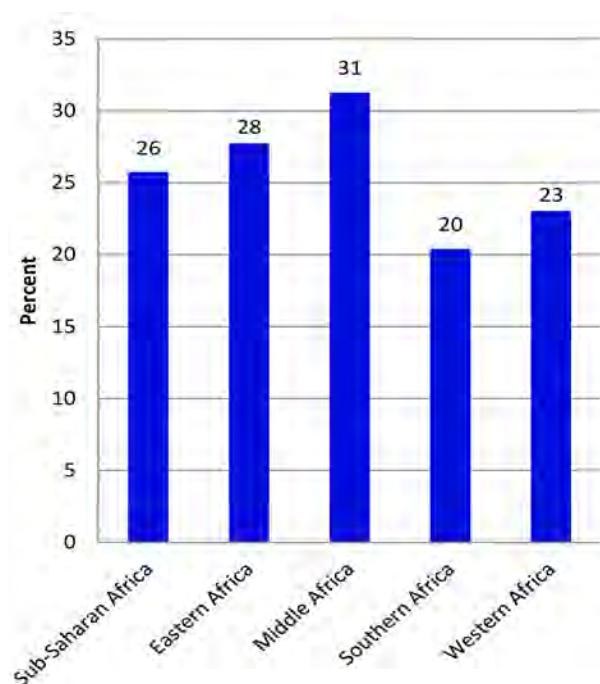
According to the FIES estimates, approximately 7.5 percent of the world population aged 15 years or more, nearly

¹FIES is a new metric for individuals' or households' ability to access food based on direct responses to eight questions in the Survey Module. For more information, see <http://www.fao.org/in-action/voices-of-the-hungry>

406 million people, experienced severe food insecurity in 2014/15. In sub-Saharan Africa, about 26 percent of this age group, representing 153 million people, suffered from severe food insecurity in 2014/15. This rate is the highest prevalence of severe food insecurity in the world.

The lowest prevalence in sub-Saharan Africa was estimated for southern Africa (20 percent) and western Africa (23 percent). Estimates for middle Africa (31 percent) and eastern Africa (28 percent) are relatively higher than the regional average (Figure 1). The prevalence of severe food insecurity in middle Africa and eastern Africa corresponds to an estimated 26 million and 62 million individuals respectively, aged 15 years or more. Improving hunger and nutrition status in these two subregions has been hindered by recurrent political instability, civil unrest and climatic hardships.

Figure 1: Prevalence of severe food insecurity across subregions in SSA



Source: FAO (Feb. 2016) Source: FAO, Voices of the Hungry Project, 2016.

The situation has been particularly dire in the Central African Republic, and in the Lake Chad Basin, affecting Cameroun, Chad, Niger and Nigeria. Similarly, several manifestations of climate change (drought, floods and elevated temperatures) negatively affected all sectors of agricultural production in

eastern Africa, particularly the Horn of Africa, and rendered populations highly vulnerable to food insecurity and malnutrition.

The above estimates of the prevalence of food insecurity and the projected numbers of individuals are not directly comparable to the Prevalence of Undernourishment (PoU) estimates published by FAO for more than 20 years as an official indicator for monitoring the MDGs. PoU is an estimate of the proportion of population with possibly inadequate dietary energy, derived from information at the national level on food availability, food consumption and demographic structure. On the contrary, FIES provides estimates of the proportion of individuals or households experiencing difficulties in obtaining enough food.

In general, the PoU and the estimated prevalence of experienced food insecurity based on the FIES, particularly at severe levels, would be expected to show similar trends. Nevertheless, the total number of people having experienced any form of food insecurity in any population is expected to be greater than the number of those who are estimated to be undernourished (PoU). In fact, people may be in a situation of food insecurity and still be able to meet their dietary energy needs, for example, by consuming less expensive, low-quality, energy-dense foods, or by cutting back on other basic needs, with potentially negative consequences for their health and general well-being. The two indicators are though strongly correlated.

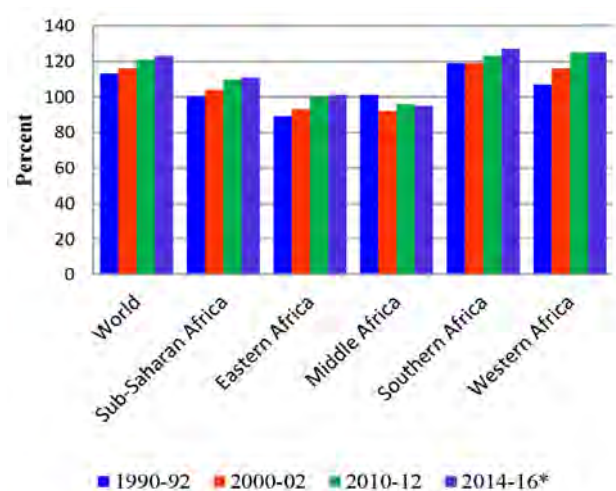
1.2 Food availability

Food availability, defined as the ability to have sufficient quantities of food on a consistent basis, is fundamental to the achievement of food security and improved nutrition. The average Dietary Energy Supply Adequacy (DESA) measures the extent to which, on average, the Dietary Energy Supply (DES) is covering the Dietary Energy Requirement (DER). DESA is one of the key indicators used to determine whether or not undernourishment in a country is primarily due to insufficient food supply.

For sub-Saharan Africa as a whole, the index of dietary energy supply adequacy is 111 over the period 2014–2016, meaning that the dietary requirement is covered through supply with an excess of 11 percent for the last 3 years. Although the DESA for sub-Saharan Africa is lower than the world average index of 123 and other regions (122 for Asia, 129 for Latin America and the Caribbean), considered in isolation, this indicator reflects sufficient availability of food that effectively covers energy consumption needs.

Although such improvement in food availability is recorded for the region, there are variations across subregions and countries. Eastern Africa has an index of 101 points while middle Africa has 95, and western Africa and southern Africa have dietary energy adequacy indices of 125 and 127 respectively, which are similar to the world average (Figure 2).

Figure 2: Average dietary energy supply adequacy



Source: FAO: Food Security Indicators, 2016.

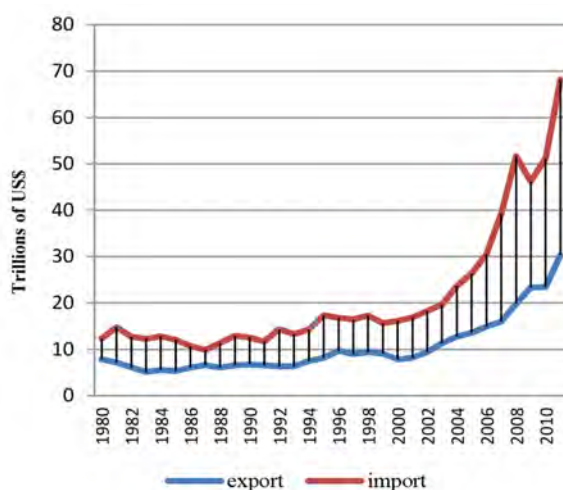
Food production had increased slightly in sub-Saharan Africa for over three decades but has remained stagnant for the last 5 years. Agricultural productivity remains very low in the region, particularly for cereals at below 1500 kg per hectare. Therefore, food imports contribute largely to improved food availability in the region. Many sub-Saharan African countries are potential food baskets. However, recent trends show that many countries in the region are increasingly becoming net food importers.

Since 1980, sub-Saharan Africa's food import has grown consistently faster than export and reached a record high for the first time of around US\$50 billion in 2008, at the height of the global economic crises, representing a deficit of about US\$32 billion, according to FAO data (Figure 3). The region has been relying on imports to fill 15 to 20 percent of cereal availability. Persistent food import dependency is a serious problem for many African countries, especially when high and rising food import bills take money away

from other important development agendas without resolving food insecurity. The problem is even compounded for countries where exports rely mainly on agriculture while the revenues from traditional exports such as cocoa, coffee and spices are less certain and at the mercy of volatile international market prices and unfair trade practices by Africa's principal trading partners.

The regional import dependency trend is also observed at the subregional level, with the exception of middle Africa where the dependence on cereal imports has been the highest and fluctuated between 28.4 and 34.5 percent during these years. Only southern Africa's reliance on cereal imports declined considerably by half, between 1990–1992 and 2009–2011, implying an effective substitution of imports with local production.

Figure 3: Food trade in SSA



Source: FAO

Similarly, several countries remain highly dependent on food importation to ensure adequate food supply. Among these countries, Botswana, Cabo Verde and Mauritius relied on more than 80 percent of imports to supplement their cereal requirements. Cabo Verde and Mauritius are facing the challenges of climate change as one of the most serious threat. Congo, Djibouti, Eritrea and Somalia are about 50.7 to 100 percent cereal import dependent. Zimbabwe, which was a net exporter from 1993–95 to 1998–2000, has become a net importer since 1999–2001, while Zambia has become a net exporter since 2006–2008.

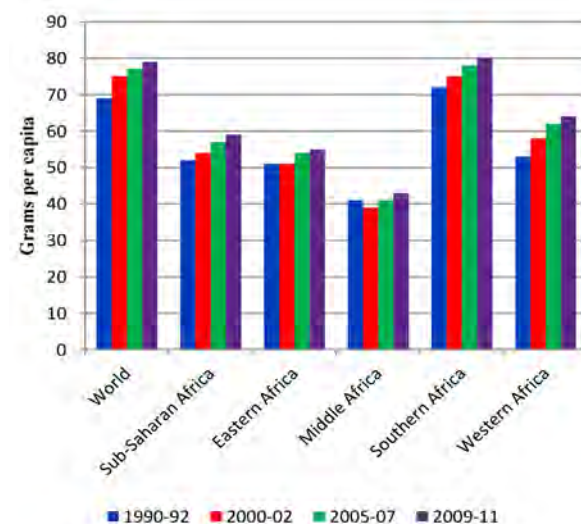
With the declining export commodity prices, revenue to pay for food imports is also becoming a major challenge for many countries, which has implications for national food security. In 2011–13, for instance, the value of food imports over total merchandise exports in Cabo Verde, Comoros, Djibouti, Eritrea, Gambia, Sao Tome and Principe and Somalia ranged between 125 percent and 728 percent. On the contrary, in countries like Botswana, Equatorial Guinea, Nigeria, South Africa and Swaziland, the value of food imports over their merchandise exports was less than 10 percent in 2011–13².

On a more positive note, due to the impetus provided by the NEPAD/CAADP, it is now widely agreed that enhancing intra-African trade through strengthened regional integration arrangements that transcends national and subnational borders holds a key role for overcoming Africa’s food import dependency and food insecurity problems. Under the Malabo Declaration, a strong recommitment to boost intra-African trade in agricultural commodities and services was crafted to: a) triple the current level of intratrade by 2025; and b) to fast-track the establishment of Continental Free Trade Area (CFTA) by 2017 and transition to a continental Common External Tariff (CET) scheme.

Starchy foods such as cereals, roots and tubers are the major sources of dietary energy supply while the share of protein of animal origin in diets remains insignificant in the region, despite the fact that the region is gradually shifting from plant-based towards animal-based protein sources. In contrast to global figures where the share of starchy food has been declining since the early 1900s and represents half of the energy supply today, in sub-Saharan Africa energy supply from cereals, roots and tubers is still about two-third of the total supply. The relative importance of these crops cuts across all subregions, except in southern Africa where starchy foods represent about 55 percent of total energy supplies.

The average protein supply continuously increased between 1990–1992 and 2009–2011 at the global level and in each of the world regions. The increase in sub-Saharan Africa was relatively modest (14 percent) compared to other developing regions such as Asia (25 percent) and Latin America and the Caribbean (20 percent). During the same period, average protein supply increased in sub-Saharan Africa from 52 g to 59 g per capita per day. Southern Africa and western Africa continued to perform better in protein supply than the other subregions. In western Africa, protein supply exceeded the region’s average with 64 g per capita per day in 2009–2011 (Figure 4).

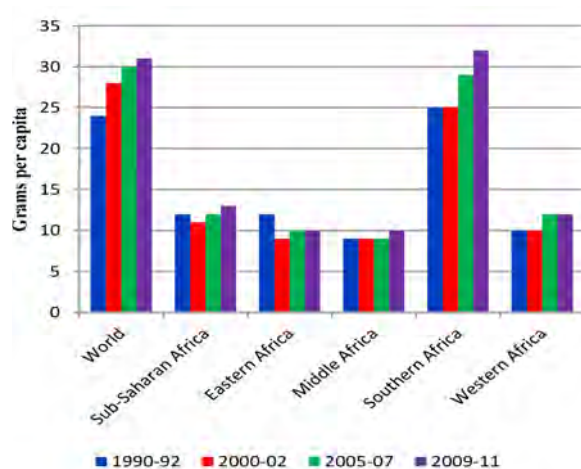
Figure 4: Average protein supply



Source: FAO: Food Security Indicators, 2016

In addition, the supply of protein from animal sources remained at the very low level of 13 g per capita per day in the region compared to the average world supply of 31 g in 2009–2011. With a supply level of 32 g per capita per day, southern Africa is the only subregion where the average supply of protein of animal origin is higher than the world average (Figure 5).

Figure 5: Average supply of protein of animal origin



Source: FAO: Food Security Indicators, 2016

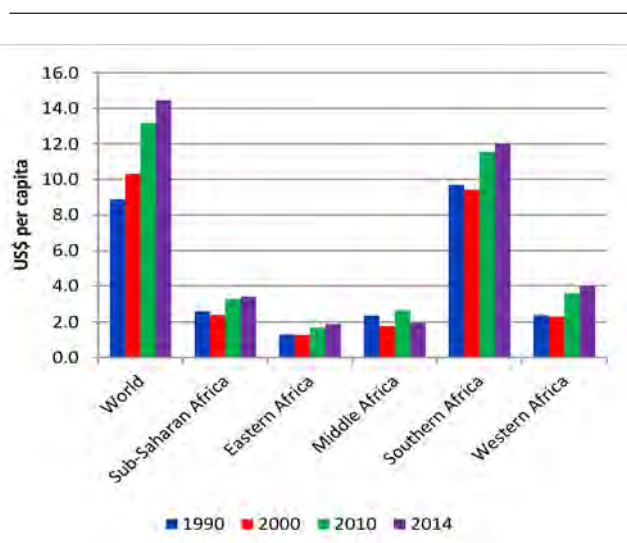
²FAO: Food Security Indicators 2016.

1.3 Food accessibility

Food accessibility, the capacity to have sufficient resources — physical and economic — to obtain appropriate foods for a nutritious diet, is another determinant of food security. The average income levels measured by the size of the Gross Domestic Product (GDP) per capita provides an indication of the likelihood of economic access to food markets by households, all other things being equal. Similarly, a good road network is essential for physical access to food markets. Moreover, food price levels, especially if they are high and volatile, can make food out of reach of vulnerable households.

Compared to other regions, the average per capita income in sub-Saharan Africa (US\$3 400 in 2014) is three times lower than those in Asia, Latin America and the Caribbean, and far below the world average of US\$14 500. Within the sub-Saharan African region, the average income levels are higher in western Africa, which witnessed a 68 percent increase between 1990 and 2014, surpassing the global jump of 63 percent and the 30 percent increase recorded for sub-Saharan Africa for the same period. On the other hand, middle Africa's per capita GDP declined by 17 percent (Figure 6). In other words, the economic access to food markets in middle Africa has deteriorated by almost a fifth during the period. GDP per capita is less than US\$1000 International Purchasing Equivalent in several countries: Burundi, Central Africa Republic, Democratic Republic of the Congo, Liberia, Malawi and Niger, which could limit food accessibility.

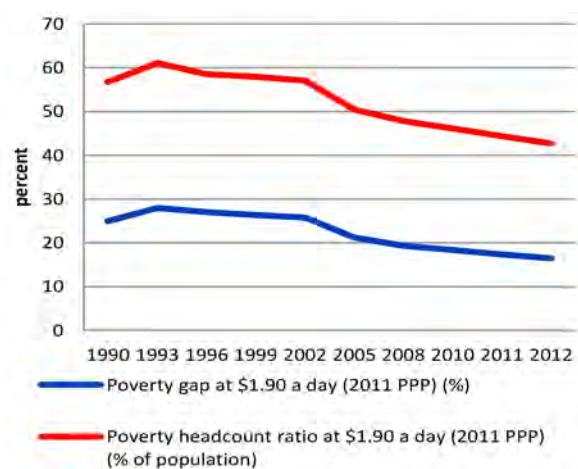
Figure 6: GDP per capita (in thousand US\$)



Source: FAO: Food Security Indicators, 2016

Poverty levels have declined in sub-Saharan Africa but remain higher than the world average, exacerbating food accessibility. The proportion of persons living with less than US\$1.9 a day in sub-Saharan Africa declined by 16 percentage points, from 58 percent in 1990 to 42 percent in 2012. Over the same period, the poverty gap at US\$1.9 a day (PPP 2011) reduced by 8 percent, from 25 percent in 1990 to 17 percent in 2012 (Figure 7).

Figure 7: Poverty rates in SSA

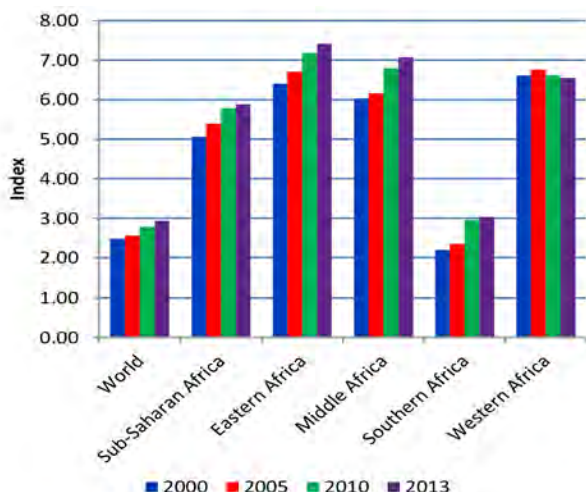


Source: The World Bank, 2016.

