Ending Hunger in Africa

Executive Summary

THE ELIMINATION OF HUNGER AND FOOD INSECURITY ON THE AFRICAN CONTINENT BY 2025

- Conditions for Success -

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EXECUTIVE SUMMARY

The African Union has set a target to "eliminate hunger and food insecurity by 2025." Both Agenda 2063 and the African Union Summit decision on Accelerated Agricultural Growth and Transformation have reaffirmed this commitment (African Union, 2014, 2015). Unfortunately, Africa is not currently on track to meet these targets. Immediate, mutually reinforcing interventions are required to bring the continent closer to eliminating hunger and food insecurity.

The purposes of this report are (1) to describe the path that Africa has been on with respect to reducing hunger and pursuing food security, (2) to show where that path would likely lead in the coming years without significant change in policy, and (3) to outline the conditions and actions necessary to put Africa on track to eliminating hunger and food insecurity as soon as possible.

The Food and Agricultural Organization of the United Nations (FAO) defines hunger, or undernourishment, as an inability to acquire enough food to satisfy dietary energy requirements. Food security is a situation where all people at all times have access to food and is composed of four dimensions: food availability, economic and physical access to food, food utilization, and stability over time. This report will mainly focus on the prevalence of undernourishment and net dependence on imports as the two indicators of hunger and food security, respectively.[1]

Nearly one in five people living in Africa is hungry.[2] That rate has decreased steadily since the mid-1990s, with the fastest decline in West Africa and the lowest undernourishment rate in Northern Africa. Unfortunately, the total number of undernourished Africans has climbed since 1991, largely driven by increasing population. East Africa has the highest levels of hunger in terms of both prevalence and absolute numbers - about half of the total undernourished population of the continent is in its Eastern region.

On the supply side, Africa was not producing enough food to feed its own population adequately in the early 1990s, but its exports and imports of agricultural goods were both relatively small and in balance. Imports have since grown to be over four times the level of exports (in tons), and net imports are now about 14 percent of total agricultural demand.

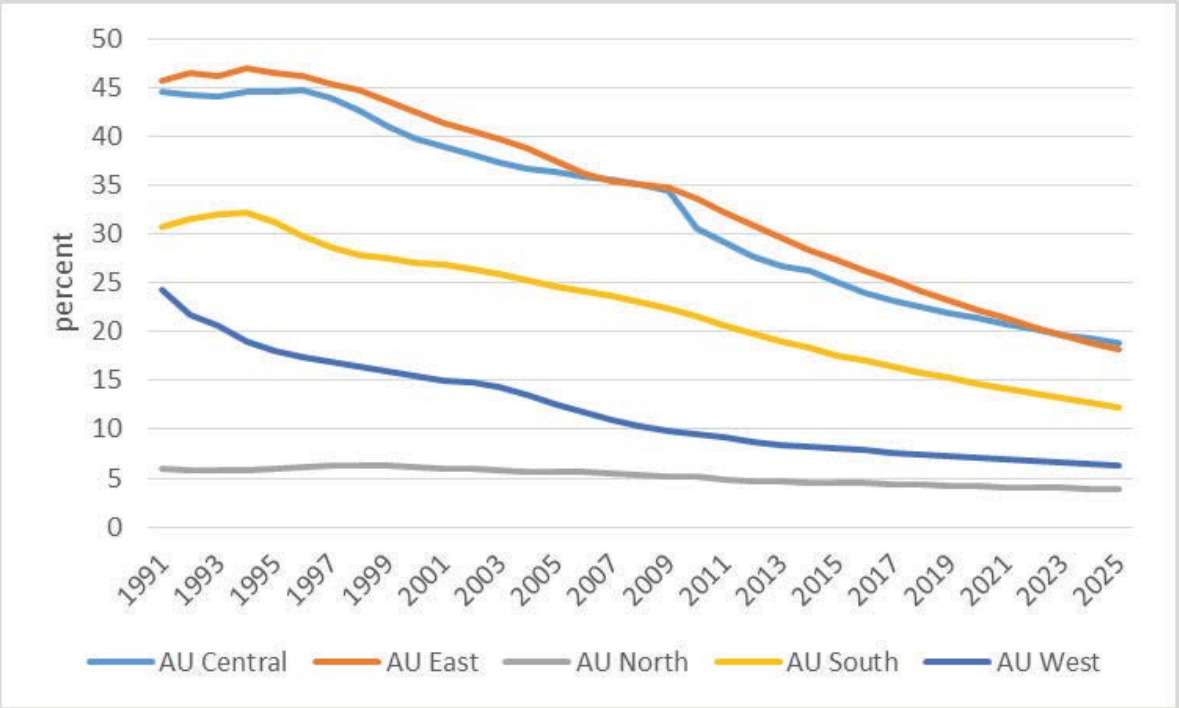
To analyze whether or not Africa is on track to eliminate hunger and food insecurity by 2025, this research uses the International Futures (IFs) forecasting system. IFs, and this research, draws heavily on data from the FAO and other international sources. The Base Case scenario of IFs considers historical patterns to explore the dynamic future path of Africa.