The Domestic food price index³, which measures the relative price of food items in the overall household consumption basket of goods, is relatively higher in sub-Saharan Africa compared to the world average and those of other developing regions. For example in 2013, the domestic food price index in sub-Saharan Africa was 6.0, which means that food prices were approximately six times higher than the price of all other non-food items in the consumption basket. The level was twice the world average and above that of Asia (4) and Latin America and the Caribbean (3). Within sub-Saharan Africa, eastern and middle Africa, with indices of 7 each, have been relatively more exposed to high food prices as opposed to southern Africa with the lowest domestic food price index of 3, and western Africa where the index was slightly above the regional average (Figure 8). As such, food affordability has been more of a challenge in sub-Saharan Africa, and specifically in eastern and middle Africa, compared to the other subregions.

³This index is an indicator of the relative price of food in a country, calculated from the 2011 International Comparison Program data from the World Bank as well as general and food consumer price indices from the International Labour Organization made consistent and available on FAOSTAT.

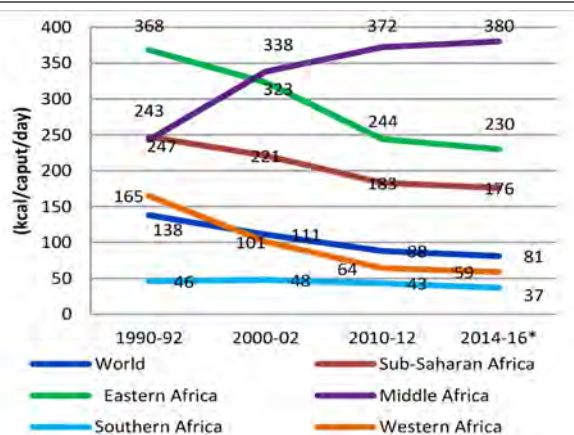
Figure 8: Domestic food price index



Source: FAO: Food Security Indicators, 2016

The depth of food deficit indicates how many calories would be needed to reduce levels of undernourishment, notwithstanding unforeseen shocks. A decrease in this indicator reflects an improvement in undernourishment whereas an increase means the opposite. Compared to other parts of the world, the food deficit is acute in sub-Saharan Africa, where the level is about twice that of Asia and four times that of Latin America and the Caribbean. The situation improved appreciably from 1990–1992 to 2014–2016 in western Africa, eastern Africa, and southern Africa where the depth of food deficit decreased substantially by 64 percent, 37 percent and 20 percent respectively. However, it worsened considerably in middle Africa where it increased by 56 percent over the same period (Figure 9).

Figure 9: Depth of food deficit



Source: FAO: Food Security Indicators, 2016

1.4 Food utilization: the triple burden of malnutrition

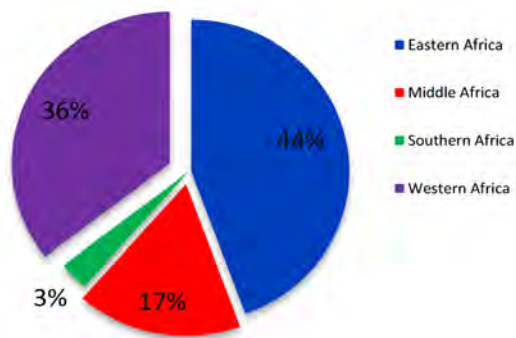
Although some progress has been made in reducing malnutrition, Africa still suffers from a multiple burden of malnutrition as defined by undernutrition, overweight/obesity coupled with rising levels of non-communicable diseases, and micronutrient (vitamins and minerals) deficiencies. Significant proportions of children are underweight, stunted and/or wasted with similarities and differences in the degrees of severity in the various forms of manifestation of undernutrition observed at subregional and national levels.

Iron deficiency-related anaemia remains significantly high even in emerging middle-income countries while deficiencies in other micronutrients such as iodine, vitamin A and zinc persist in all countries of the region. Usually referred to as hidden hunger, micronutrient deficiencies may develop gradually and could be masked until the consequential damages become irreversible. It is highly possible for overweight/obesity to coexist with micronutrient deficiencies, particularly when diets lack essential vitamins and minerals.

1.4.1 Stunting

The prevalence of stunting in sub-Saharan Africa has reduced by only 7.2 percent from 1985 to 2016, and one in three children under the age of five is stunted. Eastern and western Africa host the highest proportions, 44 percent and 36 percent respectively, while the lowest prevalence (3 percent) is observed in southern Africa (Figure 12). Five sub-Saharan African countries — Ghana, Kenya, Liberia, Sierra Leone and Swaziland — are on course to reduce the number of stunted children by 40 percent by the year 2025, as established by the World Health Assembly (WHA). Thirty-four countries are making inadequate progress, while Botswana, Djibouti, Eritrea, Gambia and Senegal are falling behind in reaching stunting targets. The region as a whole is off course to achieve the stunting target set for 2025 even though gradual reductions are being registered in some countries.

Figure 10: Share of stunted children by subregion 2015–16



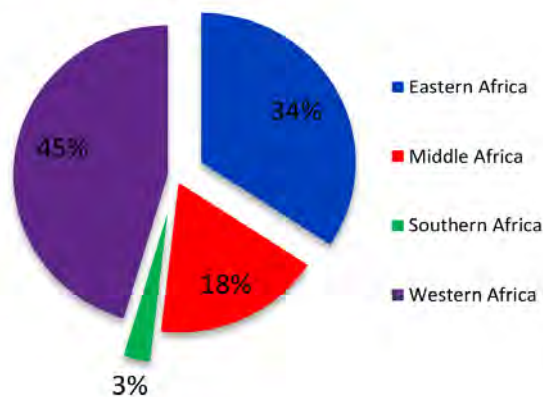
Source: WHO Global Nutrition Report 2015, and IFPRI, 2015.

1.4.2 Wasting and low birth weight (LBW)

In sub-Saharan Africa, wasting affects some 11 million (about 7 percent) of the 154 million children under five years, of which about 3.6 million suffer from severe wasting. The region accounts for 23 percent of the global wasting burden. Wasting prevalence is the highest in western Africa (9 percent), and lowest in southern Africa (5 percent). However, of all children in sub-Saharan Africa affected by wasting, western and eastern Africa bear the greatest burden of 45 percent and 34 percent respectively (Figure 11).

Slight reductions in wasting trends are being observed in three sub-Saharan African subregions: middle, southern and western Africa, but not in eastern Africa. The region as a whole is not on course towards achieving the wasting target of less than 5 percent by 2025; however, 14 countries are on course to achieve this target. Eastern Africa is making the most progress, having seven countries (Kenya, Malawi, Rwanda, Seychelles, Tanzania, Uganda and Zimbabwe) on course. Lesotho, South Africa and Swaziland are the three southern Africa countries on course to achieve wasting targets, while two countries in middle Africa (Equatorial Guinea and Gabon) and two in western Africa (Benin and Ghana) appear to be on course for the WHA wasting target.

Figure 11: Share of wasted children by subregion in 2015–16



Source: WHO Global Nutrition Report 2015, and IFPRI, 2015.

About 14 percent of children in sub-Saharan Africa are born with LBW (birth weight less than 2 500 g), which is slightly lower than the global baseline prevalence of 15 percent in 2012. The average for western Africa is 15 percent, followed by eastern and middle Africa with 13 percent, and the lowest in southern Africa with 12 percent. All subregions are not on track to achieve the 30 percent reduction target in low birth weight by 2025.

1.4.3 Trends in overweight /obesity

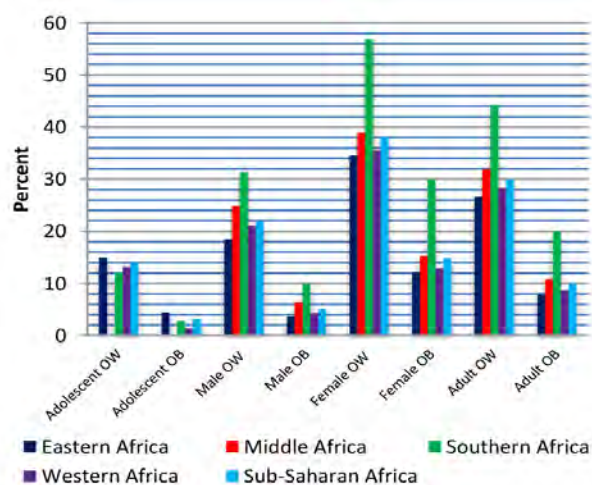
In sub-Saharan Africa, close to 5 million children under the age of five are overweight. This represents 5 percent of the under-five population in the region, and 16 percent of the 30.5 million overweight children in the world. In absolute terms, the rates of overweight children in sub-Saharan Africa are highest in eastern Africa, with about 2.6 million children, representing more than 50 percent of the overweight burden in SSA. This is followed by western Africa with about 1.3 million children, representing nearly a third of the region's overweight burden. Western Africa has showed a steady decrease in overweight levels, while the phenomenon is increasing in middle Africa and there is no clear systematic evolution in eastern and southern Africa.

Compared to other nutrition indicators, the progress in meeting the WHA target of no increase in childhood overweight is the most encouraging in the region. Close to half of the countries in sub-Saharan Africa are on track to achieve this target. In eastern Africa, Kenya, Malawi, Somalia, South

Sudan, Tanzania, Uganda, Zambia and Zimbabwe, or 44 percent of the number of countries in the subregion, are on track to achieve the under-five overweight target for 2025. For middle Africa, more than half of the countries in the subregion – Cameroun, Central African Republic, Chad, Congo and Democratic Republic of the Congo – are on course. For western Africa, Benin, Côte d’Ivoire, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania and Nigeria, representing half of the countries in the subregion, are also on track. In southern Africa, only Namibia is expected to meet childhood overweight targets, reflecting uneven progress among the subregions.

About 14 percent of adolescents in sub-Saharan Africa are overweight and 3.2 percent are obese. The 15 percent prevalence of the overweight and 4.5 percent of obesity in adolescents in eastern Africa are above the regional average, while those in southern Africa (12 percent and 3 percent, respectively) and in western Africa (13 percent and 1 percent, respectively) are both below the regional trend (Figure 12).

Figure 12: Prevalence of overweight (OW) and obesity (OB) among adolescents and adults by subregion



Source: WHO Global Nutrition Report Dataset, 2015, and IFPRI, 2015.

The prevalence of overweight and obesity in the adult population are above that of the adolescents in sub-Saharan Africa. Two in ten male adults and four in ten female adults in the region are overweight. One in 20 males and 3 in 10 females are obese. Altogether, 40 percent (30 percent overweight and 10 percent obesity) of adult populations have excess body fat or body mass index (BMI) higher than 25 kg/m².

Subregional disparities exist in the prevalence of adult overweight and obesity. Almost 70 percent of adults in southern Africa are either overweight or obese, compared with less than 36 percent in western Africa, 41 percent in middle Africa and about 34 percent for eastern Africa. The prevalence of overweight and obesity varies greatly between males and females across all the subregions. For example, every four in ten males in southern Africa are overweight or obese compared with almost nine out of ten females.

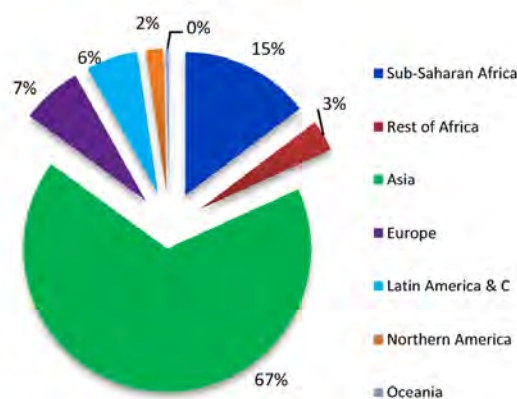
1.4.4 Micronutrient deficiencies

Concerning micronutrient deficiencies, iron deficiency in women of reproductive age (WRA), commonly known as anaemia, and vitamin A deficiency in pre-school aged children are a particular public health concern.

a) Anaemia

Globally, some 528.5 million women between the age of 15 and 49 years are anaemic. In sub-Saharan Africa, anaemia affects 39 percent (more than 76.7 million) of WRA, which represents about 15 percent of the global burden (Figure 13).

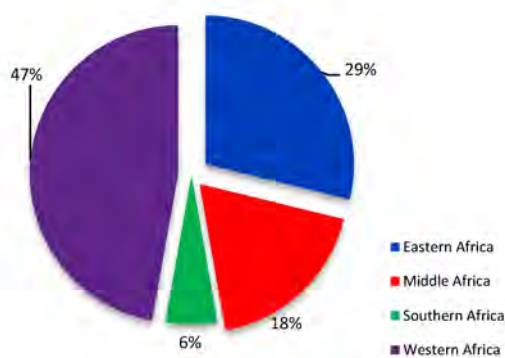
Figure 13: Prevalence of anaemia in WRA in the world



Source: WHO Global Nutrition Report Dataset 2015, and IFPRI, 2015.

Western Africa has almost half the number of anaemic women (47 percent or 36.2 million), followed by eastern Africa (about 22 million), with southern Africa recording the least of approximately 4.3 million. Notably, the proportion of anaemic women in middle Africa is 46 percent representing about 14 million women. In eastern Africa, Burundi and Kenya are the only two of the 48 countries in sub-Saharan Africa on course to achieve 50 percent reduction in anaemia in women of reproductive age by 2025.

Figure 14: Prevalence of anaemia across the subregions in SSA

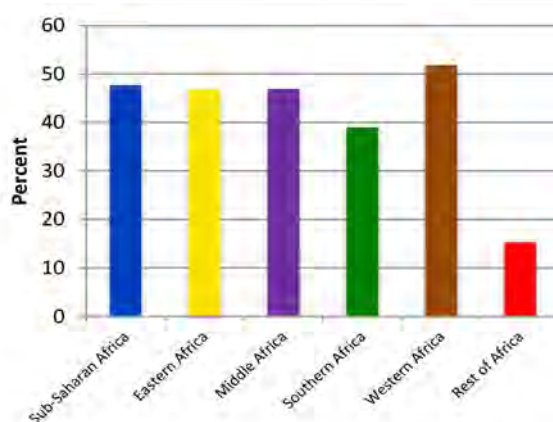


Source: WHO Global Nutrition Report Dataset 2015, and IFPRI, 2015.

b) Vitamin A deficiency

The global prevalence of vitamin A deficiency in children of pre-school age is 24 percent. In sub-Saharan Africa, the prevalence is twice the global average (Figure 15). At least one in every two western African preschool-aged children is vitamin A deficient. Eastern and middle Africa both have prevalence rates close to 47 percent, while the rate in southern Africa is about 39 percent. Pre-school vitamin A deficiency prevalence in sub-Saharan Africa is about thrice or more the level in other regions.

Figure 15: Prevalence of vitamin A deficiency in pre-school children



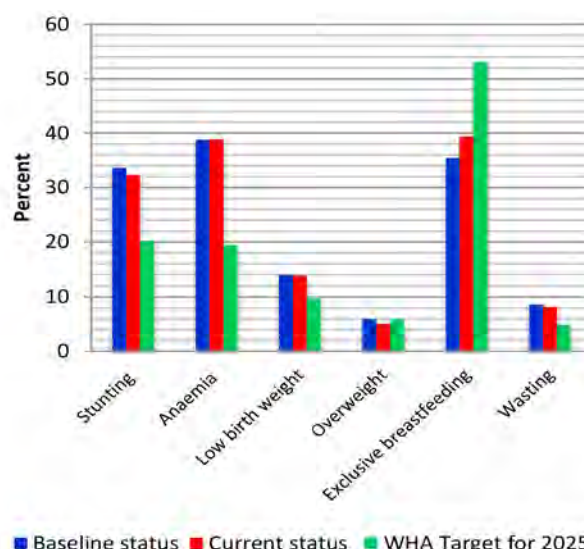
Source: WHO Global Nutrition Report Dataset 2015, and IFPRI, 2015.

b) Progress towards WHA targets

According to the World Health Organization (WHO) 2015 Global Nutrition Report estimates, sub-Saharan Africa is on course to achieve two out of the six nutrition targets set by WHA for 2025, namely overweight and exclusive breastfeeding. However, the region is not on course to achieve the targets for stunting, wasting, anaemia in WRA and LBW. Kenya is on course to achieve the target related to stunting, wasting, and under-five years overweight and anaemia, while Ghana is on course to achieve the target for stunting, wasting, overweight and exclusive breastfeeding. The countries on course to achieve two targets are Benin, Liberia, Malawi, Swaziland, Tanzania, Uganda and Zimbabwe. Burundi, Cameroun, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Guinea, Guinea Bissau, Lesotho, Mauritius, Namibia, Nigeria, Rwanda, Sierra Leone, Somalia, South Africa, South Sudan and Zambia are on course for one target. About 15 countries in sub-Saharan Africa are either not on course for any of the targets or have no data to assess their progress. Thus, the overall picture for the region and subregions is below expectations.

A comparison of the baseline status of the six nutrition indicators targeted by the WHA, the current status and the expected status by 2025 (Figure 16) indicates that, for the targets to be achieved, the countries in the region must strengthen their commitments and resolutions, and translate these into real actions. This will put them on track towards meeting the targets for the four indicators where currently significant progress seems to be lacking.

Figure 16: Comparing baseline, the current and targeted prevalence of WHA nutrition indicators



Source: WHO Global Nutrition Report Dataset 2015, and IFPRI, 2015.



Photo Credit: ©FAO/Olivier Asselin

A woman pouring corn into an FAO-sponsored motorized mill during a demonstration. FAO has provided rural communities with mills that are managed by committees of community members.

Part Two – Policies and programmes to support food security and nutrition

For the last 15 years, the global community closely monitored trends toward achieving the targets set under the MDGs, and there is no doubt that many sub-Saharan African countries have made some progress. However, in comparison to other regions, sub-Saharan Africa faces a significant challenge in achieving food security and nutrition within the framework of the SDGs. The most recent estimates of food insecurity reveal that approximately 218 million people were undernourished in sub-Saharan Africa;⁴ it means that about one out of four persons in the region did not have adequate dietary energy supply. Estimates also show that, on average, one out of four individuals above 15 years of age in the region experienced severe food insecurity in 2014–15 based on self-reported individual experiences. Undoubtedly, countries in the region need to exert sustained efforts towards reaching the zero hunger target set in the African Union (AU) Malabo Declaration for 2025 and in line with the SDGs for 2030.

This part of the regional overview examines some of the regional, subregional and country efforts and experiences in improving the policy environment to end hunger, achieve food security and improved nutrition, as well as in promoting sustainable agriculture in the region. An attempt is made to provide a general update on food security and nutrition policy commitments across key sectors and subsectors relating to food and agriculture. In view of the growing interest and appreciation of social protection⁵ as a tool for addressing the challenges of poverty, food insecurity and malnutrition, this part highlights how it is being applied within the national context. In the following sections, the food security and nutrition policies are presented sequentially at the regional and subregional, as well as at country level.

2.1 Regional and subregional food security and nutrition policies and programmes

a) The AU Agenda 2063 for long-term development

The AU Agenda 2063 sets the continent's development vision over the next 50 years towards a prosperous Africa based on inclusive growth and sustainable development, among other things. For agriculture and food security, this paved the way for the elaboration of the first ten-year

implementation plan, covering 2015–2025, which culminated in the adoption of the Malabo Declaration on “Accelerated Agricultural Growth and Transformation for shared Prosperity and Improved Livelihoods” in June 2014 in Malabo, Equatorial Guinea. Under this Declaration, African Heads of State and Government pledged to end hunger by the year 2025 by at least doubling current agricultural productivity levels, reducing postharvest losses and waste by at least half the current level, and reducing stunting to 10 percent and underweight to 5 percent. They have also committed themselves to mutual accountability through institutionalizing a biennial monitoring, review and reporting of progress.

In June 2015, the AU adopted the Declaration on Women Empowerment and Development towards the Africa's 2063 Agenda. The Declaration prioritizes the financial inclusion of women in agribusiness and enhancing women's rights to productive assets. The AU's campaign to abolish the hand-held hoe launched in the same year is targeted to reduce women's farm labour burden by widening their access to modern technologies and agroprocessing.

While progress is at varying levels, engagements at regional, subregional and national levels have taken place towards domesticating and operationalizing the Malabo Commitments using the Comprehensive Africa Agriculture Development Programme (CAADP) results framework. Emphasis is rightly placed on the importance of country ownership and leadership in realizing the goals, and that of partnerships to support the efforts in a coordinated and harmonized manner. An important aspect of these commitments is its consistency with the SDGs, which makes it easier for tracking progress and reporting using common and agreed-upon indicators.

b) African Regional Nutrition Strategy

On 13 July 2015, the African Union Commission (AUC) launched the African Regional Nutrition Strategy (ARNS) for 2016–2025, a continental roadmap to enhance and promote nutrition. The strategy incorporates emerging nutrition concerns and sets clear targets that include the attainment of 40 percent reduction in stunting, 50 percent reduction of anaemia in WRA and 5 percent reduction in wasting among children under 5 years of age by 2025. Using the “Africa Day for Food and Nutrition Security,” celebrated every 30 October, as an important platform, the AUC appointed an African Nutrition Champion for a two-year term, to lead continental nutrition advocacy activities.

⁴FAO, 2015. Regional Overview of Food Insecurity in Africa.

⁵AUC-Ouagadougou Declaration on Employment and Poverty Alleviation in Africa, 2004; Livingstone Call for Action, 2006; AUC Social Policy Framework for Africa, 2009; AUC/NEPAD Malabo, 2014; AUC Declaration on Social Protection and Inclusive Development, 2015

c) The 'Feed Africa' strategy of the African Development Bank (AfDB)

An important recent development is the adoption in 2016 by the AfDB of the 'Feed Africa' strategy to enhance a competitive and inclusive agribusiness sector that creates wealth, improves lives and protects the environment. The strategy, which is one of the high five priorities of the AfDB, aims to end hunger and rural poverty in Africa in the next decade by focusing on transformation, scaling up agriculture as a business through value addition (led by the private sector and enabled by the public sector) and using innovative financing mechanisms.

The strategy would involve increased productivity; value addition; investment in infrastructure; creating an enabling agribusiness environment; catalysing capital flows; and ensuring inclusivity, sustainability and effective nutrition – all in a coordinated manner. It aims to drive transformation through 15 priority commodity value chains in given agro-ecological zones specifically to achieve self-sufficiency in key commodities such as rice, wheat, fish, palm oil, horticulture and cassava; move up the value chain in key export-oriented commodities like cocoa, coffee, cotton and cashew; create a food-secure Sahel in sorghum, millet and livestock; and realize the potential of the Guinea Savannah in maize, soybean and livestock. The AfDB pledged to invest US\$24 billion over the next ten years and leverage additional investments through other instruments to catalyse investments at scale from the private sector and with co-financing from traditional donors and new players.

d) Tripartite Free Trade Area Agreement

The Common Market for eastern and Southern Africa (COMESA), Eastern African Community (EAC) and Southern Africa Development Community (SADC) signed in June 2015 a Tripartite Free Trade Area (TFTA) agreement with the objective of benefitting from liberalized intraregional trade and boosting the flow of goods and services. The trade area consists of 26 member countries of the three economic blocs that account for a combined GDP of about \$1.3 trillion and a population of 565 million. The three RECs agreed to merge into a common market and eliminate tariff lines and trade barriers.⁶ The agreement was supposed to come into effect on 1 January 2016. However, it is still pending ratification by national parliaments as technical negotiations are still ongoing. Furthermore, building on the Tripartite model, the AU is expected to conclude negotiations of an Africa-wide Continental Free Trade Area (CFTA) by the end of 2017, which

is believed to foster trade liberalization across the RECs. The conclusion of this landmark trade agreement will facilitate the formation of customs unions and catalyse the goal of tripling the intra-African trade in agricultural goods and services set by the 2014 Malabo Declaration.

e) Policies on agricultural investment plans in middle Africa

Political instability and other forms of violence and civil unrests have exacted a toll on the agricultural fortunes of countries in the middle Africa subregion for over two decades. To help alleviate hunger, ensure access of all to safe, nutritious and sufficient food, each country in the subregion has prepared National Agriculture and Food Security Investment Plans (NAFSIPs) under the coordination of the Economic Community of Central African States (ECCAS) and the New Partnership for Africa's Development (NEPAD) within the CAADP framework. The focus has been on investing adequately in the agriculture sector and increasing agricultural production, taking into account the commitment of civil society and reform of the sector. The NAFSIPs also determine the concrete actions required to ensure nutrition security through good agricultural practices. In this context, NEPAD has launched an initiative to enhance national capacities to resolve nutrition concerns through the NAFSIPs. The ten member countries are in the process of mobilizing financial resources to implement the NAFSIPs with better intrasectoral and intersectoral coordination. In addition, the ECCAS member countries have prepared and validated a Regional Agricultural Investment Plan (RAIP), the Common Agricultural Policy (Politique Agricole Commune), and the Regional Food Security Project for Central Africa (Projet Régional de Sécurité Alimentaire de l'Afrique Centrale) (PRSA/AC).

The RAIP is complementary to the NAFSIPs in the sense that priority regional investments are meant to apply the subsidiarity principle in order to support four critical objectives for the agricultural sector in Central Africa: (i) enhancing agriculture productivity in key value chains (such as cotton, cassava, banana and meat production) with a view to increasing income for rural households and reducing major regional food production deficits; (ii) better natural resource management focusing on sustainability; (iii) promotion of a favourable agricultural policy framework and private business environment for job creation; and (iv) enhancing the overall food balance and nutritional status in middle Africa. Eleven priority regional investment programmes have been outlined in this respect.

⁶<https://www.trademarka.com/news/towards-a-unified-african-market-newly-signed-tripartite-free-trade-area-to-bring-together-eac-comesa-sadc-blocs/>

f) Policies for food security and nutrition in southern Africa

The SADC developed in 2014 a Regional Agricultural Policy (RAP) and the SADC Regional CAADP Compact to address the challenges of low productivity, undernourishment and climate change with the overall objective to promote sustainable agricultural growth and socio-economic development. One of the main objectives of the SADC RAP is to ameliorate private and public sector investment in the agricultural value-chains.

The SADC Regional Agricultural Policy Investment Plan (RAP-IP) was developed in 2015 and is estimated to cost US\$565 million for 5 years (2017–2021). Five programmes are identified: (i) increase agricultural production, productivity and competitiveness; (ii) increase access to markets and trade of agriculture products; (iii) increase investments in and access to finance for agriculture; (iv) reduce social and economic vulnerability in the region; and (v) improve food and nutrition security for the subregion. As part of the food and nutrition security strategy endorsed in August 2014, SADC is developing a results framework that includes implementation, monitoring and evaluation (M&E), and reporting systems. A series of instruments for implementation were also identified, including the establishment of an Agricultural Development Fund (ADF). In practice, the quality of agricultural financing and investment exerts a significant impact on the success of national agricultural policies. For example, the removal of subsidies for production inputs in 2013 by the Government of Zambia has caused important income loss for smallholder farmers.

A major development for SADC in 2015 was the revision of the Regional Indicative Strategic Development Plan (RISDP) for the period 2015–2020, which was approved by the SADC Council in April 2015. The revised RISDP aims at realigning the region's development plans with emerging global dynamics while refocusing on a few critical and realistic interventions. The priority areas retained include: (i) regional infrastructure and services development for regional integration; (ii) food security and joint management of transboundary natural resources; (iii) social and human development. While efforts have been made in mainstreaming gender in policies, the revised blueprint recognizes that there is still much to be done to see these policies translated into action.

g) The SADC industrialisation strategy and roadmap (2015-2063)

This strategy and roadmap was approved by the SADC Council in April 2015. The primary orientation of the strategy is the

necessity for the structural transformation of the SADC region by way of industrialization, modernisation, upgrading and closer regional integration with a shift from reliance on resources and low cost labour to increased investment and enhanced productivity of both labour and capital. The strategy is anchored on three pillars: (i) industrialization as a champion of economic and technological transformation; (ii) competitiveness as an active process to move from comparative advantage to competitive advantage; and (iii) regional integration and geography as the context for industrial development and economic prosperity. The main objective of the scenarios is to graduate SADC countries from factor-driven to investment-driven and ultimately innovation-based development stage in line with competitiveness. Three cascading growth scenarios from 2015 until 2063 have been developed covering 5 years, 13 years and 30 years, respectively. The strategy highlights the importance of agro-industry and agriculture value chains, as well as the need to ensure environmental sustainability through the green and blue economies.

h) The Regional Food and Nutrition Security Programme of the Indian Ocean Commission (IOC)

The IOC formulated a Regional Food and Nutrition Security Programme (*Programme Régional de Sécurité Alimentaire et Nutritionnelle*) (PRESAN) to improve the production of basic food stuffs to enhance the share of food requirement met from production in Member States including Comoros, Madagascar, Mauritius, Réunion and Seychelles. The Programme is defined around three pillars: (i) production, productivity and competitiveness; (ii) regional markets; and (iii) nutrition security and resilience. Specifically, the Programme will provide incentives to producers, agribusinesses and public institutions to join efforts to ensure quality production mainly in Madagascar, but also in other islands with agro-ecological potential, and export products to other islands, with the priority given to rice, maize, onion, various dry grains, red meat and chicken. The IOC Member States validated the Programme in January 2016 and it was presented during the FAO Regional Conference for Africa (ARC) in April 2016 as a good example to be followed by other countries in the region.

i) Economic Community of West African States (ECOWAS) regional policies and programmes

Ten years after the official launch of the ECOWAS Agricultural Policy (ECOWAP), the ECOWAS Commission and its partners initiated a process in November 2015 to reshape and strengthen the Policy in order to meet new challenges facing the region.

They took stock of achievements, reflected on the underlying trends that are transforming the food systems, and on the prospects for the regional policy over the next ten years.

The revised ECOWAP aims at stimulating increased investment and sustainable inclusive agricultural growth, and guaranteeing food security and food sovereignty by 2025. As such, it focuses on three sectoral priorities: (i) regional integration of production and trade in livestock and livestock products; (ii) adoption of sustainable intensification pathways adapted to the diversity of ecosystems; and (iii) promotion of value chains. It identified a number of strategic products in a framework of better cooperation in research, negotiation, industrialization, alliances structuring and/or interprofessional organizations and market regulation among Member States and stakeholders. In addition, the policy promotes systematic mainstreaming of the gender approach and the establishment of a generation of young trained farmers.

To translate the ECOWAP guidelines for 2025 into operational strategies and programmes in line with the Malabo Declaration and the SDGs, the ECOWAS Commission, Member States and other key partners renewed their commitments in support of the new agenda. In June 2016, ECOWAS subsequently validated a methodology guide in Abidjan for supporting member countries to develop their second generation National Agricultural Investment Plans (NAIPs). ECOWAS has also developed policies that promote the development of livestock/meat and milk value chains and identify priority areas of investment. The aim is to improve nutrition, alleviate poverty and reduce dependency on imports. Notably, ECOWAS is in the process of developing the second generation of NAIPs focusing on agriculture production, value chain development and resilience.⁷

Similarly, the West African Economic and Monetary Union (WAEMU) formulated in March 2015 a Community Development Programme for the Transformation of Agriculture 2016–2025, which aims at eradicating hunger, poverty and malnutrition while promoting sustainable agriculture-led economic growth for the eight union member countries. The objective is to contribute sustainably to meeting the food and nutritional needs of the population, promoting economic and social development of Member States, and reducing poverty. Strategically, and following the recommendations of the Conference of Heads of State and Government of June 2012, the implementation of the Programme is based on nine axes: (i) improving water management; (ii) increase of agro-forestry-pastoral productions; (iii) access to subregional and international markets; (iv) development of regional instruments for food safety

management; (v) improvement of nutritional status; (vi) reform of the institutional framework; (vii) agricultural research and technology transfer; (viii) capacity-building; and (ix) financing of agriculture. The actions needed to realize the implementation of the axes have been formulated for delivery under five operational programmes.

j) The Zero Hunger Initiative for West Africa

This initiative, implemented since 2014, has contributed to increasing awareness and triggered the need to increase the promotion of the Right to Food into concrete actions on the ground through concerted and coordinated investment, promoting nutrition-sensitive and climate-smart agriculture, gender-responsive interventions as well as social protection strategies and programmes. A Zero Hunger Index was developed to serve as a monitoring, advocacy and communication tool for policy makers and other stakeholders.

k) East African Community (EAC) Vision 2050

The 17th EAC Heads of State Summit endorsed and launched in March the EAC Vision 2050. One of the main pillars of the visions is Agriculture, Food Security and Rural Development, aiming at improving agricultural practices, including mechanization, irrigation, improved seeds and use of fertilizers, in order to ensure increased productivity for food security as well as economic prosperity for the population.

Furthermore, a high priority will be given to effective natural resource management with enhanced value addition, combined with human capital development aimed at creating well-educated and healthy people in the region.

2.2 Overview of selected national food security and nutrition policies and programmes

African governments have developed a range of policy responses and programmes towards the achievement of regional food security and nutrition. Efforts have concentrated on boosting food productivity, widening food access and the establishment of commercial agrifood value chains targeting income and employment generation, through putting forward or expanding existing social protection measures. Nevertheless, challenges remain in resolving bottlenecks to policy implementation, enhancing interagency coordination, and accelerating efforts towards resource mobilization.

⁷ECOWAS 2016, Cadre d'Orientation Stratégique Horizon 2025 Document provisoire soumis au Groupe Technique de Suivi ECOWAS, Lomé

2.2.1 Burkina Faso

Over the years, Burkina Faso has adopted an integrated approach by mainstreaming nutrition into agriculture. Specifically, it encouraged cereal production with a focus on rice. Lowland rice production in the humid areas in the southern and southwestern parts of the country has been extended to the semi-arid regions since 2010 through several actions: (i) land owners were asked to transfer their land to the local communities to facilitate its access to all potential producers; (ii) a number of technical studies were completed: hydrology, topographic mapping, soil survey, sociology and environment impact; (iii) land was prepared with levelled and compacted soil constructions protected with stones in order to store water during the heavy rains; and (iv) plots were ploughed, delimited and distributed to vulnerable households with about 0.1 to 0.2 ha per household. Finally, new adapted rice varieties, mostly *Nerica*, were made available to producers in combination with adequate quantities of subsidised quality fertilizer and technical assistance to growers.

a) National Food Security and Nutrition Policy

A National Food Security and Nutrition Policy (*Politique Nationale de Sécurité Alimentaire et de Nutrition* (PNSAN, 2014–2025) was prepared and adopted in 2014. The long-term objective is to promote long-lasting food security and nutrition to the population. Specifically, it seeks to: (i) improve policy and institutional governance; (ii) improve the food security and nutrition information system; (iii) improve financial governance for food security and nutrition; and (iv) develop an agricultural insurance system. Burkina Faso is also part of the ECOWAS Zero Hunger Initiative and aims at a long-term reduction of the food insecurity and malnutrition in the Sahel regions of western Africa. To accelerate the reduction of malnutrition in Burkina Faso, a new rural development strategy and national rural sector programme is to be formulated and adopted in 2016 in the framework of the National Economic and Social Development Plan (PNDES 2016–2020).

b) Local production of enriched baby flour

In order to decrease malnutrition among young children, the Government of Burkina Faso promotes good practices, local production and marketing of iron and vitamins-enriched baby flours. Small production units in various regions have received technical assistance to produce and store the enriched baby flours all year round. Based on a request from the Ministry of Health in 2015, a quality norm was developed and published to support the marketing of these locally produced enriched flours and their use in nutrition programmes.