Looking at the path going forward, without substantial change in the dynamics of demand and supply, the portion of Africans who are undernourished will fall from about 17 percent in 2015 to about 12 percent in 2025. Over the same period, the import dependence of Africa will rise from 14 percent of total demand to 25 percent. Africa is not on track to eliminate hunger and food insecurity by 2025.

1. Special attention is paid to the prevalence of underweight children in Africa in appendix 3.

2. All references to "Africa" in this paper refer only to African countries in the African Union, unless otherwise noted.

Figure Summary 1: *Undernourished people as a percent of total population for regions in Africa.*

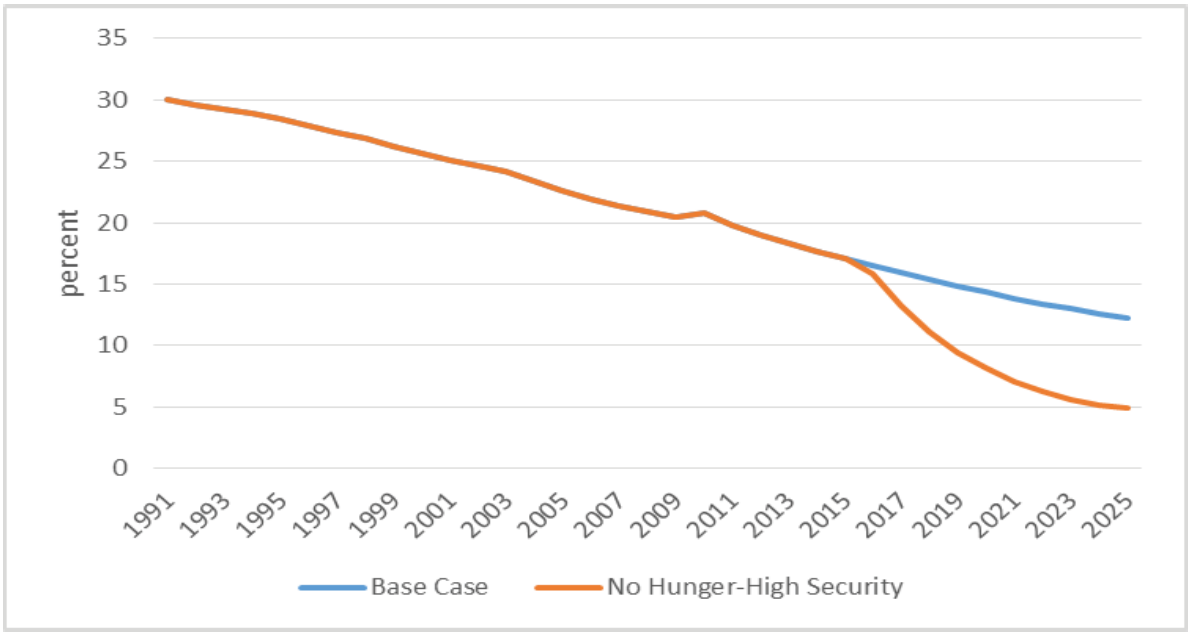


Source IFs version 7.19, decrease in Central Africa due to lack of data for the Democratic Republic of the Congo. Interpolation used to fill some data holes.

How can the goals of Agenda 2063 and the Malabo Declaration be met? Where is the greatest leverage to solve these problems? The short answer is that the challenge is very great and requires a wide range of actions by many different actors.

To determine the conditions and actions necessary to eliminate hunger and food insecurity by 2025, this paper presents a No Hunger-High Security scenario. In this scenario, food access increases to the levels required by 2025 to reduce hunger to below 5 percent on the continent. At the same time, African food production increases in this scenario to the levels required to meet this demand and to reduce import dependence.

Figure Summary 2: The malnourished portion of African population, Base Case and No Hunger-High Security scenarios



Source: IFs version 7.19. Interpolation used to fill some data holes.