The Technical Committee of the National Commission for Food Security is now preparing a request to the government to decrease import taxes on vitamins which represent one of the main concerns for local production units.

c) Free health care pilot for most vulnerable groups

Effective from April 2016, free health care measures were put in place for children under 5 years old, pregnant women and elderly indigent people over 65 years of age in an experimental phase in the Central, Hauts-Bassins and Sahel regions of the country. The goal was to reduce the infant mortality rate, which remains high especially in the Sahel, and to achieve the SGDs by 2030. These measures were scaled up nationally in June 2016.

2.2.2 Ghana

Ghana has cut its poverty rate by half between 1991 and 2013, considerably reduced vulnerability and substantially improved non-monetary indicators of living standards, such as health care, education and access to basic services. The prevalence of undernourishment declined from 47.3 percent in 1990–92 to below 5 percent in 2014–16. Ghana is broadly self-sufficient in staple foods, particularly roots and tubers. The growth in the production of staple crops such as rice, maize and millet, and in higher-value vegetables and fruits for domestic and export markets has been encouraging.

Growth in staple food crops was spurred by the introduction of improved varieties, an expanded land area under harvest and an increase in the number of village-based processing plants. A diversified portfolio of new export crops was promoted, which started with pineapples but also includes mangos, nuts and other horticultural products. New export growth has been driven mainly by private investment under conditions characterised by improved infrastructure and business environment, political stability and geographic proximity of the European market. Notwithstanding the notable progress made so far, a number of development challenges remain, including the low growth of the agriculture sector, which employs 45 percent of the labour force, and weak linkages between agriculture and industry. The key drivers can be summarized as follows.

a) Agricultural modernization and transformation

Supporting agrifood production and exports has been the leading policy since 2007, with particular emphasis on agricultural modernization. Various policies and interventions have been implemented, including improving agricultural productivity and exploiting opportunities in the sector for

accelerated job creation; enhancing the competitiveness of the sector and ensuring its integration into the domestic and international markets; reducing risks by promoting the development of irrigation; improving agriculture financing; promoting sustainable environment, land and water management; providing support for selected crops, livestock (particularly poultry), fisheries and aquaculture development; and improving institutional coordination.

In line with the government's objective to develop specialized funding arrangements and to support agricultural development, the Export Development and Agricultural Investment Fund (EDAIF) Act has been amended in 2011 to cover agriculture. Various soil and crop improvement programmes implemented by the government with support from development partners have made a significant contribution to improving soil condition for staple food production. The establishment of a fertilizer production plant in the Western Region improves farmers' access to fertilizer while agriculture mechanization is being accelerated through the establishment of several Agriculture Mechanization and Service Centres (AMSECs) at district levels. The programme has been extended and, as of 2015, 89 AMSECs have been established throughout the country. In addition, machinery hire, purchase and lease schemes were established with backup spare parts for all equipment. The process of modernization of the agriculture sector has been underpinned by the transition of smallholder farmers into commercial farmers.

To address the challenges posed by the reliance on rain-fed agriculture, the Government of Ghana has initiated the rehabilitation of non-functional and abandoned irrigation sites as well as the promotion of water harvesting techniques. Under the Accra Plains Irrigation Project, a total of 11 000 ha of land are being put under irrigation. In addition, on-farm boreholes will be provided to mitigate the risks of irregular and insufficient rainfalls.

b) Social transfer programmes

Ghana has multiple social protection schemes and programmes implemented through several mechanisms. They are complemented by broader programmes that have a social protection dimension. Different mechanisms are in place to deliver benefits to individuals or households, including cash transfers, in-kind benefits concerning health and education, active labour market programmes and subsidies for certain goods and services.

The Livelihood Empowerment Against Poverty (LEAP) programme is a national cash transfer scheme that plays a crucial role in Ghana's social protection system. The programme was launched in 2008 and provides cash and free health insurance to extremely poor households on the following conditions: their children are attending school and have their birth registered, and family members are enrolled in the national Health Insurance Scheme. LEAP currently benefits more than 150 000 extremely poor households and is expanding its coverage to reach 200 000 by the end of 2016. In 2015, the government also added an additional category of persons to benefit from LEAP. This has broadened the eligibility criteria of extremely poor households to include pregnant and lactating women through a modified component of the national LEAP programme called LEAP-1000. This programme is designed to address extreme poverty and stunting and targets households with pregnant women and children less than 2 years of age. According to a joint UNICEF-FAO impact assessment released in 2014, the programme led to increased access to health insurance, school enrolment and attendance, as well as savings, reduced indebtedness, asset disinvestment and re-engagement with social networks. It has a potentially positive impact on the local economy.⁸

The sustainability of social protection schemes and programmes in Ghana largely depends on the coordination and collaborative efforts from all ministries that work to advance the welfare of the general population. To facilitate greater coordination of social intervention programmes, Ghana adopted a National Social Protection Policy in 2015 aimed at having a well-coordinated, intersectoral social protection system to ensure effective implementation and coordination. Furthermore, the Ghana National Household Registry (GNHR) was launched in 2015 to make the social protection system more effective and efficient by reducing duplicated efforts especially in the area of beneficiary selection. The existence of a single registry will mean that social protection will have the added advantage of having a beneficiary selection system that is standardized, inclusive and transparent. It is also expected that by drawing beneficiaries from one database, there will be increased coordination among the various social protection programmes being implemented in the country.

c) The National Nutrition Policy (NNP)

The desire of the government to meet MDGs 1, 4 and 5, and human development objectives under policy frameworks such as Vision 2020, contributed to placing nutrition high

⁸ <http://www.fao.org/docrep/019/as244e/as244e.pdf>

on the policy agenda and to allow for its sustainable implementation. International conferences such as the Second International Conference on Nutrition (ICN2), and the commitment of government to international conventions and goals have catalysed the adoption of the relevant policies. Advocacy and leadership roles played by the National Development Planning Commission, the Ministries of Health and Agriculture and Ghana Health Services have facilitated the design and adoption of the NNP and its subsequent incorporation into the government policy framework, which is the Ghana Shared Growth and Development Agenda (GSGDA II) 2014–2017. The development of nutrition policies has been evidence-based, beginning with concerns raised by development partners with particular nutrition deficiencies and other related issues, and surveys made to establish the extent and nature of the deficiencies in question. The surveys were followed by pilot interventions based on strategic recommendations. The government in collaboration with development partners then scaled up interventions to other parts of the country. The government has provided policy backing, personnel, facilities and some logistics for their implementation. However, national commitments to provide financial resources have been inadequate in ensuring sustainability.

d) Expansion of the school-feeding programme

The Ghana School-Feeding Programme (GSFP) started as a pilot in 2005 and was expanded nationwide in 2007. The government contributes 75 percent of the total cost. The objective of the GSFP is to reduce short-term hunger and malnutrition in school children, to boost domestic food production, to enhance school enrolment and attendance and to improve the nutritional and health status of children. The programme provides one nutritious meal per day for all school children between 4 and 12 years of age; food is produced and procured locally, with the aim of providing an output market for poor smallholder farmers.

According to the 2016 Budget Statement, in 2016 the school-feeding programme would be expanded to cover three million pupils nationwide. The programme is currently providing one hot and adequately nutritious meal to 1.7 million pupils in 4 881 schools every school day; it provides market access to farmers and jobs to about 20 000 caterers and cooks nationwide. Impact evaluations conducted by the government in 2015 revealed that the GSFP has significantly increased enrolment, especially for girls, and overall performance in beneficiary schools despite the challenges (MOGCSP, 2015).

2.2.3 Lesotho

Among low-income and middle-income countries, the percentage of GDP directed towards social protection in Lesotho, which is 6.6 percent, ranks among the highest compared to the average of 1.5 percent (World Bank, 2010).⁹ The country has put a number of social protection programmes in place, including an unconditional cash transfer programme, one of the largest school feeding programmes in the world and a universal pension programme for the elderly.

a) The Child Grant Programme (CGP)

The CGP was initially launched in 2009 with funding from the European Union and technical support from the United Nations Children's Emergency Fund (UNICEF). Starting from the fiscal year 2013/14, the Government of Lesotho has taken over 100 percent of the financing of the CGP. The programme aims at improving the living standards of orphans and vulnerable children (OVC) so as to reduce malnutrition, improve health status and increase school enrolment among OVC. The programme provides unconditional social cash transfers to poor and vulnerable households with children, and is now fully funded and administered by the government. To date, the programme covers 43 of the country's 67 community councils and full national coverage is expected by 2021.

b) School-Feeding Programme

In November 2014, the Ministry of Education and Training signed a Memorandum of Understanding (MoU) with the World Food Programme (WFP) that will ensure the temporary implementation of the entire school feeding programme by WFP between 2015 and 2017. Starting from 2018, the Government of Lesotho will fully fund the programme, while WFP will simultaneously assist in developing the capacity of the government to take full financial and managerial ownership.

c) National Policy on Social Development and National Social Protection Strategy

In February 2015, Lesotho launched a National Policy on Social Development and National Social Protection Strategy that represents a major milestone towards the creation of a social protection system. The government strives to strengthen social protection delivery and its targeting mechanism through: (i) the development of a national single registry built on the existing National Information System for Social Assistance (NISSA) and (ii) the use of diversified payment

⁹World Bank. 2015. The State of Social Safety Nets 2015. Washington, DC: World Bank. Available at <http://documents.worldbank.org/curated/en/415491467994645020/The-state-of-social-safety-nets-2015>

mechanisms with the introduction of a mobile payment facility. The NISSA, which began as a tool for the CGP, now includes information on more than 25 percent of all households in the country. It has the potential to become a single registry for all social assistance and social security programmes, which will be linked to the new national identity system that is being rolled out by the Ministry of Home Affairs.

This is a unique example in sub-Saharan Africa of a government taking over and scaling-up a donor-led initiative within a few years of operation. Uniquely among low- and lower-middle-income countries in Africa, Lesotho also has a universal old age pension system for 83 000 of its citizens over the age of 70, which represents a large part of the country's safety net spending.

2.2.4 Madagascar

Madagascar faces a difficult socio-economic environment evidenced by widespread poverty and malnutrition combined with high vulnerability to climatic shocks. Typically one-third of all households experience inadequate food security during the course of the year while recurrent cyclones, droughts and flooding continue to constrain efforts to build resilience within rural communities.

National Nutrition Policy

The National Nutrition Policy was formulated and adopted in 2004 and two phases were implemented from 2005 to 2008 and from 2012 to 2015. In 2015, it became necessary to review the Policy to take into consideration the new global initiative on nutrition challenges such as ICN2 and SDGs. Consequently, a long-term Madagascar Agricultural Development Policy (LPSAEP), also called the "Food and Nutrition Security and Agricultural Policy 2015–2025", was developed. The overall aim of the policy is to "enhance resilience, improve access to food, develop food fortification strategy, generate employment and diversify income. The policy is implemented through the programme's "Axis 3", and is estimated to cost US\$2.4 million. It will lead to food and nutrition security and Disaster Risk Reduction (DRR). The programme was designed to:

- improve food production to strengthen the resilience of poor and vulnerable populations by setting up 25 000 demonstration sites, providing production tools and equipment, conducting resilience training for actors/stakeholders and scaling up the techniques of agro-ecological and conservation agriculture for 240 000 farmers, strengthening relay organizations in agro-ecology, sensitizing producer communities on production diversification, and distribution of

aquaculture inputs to 4 000 fish farmers; and rehabilitating the irrigated areas damaged by cyclones and/or floods;

- improve the input and equipment distribution system through the establishment of 300 high nutritional value seed multiplication sites;
- ensure food availability and accessibility through the establishment of 96 functional health inspection stations, conducting training on food processing and preservation, operationalising the Money for Work productive system for one million vulnerable people by creating new farms, cleaning lakes from aquatic plants, exploiting 400 built dams and ponds (lower depths) and building 215 Community Food Reserves;
- conduct 2 500 nutrition education campaigns by facilitating training sessions in community sites, creating 180 equipped sites for rural women, sensitizing 600 municipalities on the food and nutrition surveillance system and reproducing 3 200 teaching materials for cooking demonstrations;
- develop a strategy for the production of biofortified foods through the installation of 2 000 test sites for the cultivation of new crop varieties, hold 3 000 outreach sessions, identify studied or transformed species and distribute 700 tonnes of fish dumplings to vulnerable producers; and
- strengthen the involvement and capacity of rural women in agricultural development, food security and climate change.

2.2.5 Malawi

Malawi is a landlocked and largely agricultural country in southern Africa, where the agricultural sector accounts for one-third of the GDP and nearly 80 percent of employment. Agriculture is considered the engine of Malawi's economic growth since, between 2005 and 2011, most of its income was dependent on the exports sales of tobacco, sugar and tea. Tobacco alone, however, represents 60 percent of Malawi's total exports. The agricultural sector is drought-prone and experienced severe droughts in the 1970s, 1990s and 2000s. Malawi is self-sufficient in food production except during drought periods. At the same time, Malawi remains among the five poorest countries in the world, with over 50 percent of the population living below the poverty line and one quarter considered 'ultra-poor'.

a) The Farm Input Subsidy Programme (FISP)

This Programme has been providing subsidized inputs to 1.5 million smallholders and resource-poor rural farming households. The FISP represents 60 percent of the budget of the Ministry of Agriculture, Irrigation and Water Development. However, while FISP greatly contributed to an increase in maize production from 2007 to 2014, it was clear in 2015 and again in 2016 that it had reached its limits given the high variability of rainfalls. Providing highly subsidized fertilizers under very variable climatic conditions may be neither effective nor efficient. There is a clear recognition that the country needs to adapt to climate change and to make the FISP more climate-smart.

In 2016, the Ministry of Agriculture started to reform the FISP by: (i) increasing farmer contribution; (ii) delegating 20 percent of the fertilizer distribution to the private sector; and (iii) reviewing the targeting system using a random selection out of the 4.5 million smallholder farming families. However, with the recent climatic challenges experienced in the country, there is a recognition that the existing programmes might need to be revisited in order to respond to the government priority as alluded to by the President in November 2015 as “building a resilient Malawi for sustainable development”. The objective was to move the utilization of subsidized fertilizers and certified seeds to ‘more productive’ smallholder farmers, who are able to use them more efficiently. Unfortunately, the difficult economic situation with 70 percent devaluation of the country’s currency — the Malawian Kwacha (MWK) — that resulted in high inflation has, among other things, made the FISP reform difficult.

b) The National Social Support Policy and Programme

The National Social Support Policy and Programme provides a set of instruments aimed at reducing poverty and extreme hunger as well as improving nutrition status. It includes unconditional cash transfers for the extremely poor households that have limited labour; school feeding for primary school children and take-home rations for girls and orphan boys in secondary schools; public work for poor households having labour to generate employment at the minimum wage; and village savings and loans to provide opportunities for poor households to save and mobilize credit for asset building and income diversification. A State of Food Insecurity report estimated that for the period 2012–14, food insecurity regularly affected 21.8 percent of the Malawian population, showing a 50 percent decrease compared to its level in 1992–1994. Unfortunately, the cash gate issues that emerged in 2013 and caused donors to withdraw from general and sectoral budget supports left the government in a challenging budgetary environment, as 40 percent of total government budget stems from donor support.

c) Increasing the amount in the cash transfer programme

In May 2015, the Social Cash Transfer Programme (SCTP) of Malawi increased the amount of money allotted for social cash transfer recipients. The objective is to address poverty and food insecurity while improving food security, as well as the health and nutrition status of beneficiaries. Eligible households are those who are extremely poor and labour-constrained, and members are usually old, chronically ill, orphaned and/or have disabilities. The programme provides unconditional cash transfers; by December 2015, it reached 18 out of 28 districts, with 170 000 beneficiary households. The programme was expected to cover 320 000 households by December 2016.

2.2.6 Mozambique

A country with vast agriculture potential as a regional food exporter, Mozambique’s agriculture sector is performing below its market capacity. Only 16 percent of agricultural land is cultivated contributing to low levels of crop production. Widening food access and increasing productivity rates have been identified as key national priorities for improved food security.

The Government Five-Year Plan

The Government Five-Year Plan (*Plano Quinquenal do Governo*) (PQG) 2015–2019 was launched in 2015, and aimed at improving the living conditions of the people of Mozambique by increasing employment, productivity and competitiveness; creating wealth and generating a balanced and inclusive development in an environment of peace, security, harmony, solidarity, justice and cohesion. The plan highlights the role of agriculture as a fundamental component of development and industrialization.

Through the PQG, the Ministry of Agriculture (MINAG) became the Ministry of Agriculture and Food Security, and it is responsible for (i) promoting good practices on the preparation and use of food to promote food and nutrition security (ii) producing, systematizing and disseminating information on food security and nutrition in the country, (iii) promoting programmes for public education and information on food access, preservation and processing, and (iv) providing nutrition education for communities and promoting the consumption of nutritious foods. The PQG aims to reduce chronic undernourishment levels in Mozambique from the current 43 percent to 35 percent by 2019.

2.2.7 Nigeria

Nigeria's agriculture sector has undergone major reforms and transformation since the introduction of the Agricultural Transformation Agenda (2013) which has produced profound changes in the input delivery or Growth Enhancement Support (GES) Scheme, agricultural financing, value chain development, including the Staple Crop Processing Zones and farm mechanization. Between 2011 and 2014, national food production increased by 21 million MT and led to a sharp reduction in food imports.¹⁰ The agricultural sector in Nigeria employs 60 percent of the working population and accounts for over 40 percent of its GDP, although a higher poverty rate affects households whose primary source of income is agriculture.¹¹ Social protection is one of the building blocks of the country's human development plan, and ranks high on the development policy agenda of the new administration.¹²

In 2016, the government scaled up the "Home-Grown School-Feeding" (HGSF) programme to the national level. In the National Budget Speech, President Muhammadu Buhari announced his commitment to feed all primary school children in Nigeria (targeting 5.5 million children in the first year of its operation) starting with 18 states. The HGSF programme provides free school meals procured from local farmers. Additionally, in June 2016, the government launched the National Home-Grown School-Feeding Strategic Plan that will run until 2020 and constitutes the cornerstone of the nationwide HGSF programme. The latter is part of a 500 billion naira funded Social Investment Programme announced by President Buhari's administration to tackle poverty and improve the health and education of children and other vulnerable groups. When fully realized, the School-feeding component of this programme will support States to collectively feed more than 24 million school children making it the largest school feeding programme of its kind in Africa.

Furthermore, the Nigerian Government committed to allocate US\$1.3 billion of its own budget to the National Social Safety Nets Project (NASSP) which will lay the foundation for the establishment of the country's first social protection system.¹³ The aim of the NASSP is to support the government's programme by expanding the access of poor households to social safety nets while also developing systems at the federal level for use by other safety nets and public programmes. In June 2016, the World Bank earmarked US\$500 million for the implementation of the NASSP. Ultimately, the establishment of these safety net system building blocks will allow the

government to target and deliver a range of programmes to poor households more effectively and efficiently.¹⁴ The Project will support the government programme by providing cash transfers to poor households throughout Nigeria, identified through a combination of geographical and community-based targeting. Moreover, there are plans to adopt an electronic national registry, in order to target the poor and vulnerable households¹⁵.

2.2.8 Rwanda

In Rwanda, food security and nutrition are recognized as important for the overall development of the country and are highlighted among the mid-term priorities in the national second Economic Development and Poverty Reduction Strategy (EDPRS II, 2013–2018). According to the National Institute of Statistics of Rwanda (NISR, 2015), national food production has grown more than twice that of the rate of population between 2007 and 2014. Well-developed infrastructure allows food to move across the country and between countries in the region; thus, 81 percent of Rwandan households are food secure against 19 percent who live in food insecurity.

The Rwandan Government uses a multisectoral approach to tackle food security and nutrition related issues. With support from FAO, UNICEF, WFP and WHO, a National Stakeholder and Action Mapping was developed in 2015 to better understand the geographic coverage and targeted populations. The European Union thereafter supported the development of a Nutrition Dashboard, which is a web-based information system to track real-time information related to food and nutrition in Rwanda.

a) Expansion of the *Girinka* programme

The *Girinka* programme, also known as *One cow per family*, was launched by the government in 2006 in response to the alarmingly high rate of childhood malnutrition, and as a way to accelerate poverty reduction while combining livestock and crop farming. The main activity of the programme is the distribution of pregnant cows to vulnerable families to improve their livelihoods and nutrition, generate employment and provide stable income. In this way, malnutrition is reduced by increasing milk intake and family income through sales of surplus milk. Credit facilities have also been put in place from the Rwandan Popular Bank for farmers who can afford to buy their own cows. By the end of 2013, most beneficiaries produced enough milk to sell surplus in the market.¹⁶

¹⁰Federal Ministry of Agriculture and Development: <https://fmard.gov.ng/>

¹¹World Bank, 2014

¹²<http://www.africaneconomicoutlook.org/en/country-notes/nigeria>.

¹³<http://www.worldbank.org/en/news/press-release/2016/06/07/world-bank-commits-half-a-billion-dollars-to-provide-social-assistance-to-nigerias-poorest>.

¹⁴http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/AFR/2016/03/23/090224b084226967/1_0/Rendered/INDEX/Project0Inform0ts0Project000P151488.txt,

¹⁵<http://www.worldbank.org/en/news/press-release/2016/06/07/world-bank-commits-half-a-billion-dollars-to-provide-social-assistance-to-nigerias-poorest>

¹⁶<http://www.minagri.gov.rw/index.php?id=28>.

In 2015–2016, free cow distributions to vulnerable families continued across the country under the *Girinka* programme, and 13 658 animals were distributed to poor families, apart from the 94 868 artificially inseminated cows distributed in 2014. Since its inception in 2006, the programme has expanded significantly over the years and now covers all districts in the country. Originally it aimed to reach 257 000 beneficiaries but this target was revised upwards in 2010 to reach 350 000 beneficiaries by 2017.

b) Vision 2020 *Umurenge* Programme (VUP)

The VUP is a flagship programme of the Economic Development and Poverty Reduction Strategy (EDPRS). It started in 2008 and targets not only the landless and the extremely poor households but also those households owning less than 0.25 hectare. The programme has three components: public works started in 2008, which provides opportunities for community work for extremely poor households with labour capacity; direct support started in 2009, which gives cash grants to extremely poor households without labour capacity; and financial services started in 2010 that acts as a complementary service to social protection and provides investment loans to poor households. Through this programme, beneficiaries also get medical insurance. In the financial year 2014/15, VUP earmarked 11.8 billion Rwandan francs (RWF) (US\$16.4 million) for direct support in 330 sectors while RWF13 billion (US\$18 million) was earmarked for public works targeting 130 000 households. VUP is expected to be scaled up in 2015/16 to cover all 416 sectors.¹⁷

In December 2015, the Rwandan Government and the World Bank Group signed a US\$95 million loan to support the Rwandan Social Protection System. This programme will focus on core areas of administrative efficiency and programme harmonization to deepen needed reforms, especially through the *Ubudehe* database¹⁸ and social protection Management Information System (MIS). It will deepen the focus on accountability and transparency with an emphasis on accountable governance through improved budget transparency and citizens' engagement.

2.2.9 Uganda

Impressive growth rates have propelled Uganda into a rising star in the region, contributing to sustained progress towards the achievement of MGD1. The agriculture sector is central to the national economy, providing 85 percent of export earnings and almost 75 percent of employment. Agricultural exports are dominated by the coffee sector, while key staple crops include maize and beans.

National Social Protection Policy

In September 2015, Uganda adopted a National Social Protection Policy that provides a basis for a holistic approach to addressing the risks and vulnerabilities faced by different categories of populations, in both the formal and informal sectors. This policy seeks to harmonize and promote effective coordination and implementation of the various interventions that address different risks and vulnerabilities. Since 2010, the Government of Uganda is implementing the Expanding Social Protection Programme (ESP), which has a component on Social Assistance Grants for Empowerment (SAGE). The aim of the SAGE is to test a range of implementation modalities for an efficient, cost-effective and scalable social transfer. The pilot took place between 2011 and 2015 using two targeting methodologies in separate subcounties in the 14 selected districts: the Vulnerable Family Support Grant (VFSG) employed a composite index based on demographic indicators of vulnerability to determine eligibility; the Senior Citizens Grant (SCG) used age to determine eligibility.

The Ministry of Gender, Labour and Social Development has decided to phase out the VFSG but simultaneously scale up the SCG with effect from November 2015. The results of the pilot showed that the VFSG has proved more challenging to implement as the criteria (vulnerability score) used to identify vulnerable households was not easily understood by communities. The identification of the beneficiaries has proved costly and labour-intensive. In addition, the VFSG excluded older persons in the targeted households from accessing the SCG, unlike their counterparts in neighbouring subcounties where all older persons aged 65 years and above benefit from the programme. For these reasons, local leaders indicated their preference for the SCG. The government has already allocated resources to scale up the SCG that will also be implemented in the subcounties previously covered by the VFSG.

2.2.10 Zambia

Robust agriculture growth rates in Zambia have been achieved, well exceeding the 6 percent CAADP target. Enhanced use of hybrid seeds combined with increased fertilizer use have both contributed to higher crop production levels, although persistently high rural poverty rates remain a concern particularly among smallholders. Poverty is exacerbated in rural areas mainly because of dependency on subsistence agriculture affected by climate change. Nevertheless, the national Central Statistics Office reported that poverty decreased slightly between 2010 and 2015.¹⁹

¹⁷FAO, FAPDA, Country fact sheet on food and agriculture policy trends – Rwanda, July 2016.

¹⁸Ubudehe is a government programme aimed at reducing poverty levels with a special emphasis on poor households.

¹⁹<http://www.africaneconomicoutlook.org/en/country-notes/zambia>,

a) Introducing the National Social Protection Policy and the National Youth Policy

In December 2014, the Zambian Government launched its new National Social Protection Policy, along with an implementation plan for 2015–2018.²⁰ The policy incorporates nutrition-sensitive aspects. The mainstreaming of nutrition issues into key social assistance programmes was also scheduled for 2015.

In addition, the government launched in 2015 the National Youth Policy and action plan on youth empowerment and employment for Zambia. The policy aims at implementing interventions that provide youth with equal access to opportunities that enable them to grow, develop and prosper as fully engaged, responsible and productive citizens. It offers priorities to effectively, efficiently and sustainably realize youth development that is relevant to the Zambian context and will ensure that young women and men realize their full potential to contribute to national development.

b) Expanding the HGSF Programme coverage

The government has increased the number of beneficiaries of the HGSF, targeting 890 000 children in 2 200 schools. The programme, which has been implemented since 2003, aims at improving the learning outcomes of students by providing school meals, preferably made from produce procured from smallholder farmers. Targeted districts have

high levels of food insecurity, HIV infection, poverty and malnutrition and low levels of educational achievement. In order to be eligible, children must be enrolled in primary schools within the districts targeted by the programme. The students receive a daily meal of fortified maize, which is prepared and delivered at schools. The estimated cost of each meal is ZMK520 or US\$0.10, which implies a transfer value of ZMK15 500 per month (US\$3.12) to the beneficiaries.

c) Increase budget allocation for SCTP

The Social Cash Transfer Programme (SCTP) is Zambia's flagship social protection programme. The SCTP is mainly funded by the government, but additional contributions are provided by other partners.²¹ In 2016, the government also increased the funding to the SCTP as stated in the 2016 Budget Speech. The budget has almost been doubled from ZMK180 million (US\$32 million) for 2015 to ZMK302 million (US\$47 million) for 2016 and the allocation is projected to increase further to ZMK350 million in 2018. At the end of 2015, the SCTP was being implemented in 50 districts out of 774. In 2016, the number of households receiving cash transfers, 80 percent of which are government-funded, rose to 200 000. The programme is expected to be rolled out nationwide in 2017–18.²² Social protection reforms are also being carried out by the government, with a view to establishing a national social health insurance scheme (Ministry of Finance, 2014).²³

²⁰<http://www.social-protection.org/gimi/gess/RessourcePDFaction?ressourceId=53233>

²¹ZMK 305 million or approximately US\$30 million (2016), of which ZMK 250 million comes from government funding.

²²http://www.ipc-undp.org/pub/eng/Social_Protection_in_Africa.pdf

²³http://www.ipc-undp.org/pub/eng/Social_Protection_in_Africa.pdf http://resourcecentre.savethechildren.se/sites/default/files/documents/malnutrition_in_zambia_-_harnessing_social_protection_for_the_most_vulnerable.pdf



Photo Credit: ©FAO/Giulio Napolitano

Women at work as they prepare the field for the next rainy season by excavating mid-moon dams to save water. The FAO project for Action Against Desertification is an initiative with the African, Caribbean and Pacific Group of States (ACP) to promote sustainable land management and restore drylands and degraded lands in Africa.

Part Three – Building resilience for food security and nutrition in the context of increasing threats and shocks

Some of the main causes of food insecurity and malnutrition in the region are associated with natural disasters, including severe droughts and floods, leading to failed crops, insufficient pasture feed and water for livestock, and persistent political instability, conflicts and other forms of violence. This chapter highlights how climate change in the form of drought or flood, induced by El Niño and La Niña, as well as conflict, are major hazards affecting agriculture-based livelihoods in Africa. It also documents policies and strategies put in place by continental, regional and national governing bodies in the region to adapt to climate change and mitigate its negative effects on agriculture and livelihoods. The chapter underscores the importance of resilient food systems as a prerequisite for sustainable agriculture, food security and nutrition.

3.1 The threats of climate change, drought and conflict on livelihoods in sub-Saharan Africa

Populations in Africa are increasingly exposed to natural hazards, to man-made crises (socio-economic shocks, conflicts, etc.) and protracted crises that can wipe out years of development. The frequency, magnitude and impact of these shocks affecting Africa and its agriculture (including livestock, fisheries and forestry) have increased over the last few decades. Agriculture in Africa is particularly vulnerable to the impacts of climate variability and change, given that it is largely rain-fed and also due to the fact that productivity is already low; hence, there is limited “shock-absorption” capacity. In fact, 47 sub-Saharan African countries submitted their Intended Nationally Determined Contributions (INDC) to the COP21 in which all countries mentioned climate change threats on livelihood, health and economics whereas 94 percent referred to climate change as a threat to food production.

a) Climate change

The expected effects of climate change, including higher temperatures, extreme weather events, drought, rising sea levels, disruption of ecosystems and loss of biodiversity, will seriously affect agriculture and rural livelihoods if no action is taken to improve adaptation and mitigation capacity at local, country and regional levels. The Intergovernmental Panel on Climate Change (IPCCC) reported in 2007 on the projected impact of climate change in Africa. Key figures show that:

- Between 75 and 250 million people in Africa are projected to be exposed to increased water stress due to climate change by 2020.
- By 2020, in some countries, yields from rain-fed agriculture could be reduced by up to 50 percent. Agricultural production, including access to food, is projected to be severely compromised in many African countries. This would further adversely affect food security and exacerbate malnutrition.
- Africa has close to 320 coastal cities with more than 10 000 people, and an estimated population of 56 million people in 2005 living in low-elevation coastal zones. Towards the end of the twenty-first century, projected sea-level rise will affect low-lying coastal areas and increase the vulnerability of coastal cities. The projection that sea-level rise could increase flooding, particularly on the coasts of eastern Africa, will have implications for health.
- By 2080, an increase of 5 to 8 percent of arid and semi-arid lands in Africa is projected under a range of climate scenarios.

These projections call for urgent actions for climate change adaptation and mitigation in the continent. According to the African Development Bank, adaptation costs in Africa will be US\$20–30 billion per annum over the next 10 to 20 years. African countries have made efforts to improve agriculture adaptation to climate change through engagements at various levels and in different fora. This includes the CAADP 2015-25 Results Framework,²⁴ which targets at least 25 million smallholder households for practicing Climate Smart Agriculture (CSA) by 2025. It also includes the Ministerial Declaration on food security and the agriculture sectors in the changing climate at the 29th FAO Regional Conference for Africa²⁵ as well as the Adaptation of African Agriculture – or Triple A – initiative discussed and launched during COP22.

b) Drought – the case of the 2015/2016 El Niño and La Niña phenomena

The recent drought has had devastating impacts on agriculture and food security – from cropping to livestock and fisheries.

El Niño's impacts on cropping and livestock

In Africa, 2015 and 2016 have mostly been marked by the impact of El Niño and various conflicts. The El Niño effect is

²⁴http://www.nepad-caadp.net/sites/default/files/the_caadp_results_framework_2015-2025.pdf

²⁵http://www.fao.org/fileadmin/user_upload/bodies/Regional_Conferences_2016/ARC_29/Abidjan_Ministerial_Declaration.pdf

caused by the warming of the ocean surface to above-average sea surface temperatures in either the central and eastern tropical Pacific Ocean, which is called the El Niño Southern Oscillation (ENSO). The cool phase is called La Niña. The ENSO cycle – both El Niño and La Niña – causes global changes in both temperature and rainfall. While reduced rainfall and drought are key outcomes of El Niño in parts of eastern and all of southern Africa, the phenomenon can also cause heavy rains and flooding in certain locations. The impact of El Niño on agriculture and food security depends on a complex interplay of meteorological factors and ranges from minor to severe. The 2015/16 El Niño phenomenon is notable in terms of severity and in terms of negative impact.

In terms of impact on crop and livestock production and agricultural livelihoods, the 2015/16 El Niño is one of the most intense and widespread in the past 100 years. The agriculture, food security and nutritional status of tens of millions of people in Africa are currently affected by El Niño-related droughts and floods. In early July 2016, FAO estimated that more than 60 million people, with two-thirds of them in eastern and southern Africa, faced food shortages because of El Niño-related droughts.²⁶

The countries most affected are: Ethiopia, Somalia and Sudan in eastern Africa, and all countries in southern Africa. In Ethiopia, an estimated 10.2 million people required food assistance in 2016. Malnutrition rates across the country remain extremely high, with over one-third of Ethiopia's *woredas* now classified as facing a food security and nutrition crisis. In Sudan, 4.6 million people are acutely food insecure, primarily due to the effects of El Niño; this number is likely to increase due to below-average agricultural production in 2015, rising staple food prices, very poor pasture conditions and continued conflict. In Somalia, nearly 4.7 million people are food insecure. In southern Africa, an estimated 31.6 million people are food insecure and the forecast continues to indicate drier than normal conditions. More than 643 000 drought-related livestock deaths have been reported in Botswana, Namibia, South Africa, Swaziland and Zimbabwe. As a result of more effective global early warning and prediction systems, countries were informed at an early stage of the magnitude and potential impact of El Niño.

El Niño's impacts on fisheries and aquaculture

The effects of El Niño on fisheries and aquaculture are traditionally mixed. Western African marine fisheries are strongly supported by the upwelling phenomena. Interestingly, some species were caught in abundance in fish catches when El Niño was underway in western Africa. For example,

extremely large catches of sardinella were recorded in Côte d'Ivoire and Ghana in 1972; triggerfish was caught in the same areas after the phenomena occurred in parts of 1982/83; and octopus were caught in Senegal and Gambia in 1999, right after the El Niño of 1997/98. In southern Africa, it is believed that the relatively mild El Niño of 1991 may have had strong detrimental effects on the fisheries and marine ecosystem of Namibia,²⁷ which are also dependent on the upwelling events in that area.

Lake Chad's level and fish production varied substantially over time as a result of climate change and El Niño's effects, among others. The total surface area depends strongly on the quantity of precipitation during the rainy season. Analyses show that a warm phase of the Atlantic Multi-decadal Oscillation (AMO) and a prolonged La Niña episode play a major role in increased precipitation in the Sahel region. Lake Chad's level improved gradually thanks to this increased precipitation, even though it is likely to remain below the levels recorded in the 1960s. Research carried out by Okwonko²⁸ and collaborators in 2015 provided an explanation for the strong reduction in water levels. It is likely that ENSO had its impact on Indian Ocean fisheries as well; for instance, on the different tuna resources. If the ENSO could have a big impact on the marine fisheries, then questions might be raised as to its potential effects on the African Great Lakes. The two deepest lakes, Tanganyika and Malawi/Nyassa, show clear signs of upwelling, although not as strongly as in the ocean. However, data collection may not be sufficiently complete to draw conclusions regarding ENSO's effect on fish production. Obviously, severe wet and dry conditions leave their mark on the aquaculture sector, particularly pond fish culture. Mitigation measures, like pond dyke enlargement and strengthening to prevent fish from escaping in the event of flooding, or water source improvement like the drilling of boreholes to prevent dry-outs, might be costly.

c) Conflict

Most conflicts mainly affect rural areas and their populations. This is particularly true of civil conflicts, which have tripled in recent years, and which are today the most common form of armed conflict, as well as increasingly prolonged. Such conflicts damage agriculture, disrupt food production and food systems, fuel the plundering of crops and livestock, and cause loss of assets and incomes. As a result, they are drivers of food insecurity and malnutrition, both acute and chronic.

Building resilience of households, communities and nations to such shocks in order to mitigate their impact on food security and nutrition has gained further importance in the

²⁶http://www.fao.org/fileadmin/user_upload/emergencies/docs/FAOElNinoSitRep_versionJULY.pdf

²⁷<http://www.fao.org/docrep/004/w7174e/w7174e11.htm>

²⁸Okwonko, C., B. Demoz, R. Sakai, C. Ichoku, C. Anarado, J. Adegoke, A. Amadou, S. I. Abdullahi, and N. Krakauer, 2015. Combined effect of El Niño southern oscillation and Atlantic multidecadal oscillation on Lake Chad level variability. *Cogent Geoscience* Vol. 1, 72 p.

agenda of stakeholders, from the continental to the local level. The following sections highlight major policy commitments and responses to climate change and the El Niño phenomenon at regional, subregional and national levels, as well as efforts to build resilience and support peace-building in the context of conflicts.

3.2 Policies and programmes for climate change adaptation and mitigation

The IPCC confirmed the high level of vulnerability of countries in Africa and the need to enhance the adaptive capacity of the agriculture sector against the impacts of climate change. To address climate change-related challenges and align with the global climate governance regime, 30 African countries have produced climate policy frameworks such as the National Adaptation Plan of Action (NAPA) and Nationally Appropriate Mitigation Actions (NAMAs) to implement action plans focusing on priority adaptation activities that address urgent and immediate needs.

a) The African Union and NEPAD programme on agriculture and climate change

The AU/NEPAD programme on agriculture and climate change was guided by the 2014 Malabo Declaration on accelerated agricultural growth and transformation for shared prosperity and improved livelihoods. One of the 7 commitments was “enhancing resilience in livelihoods and production systems to climate variability and other related risks”, with the objective of having “at least 30 percent of farming and pastoral households resilient to climate and weather related risks” by 2025.

The programme aims to stimulate and galvanize multisectorial and transnational efforts to leverage political, policy, technical and financing action to support the scaling up of Climate-Smart Agriculture (CSA) in Africa. The goal is to have at least 25 million farm households practising CSA by 2025. An African CSA Coordination Platform was also launched to promote regional integration and knowledge exchange to identify best practices and catalyse partnerships across different stakeholder groups. NEPAD also launched the NEPAD-iNGO CSA Alliance as a unique and innovative partnership involving a number of NGOs and technical partners on one side, and country-level state and non-state players on the other to leverage members’ strengths in support of grassroots initiatives to scale up CSA. The Alliance is targeting 6 million farm households within the broader 25 million targeted for 2025.

b) The programme on Reducing Emissions from Deforestation and Forest Degradation (REDD)

REDD is a forest-based climate change mitigation mechanism, with adaptation benefits put in place by the United Nations Framework Convention on Climate Change (UNFCCC) to provide positive incentives to developing countries in order to reduce emissions from deforestation and forest degradation; to promote the conservation, sustainable management and enhancement of forest carbon stocks; and to encourage investment in low-carbon paths to sustainable development. In Africa, 28 countries are being supported through the UN-REDD Programme to develop and implement the REDD+ Readiness Activities, also known as the four elements of the Cancun Agreement/Warsaw Framework, which are national strategy or action plans, national forest monitoring systems, national forest (emissions) levels, and systems to ensure that safeguards are addressed and respected.

Countries in Africa have addressed climate change in their Intended Nationally Determined Contributions (INDCs) submitted to the UNFCCC. The countries have highlighted the vulnerability of Agriculture, Forestry and Other Land Use (AFOLU) sectors to climate change as well as their important role in both adaptation and mitigation strategies. As a follow up to the Paris Agreement adopted during the 21st Conference of Parties to the Convention (COP21), countries are committed to implementing their INDCs across various sectors, including in agriculture and food systems. This implies development of programmes and policies at country and regional levels to align with these new commitments. These efforts will sustainably increase productivity, resilience and adaptation, as well as build capacity at all levels, especially for smallholder farmers and institutions in order to attain the goal of having 25 million African farmers practising CSA by 2025.

c) The Global Alliance for Action for Drought Resilience and Growth in the Horn of Africa

This initiative aligns programmes and funding with plans that are developed and owned by governments of drought-affected areas in the Horn of Africa. Along this line, the European Union has financed several initiatives for building resilience among pastoralists and agropastoralists. One of the initiatives is the “Supporting the Horn of Africa’s Resilience” (SHARE), which aims to strengthen livelihood opportunities for agropastoral communities and is improving income for pastoral communities who depend on livestock. As part of this initiative, there is a large vaccination programme against PPR in the region. The Drought Resilience and Sustainable Livelihoods Programme is another EU-financed project which, among others, focuses on livestock infrastructure and markets, marketing of livestock and livestock products, as well enhancing

the availability of infrastructure for water and pasture management among communities in Ethiopia, Kenya and Somalia.

d) The Global Alliance for Resilience in the Sahel (AGIR)

Extreme climate events such as droughts and floods, and armed conflicts increase the risk of vulnerability of pastoralists and agropastoralists, who, in extreme conditions, sell their productive assets such as their reproductive livestock. Under AGIR, two major livestock producers associations, the Billital Maroobe Network and the Association for the Promotion of Livestock in the Sahel and Savannah (APESS), are involved in information and early warning system as well as resilience-building through increased access to animal health and feed during emergencies.

e) Tripartite programme on climate change adaptation and mitigation

Within the same context, COMESA, EAC and SADC are jointly implementing an initiative which aims to contribute towards addressing the impacts of climate change in the eastern and southern regions of Africa. Accordingly, supports are provided for the development of the National Agricultural Investment Plans (NAIPs) in Lesotho, Malawi, Swaziland, Uganda, Zambia and Zimbabwe, to take into consideration climate change and its impact on agriculture, natural resources, and food and nutrition security. Other countries are engaged in adopting and upscaling CSA practices by developing country profiles (Kenya, Rwanda and Senegal) and mainstreaming CSA into national policies (Ethiopia, Ghana). National and regional platforms for collaboration and concerted actions among CSA stakeholders are being initiated in Ethiopia, Ghana, Niger and Zambia.

f) Regional Sahel Pastoralism Support Project (PRAPS)

For pastoralists, drought results in a reduction in grazing resources and contributes to their vulnerability. The problems of acute shortage of animal feed, particularly grazing resources, have been exacerbated by unfavourable weather events in Africa. Weakness of veterinary services, limited access to high-yielding genetic material, lack of enabling environment and investment to deal with drought, as well as lack of market access are among the major factors limiting the potential of livestock production in Africa. The growing number of livestock, particularly in pastoral areas of Africa, the expansion of crop cultivation and climate change are increasing the competition between farmers and livestock producers for limited natural resources.

In order to address the challenges of climate change, land degradation, extension of crop farming, ambiguities in land tenure systems and lack of marketing information and facilities, a Regional Sahel Pastoralism Support Project (PRAPS) was developed with support of FAO. The World Bank financed the project to the tune of US\$250 million for a period of six years (2015–2021). It covers six Sahelian countries (Burkina Faso, Chad, Mali, Mauritania, Niger and Senegal) and focuses on improving the livelihood of pastoral communities. Two of the five components of the project deal with resilience building. Component 1 on animal health has an objective of strengthening national veterinary services (mainly disease surveillance) and the control of two major transboundary animal diseases (TADs) in western Africa: contagious bovine pleuro-pneumonia (CBP) and PPR. Component 2 addresses better management of natural resources, with expected results being better access to grazing and water. Component 4 aims to improve pastoral crisis management, targeting better preparedness and response in the face of shocks. A similar programme called Regional Investment Programme for the Development of Livestock in Coastal States (PRIDEC) is being prepared under the umbrella of ECOWAS and the Billital Maroobe Network.

g) The West African Alliance for Convergence and Coordination of Climate-Smart Agriculture

ECOWAS and its partners launched the West African Alliance for Convergence and Coordination of Climate-Smart Agriculture initiative in June 2015. The objective of the Alliance is to support the implementation of the CSA Framework for Action of ECOWAP/CAADP by providing a consultation, coordination, convergence, funding and monitoring framework for initiatives by members of the Alliance. The aim is to sustainably and equitably increase productivity and farm incomes, to enhance adaptation and resilience to climate variability and change, and to control and/or reduce greenhouse gas emissions wherever possible and appropriate.

The Alliance has four convergence focus areas: (i) support CSA ownership, planning, implementation, funding and monitoring and evaluation in agricultural investment programmes at different levels of public action; (ii) strengthen intersector coherence, interinstitutional dialogue and interlevel coordination of agricultural investment programmes for CSA; (iii) increase resource mobilization for CSA in agricultural investment programmes; and (iv) enhance coordination and convergence of CSA technical, scientific, institutional, policy and financial initiatives in the strategic orientations and operational priorities of agricultural investment programmes. It is worth noting that one of the main focuses of the second generation of ECOWAP will be the improvement of prevention and better crisis management through resilience-building.

h) Subregional Action Programme to Combat Desertification Regional Climate Change Strategy and Action Plan

The Ministers for Environment and Natural Resources approved the strategy and action plan in November 2015. The Strategy aims to facilitate actions to address the impact of climate change in the region through successful implementation of adaptation and greenhouse gas mitigation actions. Furthermore, the strategy proposes to enhance regional sustainable development while also increasing social resilience to climate risks and reducing poverty. In the same vein, a Subregional Action Programme to Combat Desertification (2015–2025) was approved by the Ministers for Environment and Natural Resources in November 2015.

i) The role of Agropastoral Field Schools in resilience-building

Farmer Field School (FFS), designed by FAO in Asia in the late 1980s, was originally established to educate farmers to better manage and sustain their production systems. The programme was later expanded to African countries, adapted to pastoral production systems, and called Agropastoral Field Schools (APFS). Here the focus is on better understanding of local conditions and using local knowledge to find solutions. In the case of agropastoralism, in addition to the traditional approach of enhancing production, improving livelihood and building resilience were also introduced and experimented upon in a participatory manner. So far, APFS have been used to build resilience of pastoralists in Ethiopia, Kenya, South Sudan and Uganda. Through South-South Cooperation, pastoralists from four west and central African countries (Burkina Faso, Chad, Mali and Niger) visited Ethiopia to learn from experiences. Through training and capacity development, the concept is set to be developed in Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Gabon, Mali, Niger, Senegal and Togo.

j) Policies on combating drought in eastern Africa

Eastern African countries, especially Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda, are prone to food insecurity. Frequent droughts resulting from the El-Niño phenomenon and conflicts have been major factors contributing to the chronic hunger and undernourishment in the subregion. Ethiopia, Somalia and Sudan are the countries most affected by El Niño in the subregion in recent years.²⁹

The Intergovernmental Authority on Development (IGAD) resolved at its summit held in Nairobi in September 2011 to establish a Drought Disaster Resilience and Sustainability Initiative (IDDRSI). The fourth General Assembly of IDDRSI was held in April 2016, during which Member States and development partners renewed their commitment to ending drought emergencies in the region. IGAD Climate Prediction and Application Centre (ICPAC) convened the forty-third Greater Horn of Africa Climate Outlook Forum in May 2016 to develop and provide consensus regional climate perspectives for the June to September 2016 rainfall season. ICPAC also aims to formulate mitigation strategies for the implications of forecasted seasonal rainfall and temperature on the key socio-economic sectors in the Greater Horn of Africa (GHA). The El Niño phenomenon has certainly contributed to the agreements made with various international partners (including UN agencies, the World Bank and AfDB) to further support the capacities of IGAD and Member States. In view of the impact on pastoralist households, IGAD members have committed to increase public funding to support the livestock sector.

IGAD and its partners held several meetings in pursuit to their commitment to ending drought emergencies in the Horn of Africa: the third IDDRSI Platform General Assembly held in March 2015 in Addis Ababa; the fifth IDDRSI Platform Steering Committee Meeting in October 2015 in Djibouti; and the cross-border cooperation workshop held in April 2016 in Nairobi, to review the progress made in the implementation of the drought resilience initiative throughout the IGAD region, to examine the challenges met and the opportunities available for future interventions, and to discuss proposals and recommendations for the way forward. These are just a few examples of such meetings. The cross-border cooperation workshop responded to the Steering Committee recommendations expressed in its third and fourth meetings. The IDDRSI contributes to the realization of the Africa Union Agenda 2063 and its focus on disaster risk reduction, with specific focus on transboundary animal diseases. At the global level, IDDRSI builds on the Sendai Framework of Action 2015–2030 and the United Nations Sustainable Development Goals for 2030 related to resilience-building and the promotion of disaster-risk governance.

k) Promoting African insurance markets

Insurance helps people avoid destitution, smooth their consumption, protect their assets, and pursue high-return economic activities and investments. In this way, insurance is one strategy on a continuum of risk management options. Increasing the access of poor households to insurance

²⁹<http://reliefweb.int/sites/reliefweb.int/files/resources/WFP%20%26%20FAO%20El%20Ni%C3%B1o%20Overview%20by%20FSC%20-%202016-04-21.pdf>

mechanisms can prevent them from having to rely on publicly funded support, for example, from a safety net programme, and to cope with the negative consequences of a shock. It can also encourage people to adopt alternative, more productive livelihoods that can lift them out of poverty (for example, planting higher-yielding crops insured against the risk of drought).

The AU established the Africa Risk Capacity (ARC) as a fully-fledged continent-based agricultural insurance mechanism with the aim to support African states in improving their capacities to better plan, prepare and respond to extreme weather events and natural disasters, and thus protect the food security of their vulnerable populations. The ARC brings together three critical elements: (i) early warning; (ii) insurance and risk pooling; and (iii) contingency planning. In 2013–14, ARC worked with six countries towards participation in the first insurance pool. Nine countries are expected to be in the second pool. Four more countries are working towards participation in drought coverage and three countries for floods in the 2016 pool. The ARC aims to provide coverage against drought, flood and tropical cyclones to 20 countries by 2019.

Several countries are equally committed to building resilience for food security and nutrition in the context of climate change. The cases of Nigeria and Rwanda are reported below.

l) Examples from country experiences

a. Nigeria

In 2014, the Nigerian government launched the National Agricultural Resilience Framework, which is a structured plan for making the country's agricultural sector resilient to the shocks and stresses brought upon it by climate change.³⁰ It would achieve this through the strengthening of the overall policy and institutional framework for improved resilience and adaptation to climate variability and change in the agricultural sector, including planning and implementation, systems for resource mobilization, and effective project monitoring and evaluation. In 2015, the Minister for Agriculture and Rural Development announced that the federal government had launched a national crop insurance programme called "Planting with Peace Programme" where more than

³⁰<http://boris.unibe.ch/62564/1/Nigeria%20Changing%20Climate.pdf>

10 million farmers would get access to crop insurance starting from 2015. The programme would cover crop insurance and strategic grain reserves through the design and the implementation of a flood disaster payment policy that would protect farmers, communities and states from economic losses due to floods.³¹

b. Rwanda

To build a more climate-resilient agriculture sector,³² the Rwandan Government, together with different partners, launched a new project in March 2016: "Rwanda Climate Services for Agriculture". This will benefit nearly one million farmers over the next three years and reshape national food security planning for the long term. The three-year project will ultimately help transform Rwanda's rural farming communities and national economy through improved climate risk management, enabling access to reliable climate and weather forecasts for informed decisions on harvest timing and use of fertilizers.³³

The new project is unique in that it addresses two critical issues: (i) reconstructing Rwanda's incomplete meteorological data record (disrupted after the 1994 civil war and genocide) using cutting-edge climate science, and (ii) developing climate information products and services based on the expressed needs of farmers and other end users. The project aims to deliver four specific outcomes:

- Climate services for farmers: Farmers across 30 districts in Rwanda will have decision-relevant, operational climate information and advisory services, and be trained to utilize the information effectively to better manage risk.
- Climate services for government and institutions: Agricultural and food security decision makers in the Ministry of Agriculture and other national and local government agencies and institutions will utilize climate information to respond more effectively to risks.
- Provision of climate information: Meteo-Rwanda will design, deliver, and incorporate user feedback into a growing suite of weather and climate information products and services tailored to the needs of decision makers.

³¹<http://www.mynewswatchtimesng.com/establishing-national-crop-insurance-scheme-fg-insurers-collaboration/>

³²Rwanda is considered a climate vulnerable country with high risk of increased weather extremes such as floods and droughts. In November 2015, the country joined the Vulnerable Twenty (V20), a group of 20 climate vulnerable developing nations that aim to bring attention and increase financing of climate change adaptation and mitigation measures.

³³http://www.minagri.gov.rw/index.php?id=469&tx_ttnews%5Btt_news%5D=1261&cHash=8c7c6e1a6769ab6d4971d0b890cbfb66

- Climate services governance: A national climate services governance process will oversee and foster sustained coproduction, assessment and improvement of climate services.³⁴

3.3 Regional and national responses to El Niño and La Niña

SADC organized a consultative meeting in February 2016 on preparedness and response to the impact of El Niño on agriculture, food and nutrition security in southern Africa. The meeting acknowledged that the El Niño/La Niña phenomena will continue to recur. Hence, the parties agreed on the immediate implementation of a series of short and medium/long-term measures in a collective and coordinated manner to minimize the impacts on communities. This includes providing immediate support to most vulnerable populations; scaling up social protection and safety nets; developing regional resilience monitoring and evaluation frameworks and promoting and scaling up appropriate technologies to adapt and mitigate against climate variability and change.

In June 2016, SADC issued an appeal for the estimated 40 million people in need of assistance in Angola, Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Swaziland, Zambia and Zimbabwe. There is a recognition by the regional body that the recurrent nature of the drought crisis, coupled with the numerous economic and social stressors that exacerbate vulnerability in the southern Africa region, call for a two-pronged approach to assist vulnerable populations. First, the region has to address the most acute humanitarian needs and second, use a multisectoral approach to build the resilience of communities in the region.³⁵

At national levels, with increased awareness of the critical importance of being prepared before the hazard strikes, the governments of the most concerned countries took decisions and put in place or activated mechanisms to manage and coordinate prevention and response in a more timely and effective fashion. Most of them officially declared a state of emergency, which also triggered increased national budget allocations and facilitated enactment and enforcement of legal decisions that impact food security (prohibition of exports, control of price, and restriction in the use of water).³⁶ Some countries activated their existing national disaster management units and/or established ad hoc interministerial,

intersectoral, multistakeholder committees at country and, frequently, at subnational levels. Others developed or updated their contingency, mitigation, adaptation or response plans. The interventions include elements to:

- support national production, for instance through provision/subsidization of inputs, restocking livestock, prevention and mitigation against plant and animal diseases and pests, and promotion of climate-smart agriculture practices;
- increase food imports and adapt national buffer food stocks;
- facilitate/support transport of food within the country and limit exports that might affect food security;
- ensure access to safe drinking water, improve water management and increase water efficiency;
- identify and assist most vulnerable households including through ad hoc or adapted social protection schemes; and
- build resilience so as to reduce the effects and impact of future shocks and of structural, natural or human-made stresses.

a) Angola

Besides the effects of political instability, other forms of violence and civil war, El Niño has also left its mark on Angola. Throughout 2015, drought affected mainly the southern and central provinces and left an estimated 1.4 million people food insecure, with 80 percent of them living in three southern provinces where pastoralist communities are predominant.³⁷ Food prices skyrocketed with an 800 percent increase from January 2015 to January 2016.

In October 2015, the Angolan Government set up an interministerial Drought Emergency Commission, led by the Ministry of Planning, to support emergency efforts. The government has activated the contingency plan for southern Angola with civil protection, agriculture and health authorities working together. In November 2015, an interministerial nutrition rapid assessment was commissioned by the vice-president and undertaken with the support of an NGO. It confirmed critical levels of under-nutrition rates (above 15 percent) in the affected provinces. The government and

³⁴<https://ccafs.cgiar.org/news/media-centre/press-releases/new-program-rwanda-will-transform-agriculture-through-climate#.V1fM7k0aDcs>

³⁵http://www.sadc.int/index.php/download_file/4471

³⁶Botswana, Ethiopia, Lesotho, Madagascar, Malawi, Mozambique, Somalia, Swaziland, Zimbabwe.

³⁷http://reliefweb.int/sites/reliefweb.int/files/resources/1st_rc_situation_report_en_ang.pdf

other partners made great efforts to provide safe water via tankers and staple foods to the most-affected communities. The Ministry of Health started the revitalization of health services, particularly to combat malaria and yellow fever following the severe outbreak that began in December 2015. In March 2016, a government decree prohibited the re-export of imported products (a profitable practice of importers taking advantage of the inflation of the Kwana). As a result of this decree, food availability increased in local markets and contributed to a fall in prices.

Since October 2015, the south and southwestern regions of the country have experienced erratic rainfall, which has disrupted crop development and damaged pasture for livestock. The drought caused by El Niño in 2015/16 follows a fourth consecutive year of crop failure which was also aggravated by a locust plague. Based on a rapid assessment by the Food Security Cluster in March 2016, an estimated 1.14 million people in the south are food insecure, of which 665 000 are severely food insecure.³⁸

b) Madagascar

On 22 March 2016, the government declared a state of emergency for southern Madagascar due to drought. It reviewed and updated the Food Security and Nutrition Contingency Plan, including a review of cluster members' capacity for response (logistics, prepositioning of food stocks, seeds and other inputs). The Ministry of Agriculture provided sorghum seeds as well as cassava and sweet potato cuttings to boost the restart of the crop season in some municipalities.³⁹ The Ministry of Population provided food assistance to 2 000 households in the same municipalities. This humanitarian assistance included 19 tonnes of maize as well as 20 000 bags of fortified food for children.

Due to the deterioration of the humanitarian situation since March 2016, the emergency response began effectively in April 2016. All humanitarian actors jointly developed a 12-month response plan (April 2016 to April 2017) and a recovery plan (*Plan de Relèvement et Résilience face à la sécheresse dans le Grand Sud de Madagascar*) developed, while expecting rains, in order to establish a strong foundation for longer-term and more effective drought mitigation and development measures.

c) Malawi

El Niño and La Niña seriously threatens maize production and food security in Malawi, a country that has shown high commitment to reducing poverty and eliminating hunger over the years through targeted policies and programmes.

In 2015, Malawi experienced heavy floods followed by widespread prolonged dry spells and as a result, for the first time in ten years, maize production decreased by 30 percent, leaving the country with a shortfall of 230 000 tonnes compared to the national needs. According to the Malawi Vulnerability Assessment Committee (MVAC), because of the poor agricultural performance and high food prices, the number of food insecure people has increased in 2016/17 to 6.5 million, up from 2.8 million the previous year.

While the central region has experienced erratic rains since the start of the 2015/16 cropping season (October/June), the south has been hit by severe drought and the north devastated by floods. The first estimates of crop production, released by the Ministry of Agriculture, Irrigation and Water Development, are below those of the previous (2015/16) cropping season, foreshadowing another difficult year in terms of food and nutrition security. Maize production in 2016 is expected to drop by 24 percent compared to the 2014/15 production.

In response, the Malawian President declared a State of National Disaster on 12 April 2016, citing a projected maize deficit of over one million tonnes.⁴⁰ The government is intensifying existing social support services and safety nets such as social cash transfers, income-generating public works programmes, inputs for assets programme, school feeding programme, and the farm input subsidy programme. Because of the lower cereal harvest in 2015, about 100 000 tonnes of maize have been imported from Zambia to boost national supplies.⁴¹

A comprehensive Government Humanitarian Response Plan is being prepared, taking into account the MVAC revised figures. In the 2016/17 Draft Budget, the government has allocated MK35.5 billion for maize purchases, in addition to the expenditure being incurred in the current fiscal year for immediate relief. The parastatal Agricultural Development and Marketing Corporation (ADMARC) continues to supply subsidized maize throughout the country. The Corporation has also intensified the procurement of maize and other commodities, to ensure that they are available at all ADMARC selling points. The government has intensified the promotion of irrigation programmes as one way to address household food deficits in some of the districts.⁴²

d) Ethiopia

Ethiopia is one of the countries that has suffered tremendously from the effects of El Niño, plunging it into limited agricultural production, straining livelihoods and exacerbating food insecurity among poor and vulnerable households. The areas

³⁸<http://www.fao.org/3/a-i5855e.pdf>

³⁹http://reliefweb.int/sites/reliefweb.int/files/resources/MG_OL_2016_02_EN_0.pdf

⁴⁰<http://reliefweb.int/report/malawi/declaration-state-national-disaster-caused-prolonged-dry-spells-during-20152016-season>

⁴¹<http://www.fao.org/giews/countrybrief/country.jsp?code=MWI>

⁴²http://reliefweb.int/sites/reliefweb.int/files/resources/malawi_press_release_mvac_2016.pdf

mostly affected by droughts and floods are the northeast, southeast and southwest of the country. In 2015, Ethiopia was hit by one of the strongest El Niño episodes recorded in history. Severe droughts affected the northeast. In March April 2016, the northeast, southeast and southwest were affected by floods, leading to severe levels of crop loss and livestock mortality and morbidity. An estimated 10.2 million people were in need of food and non-food assistance throughout 2016, up from the 9.2 million in 2015. The government responded with the following actions:

- An amount of US\$22 million was allocated for emergency seed support for the *meher* season (summer) for all affected regions. Furthermore, more than US\$75 million has been committed by the government to livestock interventions (emergency livestock feed and animal health campaigns, including vaccination and treatment, fodder and supplementary feed, destocking and water access support).
- The National Disaster Risk Management Commission (NDRMC), in collaboration with WFP, is assisting 7.6 million people with food sourced from both the government and WFP.
- The government has significantly increased commercial imports of wheat since the end of 2015. After having imported about 1.3 million tonnes in 2015, wheat imports forecast for the 2016 marketing year are as high as 1.5 million tonnes. This figure compares with an average of less than 600 000 tonnes of wheat commercially imported before the current El Niño crisis was induced, and is well above the quantity of about 750 000 tonnes of wheat imported in 2011 during the last drought in the Horn of Africa.⁴³ The government also established an Emergency Food Security Reserve Administration, which provides a short-term buffer stock of emergency response commodities and items on loan to agencies involved in relief activities (the government, UN agencies or NGOs) until they can mobilize replacement resources through other mechanisms.⁴⁴ In addition, improved early warning systems and serious engagements by the Ethiopian Government have helped to mitigate the impact of El Niño.

e) Mozambique

El Niño has left its toll on the country through droughts and floods that affect the north. On 12 April 2016, the government activated the Institutional Red Alert (the highest level of

disaster) for a period of three months in the provinces affected by drought in central and southern Mozambique. The activation of this alert level will trigger additional allocation of funds from the government, intensify the response and monitoring activities on the ground and represent a request for additional support from cooperation partners. The government announced an allocation of US\$6.7 million for drought response under the contingency plan.⁴⁵ This contingency plan includes a varied set of measures to prevent, mitigate and respond to the current crisis, such as disseminating forecast and adaptation messages; distributing improved seeds and conducting animal disease surveillance; improving water access for people and cattle and allocating resources for positioning and response.

As part of the contingency plan, the government and the humanitarian community are responding to the current situation by providing agricultural support for livestock and horticulture production as well as food assistance to the most vulnerable households (nearly 300 000 people received support up to March 2016). The government is also coordinating the humanitarian WASH response in partnership with UNICEF to provide access to safe drinking water to populations impacted by drought. Interventions include the rehabilitation of existing community water points and upgrading water points to increase water quantity and storage capacity, drilling of new deep boreholes where groundwater tables have dropped, trucking water to the most affected communities, distribution of locally produced chlorine solution (Certeza) and testing community-based desalination in areas with high salinity groundwater.

f) Zimbabwe

Like most countries in the southern Africa subregion, the 2015/16 agricultural season in Zimbabwe was seriously affected by the worst El Niño-induced drought in 35 years. In Zimbabwe, the situation was worsened by a series of other factors. The preceding agricultural season was poor, and saw cereal production declining by 43 percent compared to the five-year average. Many households had had their coping capacities depleted due to a prolonged economic crisis, which made them more vulnerable to shocks. Furthermore, the national economy had been impacted by critical cash shortages and high unemployment rates. The country is estimated to have a cereal deficit of 900 000 tonnes (56 percent of the national human cereal requirement). As of June 2016, FAO and partners estimated that over 4.1 million people⁴⁶ – about 40 percent of the rural population – would face food insecurity at the peak of the lean season in late 2016 and early 2017 because of the drought.

⁴³<http://www.fao.org/giews/countrybrief/country.jsp?code=ETH>

⁴⁴http://reliefweb.int/sites/reliefweb.int/files/resources/ethiopia__synopsis_of_hrd_2016__as_presented_in_geneva_7_december.pdf

⁴⁵http://reliefweb.int/sites/reliefweb.int/files/resources/Mozambique-UNRCO-Situation%20Report%203_Drought_Final.pdf

⁴⁶Figures are preliminary, pending country validation.

Against this background, the government declared a national disaster in early February 2016, appealing for US\$1.5 billion to fulfil immediate and short-term needs in order to address the impact of the drought. Because of the drought, the area planted with cereals was reduced by 65 percent, demand for casual labour for planting and weeding (a key income source for vulnerable rural populations) was reduced significantly, and this in turn affected the livelihoods and food security of many rural households. Furthermore, increased livestock morbidity and mortality was reported – more than 23 000 livestock deaths have been reported in the drier parts of the country. Finally, eroded productive capacity of vulnerable farming households and increased food prices have led to an increase in food and nutrition insecurity. The average national maize grain price for FEWSNET sentinel markets in May 2016 (US\$0.42/kg) was 17 percent higher than it was at the same time the previous year and 24 percent above the five-year average.⁴⁷

In response, the government set up a Cabinet Committee on Emergency Response to the El Niño-induced Drought Disaster, which is chaired by one of the two vice-presidents. The Committee is mandated to coordinate responses to meet immediate and medium-term responses to the drought. Under the Cabinet Committee, there are sector platforms led by line ministries and supported by the UN system and NGOs. As of June 2016, agriculture and food security sector needs were estimated at US\$753 million (about 75 percent of the total needs) with a collective total of US\$48 million (5 percent) having been raised. The focus of the interventions in the food and nutrition sector includes:

- food assistance, access to agricultural inputs through market-based approaches, promotion of CSA and related capacity-building for extension staff and beneficiary households;
- protection and enhancement of livestock production through provision of vaccines against key livestock diseases and access to subsidized survival feed;
- increased access to water through improved water infrastructure;
- information, coordination and analysis focusing on coordination, early warning and food security and vulnerability mapping.

⁴⁷FEWSNET <http://www.fews.net/southern-africa/zimbabwe/food-security-outlook/july-2016>

3.4 Investing in resilience to support peace-building efforts

Combining efforts to restore and support resilient livelihoods with peace-building and conflict resolution efforts is critical to sustainable development and food security and nutrition. Equally, investing in food security and agriculture may strengthen efforts to prevent conflict and achieve sustained peace.⁴⁸

The African Union Commission (AUC) considers climate change and shocks such as El Niño serious threats to peace, growth and shared prosperity. At its meeting on 19 November 2015, the Peace and Security Council of the AU held a specific session on “The impact of El Niño on Peace, Security and Stability in Africa and the Humanitarian Consequences”, during which it called on Member States and partners to accelerate efforts to address immediate needs and “ensure a credible disaster risk reduction preparedness and resilience capacity”. AU leaders delivered a similar message on various other occasions. The Council underscored the need for monitoring household food security and market conditions in order to ensure an effective humanitarian response. Furthermore, the Council appealed to those Member States that are in a position to do so, as well as to the humanitarian aid organizations, the African private sector and the rest of the international community, to enhance their support to the affected countries in their efforts to alleviate the effects of El Niño.⁴⁹

The following sections are illustrative of the crisis situations in the Central African Republic, Lake Chad basin, Mali, Somalia and South Sudan.

a) The Lake Chad crisis

The Lake Chad Basin, a semi-arid hydrological system in West Central Africa, comprising significant parts of Cameroon, Chad, Niger and Nigeria, is one of the poorest and most drought-prone regions of the world. Described by the World Bank as “a productive yet poor and vulnerable socio-ecosystem”, Lake Chad Basin is a dynamic region, home to some 50 million inhabitants.⁵⁰ Since 2011, a militant insurgent group in Nigeria, operating in the northeastern states of Yobe, Adamawa and Borno, has been carrying out armed attacks on civilian populations in the country. The crisis in the northeastern part of Nigeria has been spreading and turning into a regional crisis affecting Cameroon, Chad and Niger as well. The humanitarian crisis is characterized by massive displacements,

⁴⁸FAO, Peace and food security (www.fao.org)

⁴⁹<http://www.peaceau.org/en/article/psc-558th-meeting-on-the-theme-the-impact-of-el-nino-on-peace-security-and-stability-in-africa-and-the-humanitarian-consequences>

⁵⁰<http://documents.wfp.org/stellent/groups/public/documents/ena/wfp284135.pdf>

with more than 2.5 million Internally Displaced People (IDPs), food insecurity and incidents of civil conflict. Violence continues to displace people in these countries. In communities hosting IDPs, refugees and returnees, the presence of additional families is straining local resources and exacerbating food insecurity, relief commodity, shelter, livelihood and protection needs among others (USAID, 2015).

Nigeria is the country most affected by this violence, and since 2009, nearly 15 million people have been impacted by the violence of Jama'atu Ahlis Sunna Lidda'awati Wal-Jihad, popularly known as Boko Haram (BH), and the resulting military operations. The conflict has become particularly intense since 2014, leading to the loss of an estimated 20 000 lives and the displacement of nearly 2 million people. On 21 August 2015, the Nigerian Government requested assistance in assessing the needs associated with peace-building and crisis recovery. This support has been provided in accordance with the 2008 Joint EU-UN-WB Declaration on crisis assessment and recovery planning. The infrastructure and social services interventions are estimated at US\$5.8 billion. The highest needs are for the reconstruction of houses (US\$1.2 billion), followed by agriculture (US\$881 million) and education (US\$721 million). The "Harmonised Framework" analysis conducted in March 2016 concluded that a total of 3 024 239 people across Borno, Yobe and Adamawa will be in a crisis to emergency food situation.

The government is leading the response to the humanitarian needs in the affected states through the National Emergency Management Agency (NEMA) in providing both food and non-food items. These include the release of 10 000 tonnes of assorted food items from the Strategic Grains Reserve for distribution to IDPs in the northeast and the distribution of food vouchers to IDPs and their host families in Adamawa, Borno and Yobe states (1 000 households per state). With improvements in the security situation, the state governments have also embarked on the distribution of seeds and agricultural inputs to enable returning IDPs and those with access to land to embark on growing their own food. For this purpose, seeds of cowpeas, maize, sorghum and rice as well as related training were provided to households in the affected areas. Furthermore, households were provided with off-season vegetable inputs to support nutrition and income generation. The government and other partners are providing support to affected populations to develop alternative livelihoods such as food processing using grinding equipment, groundnut oil extraction, local spaghetti making, cake-making and skills development for tailoring, cap-making and knitting.

In Niger, agricultural inputs (cowpea and wheat seeds) as well as animal health supplies (18 900 doses of vaccines) were provided to 4800 households. In Cameroon, 4500 returnee households were provided inputs for the production of cowpea, maize and sorghum. In addition, support is being provided to diversify agricultural production by assisting some of the vulnerable population groups described above through assistance in animal production.

Thus, across the affected countries, there is recognition that livelihoods should not only be saved but also diversified to make them more resilient, alongside efforts to respond to immediate food needs. In May 2016, UNHCR/WB organized a workshop in Dakar as part of the joint regional assessment of the impact of forced displacement in the Lake Chad Basin. The joint assessment analysed the forced displacement and development nexus, assessed the impact of refugee presence on hosting areas and communities and mapped innovative ongoing interventions. It identified potential areas for programmatic responses in the four Lake Chad Basin countries affected by the crisis and developed practical operational recommendations for ongoing and future operations.

In June 2016, the governments of Cameroon, Chad, Niger and Nigeria, with the technical facilitation of the Office of the United Nations High Commissioner for Refugees (UNHCR), held a Regional Protection Dialogue on the Lake Chad Basin to discuss the most urgent protection risks in the area resulting from the conflict-induced crisis. They agreed on comprehensive action to enhance protection and respond to the most urgent needs of refugees, IDPs and other affected populations and enhance regional coordination and the exchange of best practices through greater engagement by state and humanitarian actors, as well as regional institutions such as the Multinational Joint Task Force (MNJTF), the Lake Chad Basin Commission, the Economic Community of West African States (ECOWAS) and the Economic Community of Central African States (ECCAS). The UN is also appealing for US\$200 million to address the immediate food security and nutrition challenges facing affected populations.

b) Central African Republic (CAR)

Since 2012, the Central African Republic has been undergoing a politico-military conflict that caused the displacement of 901 061 persons, out of which 415 256 are IDPs.⁵¹ Refugees from the Central African Republic have also been identified in Cameroon (274 090), Chad (66 909), Congo (28 639) and Democratic Republic of the Congo (112 785). However, the number of displaced persons is decreasing due the return

⁵¹As of end of May 2016 according to CMP

of some IDPs to their homes. Some hotspots remain, like the M'poko site near Bangui Airport, where there are still at least 3000 IDPs. Insecurity remains high in the areas of Ouham, Ouham Pendé, Nana-Mambéré and particularly in Batangafo. Assessments conducted by the Food Security Cluster – co-led by FAO and WFP – indicate an alarming deterioration of the food security situation over the past year. Compared with pre-crisis levels, cereal production has declined by 70 percent, fisheries output by 40 percent, and cattle population by 46 percent. Production of cotton and coffee – two key cash crops – is estimated to be 42 and 28 percent respectively lower than pre-crisis levels.

Concerns have been raised over the 2016 cropping season due to protracted and widespread insecurity, which will require strong livelihood support. During the 2015 agricultural season, 170 900 households were assisted with seeds and tools, in addition to seed protection rations. Crop production recovered slightly in 2015 from a sharply-reduced 2014 output, but still remains 54 percent below pre-crisis average. Food access is severely constrained by destroyed livelihoods, reduced local production, sharply curtailed market activity and high food prices. The government is leading various coordination platforms, including a multistakeholder working group on sustainable solutions and reintegration of displaced persons in the Central African Republic. Ongoing support to crop production has helped mitigate the negative impact of the crisis on food production.

c) Mali

Alongside vulnerabilities induced by climatic hazards, conflict has disrupted agriculture and economic activities in northern Mali through population displacement, lack of agricultural support services, fragmentation of the markets and other difficulties related to civil security that have had serious negative impacts on agricultural production and food markets. As a result, much of the population requires food and non-food assistance, including agricultural support to restore livelihoods and increase access to food and agricultural inputs and services.

The government has not yet finalized its strategy for the development of the North or the national emergency plan. As a result, the outcomes of the international conference for the economic recovery and development of Mali, held in Paris in October 2015, has not yet translated into tangible results. Mali's partners had pledged \$3.6 billion for the period 2015–2017, including US\$722 million for the North.⁵² The ongoing activities of various partners are aimed at

promoting food availability through food aid to IDPs and vulnerable people; restoring and strengthening their livelihoods through support to agriculture, livestock and fisheries; and improving coordination at regional and national levels.

d) South Sudan

South Sudan has been nearly continuously subject to conflict since the 1950s. In global rankings of conflict events, South Sudan is ranked sixth, making it one of the most violence-prone countries in the world. Most of these conflicts are associated with issues related to governance, but also with natural resources.

The most recent protracted crisis that unravelled after internal conflicts broke out in December 2013 greatly affected household and community capacity for resilience. A rapid disruption of livelihoods occurred in the most conflict-affected areas, with severe depletion and loss of productive assets and massive displacement. Livestock have been looted or killed or have died from diseases, crops destroyed, planting delayed and cultivated area reduced due to insecurity and lack of labour in remote rural areas. Livestock and cattle play a critical role in the dynamics of conflict, as they become immediate targets as well as valuable resources for sustaining conflict. Since the latest conflict between the government and the opposition, the dynamics of cattle-raiding have changed both in scope and in magnitude, involving, in many cases, loss of human life and the deliberate destruction of assets. Subsequent raids carried out in revenge have trapped different communities in a web of continuous animosity, odium and fear. In the process, livestock resources, which should function as suppliers of household food and social security, have become liabilities for which communities are killed, harmed and robbed of their assets.⁵³

Improved capacities of local and national institutions to manage conflict over natural resources, climate-related hazards and animal disease is at the centre of transformational change for peace building and stability. In this respect, the South Sudan Development Plan (SSDP), covering 2011 to 2016, was designed as the plan for the new nation to address core development and state building agendas. Its vision of "realizing freedom, equality, justice, peace and prosperity for all" contains elements of a multidimensional and integrated resilience-building agenda. This includes the following four pillars: (i) improving governance; (ii) achieving rapid rural transformation; (iii) improving and expanding health services; and (iv) deepening peace-building and improving security. Since 2011, FAO has been supporting the government in

⁵²Report of the Secretary-General on the situation in Mali, Security Council, 31 May 2016.

⁵³FAO, 2016 – South Sudan Resilience Strategy, 2016-2018

the formulation and implementation of sectoral development plans such as the Agriculture Sector Policy Framework (2013–2015), the Ministry of Animal Resources Policy Framework (2012–2016), the National Agriculture and Livestock Extension Policy and the Comprehensive Agricultural Master Plan (2015–2040).

e) Somalia

In Somalia, security remains one of the biggest challenges. Internal conflicts have prevailed across most areas of the country for more than two decades, influenced primarily by regional and global political agendas. At present, conflict prevails in southern Somalia, where the forces of the Federal Government of Somalia, assisted by African Union peacekeeping troops, are fighting against various militant Islamist groups. The fighting has claimed the lives of more than 10 000 people and forced hundreds of thousands to flee the capital. Most of the population has lived with chronic insecurity in which acts of politically-driven war, armed criminality and communal violence are often indistinguishable.⁵⁴ While Somalia continues to be on a positive trajectory, resurgent conflict and endemic environmental hazards render many of the nation's estimated 12.3 million people chronically or acutely vulnerable. Armed fighting is prevalent in large parts of the country and continues to cause significant physical and psychological harm to civilians, as well as displacement and deprivation of basic services. Natural hazards and disasters are endemic in Somalia and affect hundreds of thousands of people every year.⁵⁵

The 2016–2018 three-year humanitarian strategy seeks to mitigate the threat of food insecurity, malnutrition, disease, displacement and human rights violations by prioritizing saving lives and strengthening livelihood support to reduce persistent vulnerabilities and acute suffering. Pastoralism

and agropastoralism are the country's main livelihood systems. As in other areas of the Horn of Africa, livestock mobility restrictions, demographic pressures and encroachment on pastureland are among the key drivers of escalating conflicts over pasture and water sources (FAO Somalia, 2015a). Agriculture, an important economic activity in Somalia, meets the cereal needs of roughly 50 percent of the population and generates income for farmers through crop sales and agricultural market opportunities. The history of protracted conflict and lack of effective governance and law and order, especially in southern and central Somalia, have negatively impacted livelihoods. They undermine economic access to food, for example, through the diminution of financial assets, and limit physical access to food sources such as markets because of the presence of conflict frontlines or roadblocks.

On 16 September 2013, the Federal Government of Somalia and the EU hosted a conference in Brussels to endorse the New Deal referred to as the "Somali Compact". The Compact promised "a new political, security and development architecture framing the future relations between Somalia, its people and the international community". The Compact determines the priorities of the Federal Government of Somalia for 2013–2016. One of these priorities is the revitalization and expansion of the Somali economy with a focus on livelihood enhancement, employment generation and broad-based inclusive growth.

Somalia is developing a National Development Plan (NDP) which will cover the fiscal period 2017–2019. Among other benchmarks, one of the measurable outputs of the NDP is to achieve more resilient communities that can withstand internal and external "shocks", including cyclical droughts and other natural disasters.

⁵⁴Evaluation of FAO's sub resilience programme in Somalia 2013-2014, final report, November 2015, FAO

⁵⁵2016-2018 Somalia humanitarian strategy



Photo Credit: ©FAO/Isaac Kasamani

Promoting nutrition-sensitive agricultural diversification to fight malnutrition and enhance youth employment opportunities in eastern Africa.

Table 1: Average prevalence of severe food insecurity based on the FIES in 2014/15

Regions/subregions	Prevalence of severe food insecurity	Estimated number (N1)	Estimated number (N2)
	Percent	(000)	(000)
World	7.51 (± 0.32)	405 570 (±17 122)	664 729 (± 24 511)
Developed regions	1.47 (±0.10)	15 491 (±1 081)	21 103 (± 1 294)
Developing regions	8.98 (±0.39)	390 079 (±17 088)	643 626 (±23 802)
Least dev-countries	20.55 (±0.55)	116 128 (±3 107)	209 173 (± 5 184)
Sub-Saharan Africa	25.74 (±0.64)	153 217 (± 3 789)	280 133 (± 6 629)
Eastern Africa	27.73 (±0.73)	61 870 (± 1 630)	116 715 (± 2 882)
Middle Africa	31.27 (±1.68)	25 928 (± 1 392)	48 421 (± 2 550)
Southern Africa	20.40 (±1.17)	13 660 (± 786)	21 623 (± 1 193)
Western Africa	23.04 (±1.48)	45 701 (± 2 943)	82 295 (± 5 240)
Northern Africa	9.23 (±0.73)	14 029 (± 1 112)	22 644 (± 1 639)
Latin America	4.88 (±0.22)	21 423 (± 969)	33 210 (± 1 305)
Caucasus and C-Asia	1.73 (±0.25)	1 058 (± 153)	1 546 (± 210)
Eastern Asia	0.51 (±0.17)	6 187 (± 2 023)	8 279 (± 2 442)
E-Asia exc- China	0.92 (±0.23)	667 (± 169)	761 (± 202)
Southern Asia	12.44 (±1.26)	159 736 (±16 108)	246 576 (± 22 865)
S-Asia exc- India	12.61 (±0.94)	44 206 (± 3 305)	70 205 (± 4 825)
S-E Asia	5.12 (±0.73)	23 808 (± 3 405)	35 531 (± 4 636)
Western Asia	9.74 (±0.55)	15 565 (± 874)	24 780 (± 1 265)

Source: FAO, Voices of Hungry Project, 2016

Table Notes

(± MoE): Expected margin of uncertainty, reflecting both measurement and sampling uncertainty.

Prevalence of severe food insecurity: Refers to the proportion of individuals in the population of 15 years of age or more.

N1: Estimate of the number of people aged 15 or more who have experienced the condition.

N2: Estimate of the total number of individuals (including children less than 15 years old) who have been affected by food insecurity because they lived in households where at least one adult had been experiencing the condition.

REGIONAL OVERVIEW OF FOOD SECURITY AND NUTRITION THE CHALLENGES OF BUILDING RESILIENCE TO SHOCKS AND STRESSES

KEY MESSAGES

- ▶ A recent assessment of food insecurity through the lenses of “hunger experience” reveals that 153 million individuals, about 26 percent of the population above 15 years of age in sub-Saharan Africa, suffered from severe food insecurity in 2014/15. In other words, one out of four individuals above 15 years of age in the region, on average, was “hungry but did not eat or went without eating for a whole day because there was not enough money or other resources for food”. These numbers underline the significance of the challenge facing the region in meeting SDGs target 2.1 and the relevance of sustainable and substantial support to food security and nutrition policies and programmes in the region.
- ▶ On aggregate, sub-Saharan Africa achieved adequate food availability over the 2014–2016 period with its Dietary Energy Supply (DES) of 111. However, several countries in the region remain highly dependent on food imports to ensure adequate food supplies, with some subregions depending on imports to fill up to a third of their cereal needs. This suggests that substantial demand for food exists for these countries, and there is a need to increase agricultural productivity, food production and value addition, among other things, to satisfy it.
- ▶ The average per capita income was three times lower in sub-Saharan Africa than it was in other regions of the world in 2014, although it witnessed a 30 percent increase between 1990 and 2014. Poverty levels declined in the region but remained the highest in the world relatively, and the region is far from halving the proportion of people living in poverty. Efforts must be made to spur a broad-based economic transformation, particularly in the agricultural sector, – which is the major source of income in sub-Saharan Africa – to generate substantive reduction in poverty and improve food accessibility.
- ▶ Even though some progress is being made in reducing malnutrition, evidence shows that the region suffers from the triple burden of malnutrition, undernutrition, and overweight/obesity coupled with rising levels of non-communicable diseases and micronutrient (vitamins and minerals) deficiencies. An increased number of comprehensive social protection policy frameworks and institutional arrangements have been introduced in the region to integrate nutrition and agriculture. Countries are encouraged to adopt multisectoral and multidisciplinary approaches in integrating agriculture, nutrition, social protection and related measures by realigning, integrating and coordinating activities and accountability mechanisms to deliver evidence-based sustainable nutrition solutions and outcomes.
- ▶ Some of the main causes of food insecurity and malnutrition in the region are associated with unstable food markets and commodity prices and natural disasters, including severe droughts and floods, leading to failed crops, insufficient pasture feed and water for livestock, and persistent political instability, conflicts and other forms of violence.
- ▶ In general, several policy commitments and strategies documented in this report are yet to generate the expected results. Coincidentally, many country experiences illustrate the feasibility of the right combination of cross-sectorial policies and programmes towards eliminating hunger and malnutrition. Countries in the region need to clearly review and exert effort in order to improve the translation of political commitments and declarations into effective programmes on the ground, particularly in the context of the ambitious targets set in the Malabo Declaration for 2025 and the Sustainable Development Agenda for 2030.
- ▶ Continued policy reforms to sharpen their focus and the creation of an enabling environment for investment and participation by all relevant stakeholders is critical to ending hunger, thus achieving food security and nutrition. Specifically, development of innovative resource mobilization from a broad set of public and private sector actors and financial instruments is essential if actions are to be implemented in a sustained and widespread manner to scale up food security and nutrition programmes in sub-Saharan Africa.
- ▶ As the magnitude and impact of crises and disasters increase – aggravated by the overexploitation of natural resources and climate change – more and more households, communities and governments in the region are less able to absorb, recover and adapt, making them increasingly vulnerable to future shocks. Governments must intensify their efforts to ensure that years of gradual agricultural development gains are not wiped out by recurrent shocks. Increasing the resilience of agricultural livelihoods and promoting and financing CSA practices would be a powerful lever to reach the pledge of the Sustainable Development Goals “to leave no one behind”.
- ▶ The impact of the El Niño and La Niña phenomena in 2014/15 has been one of the most intense and widespread in the past 100 years. The agriculture, food security and nutritional status of more than 60 million people in Africa have been affected by droughts and floods. Therefore, immediate short, medium and long-term measures are needed to promote and scale up appropriate technologies to adapt and mitigate climate variability and change, to develop resilience monitoring and evaluation frameworks, and to minimize the impacts on affected communities.
- ▶ Building resilience through peace-building efforts is critical to food security and nutrition. In armed conflict and protracted crises, protecting, saving and rebuilding agricultural livelihoods to save lives and create the conditions for longer-term resilience is a key step towards ensuring peace and stability. The critical role of the agriculture sector in crisis situations must not be overlooked and necessary investments need to be made.