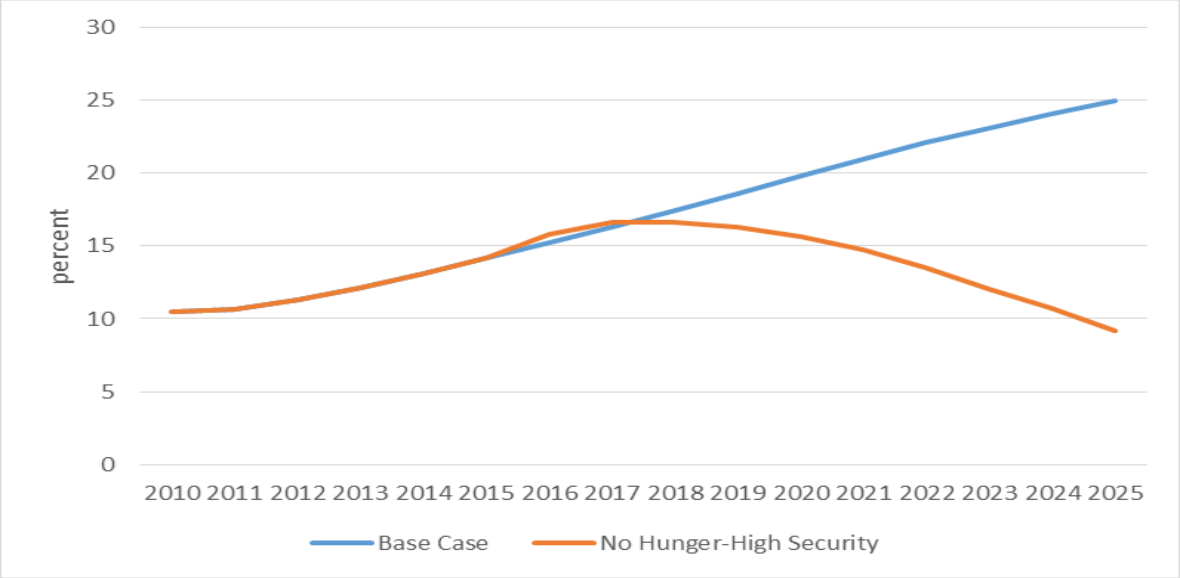
Average calorie consumption per capita per day would need to be about 18 percent higher than it was in 2015 to eliminate hunger without considerable redistribution of consumption patterns. To put such changes in context, China increased calories per capita per day by 17 percent in the 10 years between 1980 and 1990 and went on to increase it 12 percent more by 2000.

This increase in calorie consumption would require that effective food demand increase by 473 million metric tons (mmt) by 2025, or 47 percent of current (2015) demand. To meet this increased demand, while simultaneously decreasing net imports, agricultural production in Africa will need to increase by 525 million metric tons and loss will need to decrease significantly.[3] This change in production would be 38 percent above the forecasted levels in 2025, or 61 percent above 2015 levels. This level of production is not impossible, but it will require an expansion of cropland and extraordinary improvements in crop yields similar to the Green Revolution in Asia in the 1960s and 1970s.

In the No Hunger-High Security scenario, cropland increases by 1.5 percent per year, and crop yields increase by 3.2 percent per year, compared to historical rates between 2001 and 2011 of 1.4 percent and 1.9 percent, respectively. This would require expanding cropland by 39 million hectares, about the size of Zimbabwe. Further, as incomes and calorie intakes rise, there will be progressive change in the type of food desired, for instance, from cereals and vegetables to meat and fish. Livestock herd size would also need to grow by at least 5.8 percent each year.

To put such changes in context, during the Green Revolution yields grew in India by 3.6 percent annually between 1980 and 2000, and cropland in Brazil expanded by 2 percent annually between 1961 and 2010 as it utilized land from both the rain forests and the Cerrado (the Brazilian Savanna).

Thus on the supply side, Africa could produce enough food to meet no-hunger level needs by 2025 with very aggressive increases in food production through increased yields and land expansion similar to those experienced by Asian and Latin America countries during the Green Revolution, along with aggressive reductions in food loss. This level of production can also reduce net reliance on imports.



Source: IFs version 7.19.

On the demand side however, it will be very difficult for Africa to create the effective demand necessary for a no-hunger future without measures to supplement increases in average calorie

consumption. For example, caloric-intake levels associated with eliminating hunger have historically required levels of GDP per capita about three times as high as the African average. While increases in agricultural production contributed to the reduction of hunger in China, India, and Viet Nam since 1990, all three of these countries at least tripled their GDP per capita over the same time horizon (China's increased by nearly 800% from 1990 to 2015). Increased production alone is not enough to eliminate hunger and food insecurity: the hungry must have access to the food.

Increasing levels of access to food can come from interventions aimed at producers or consumers. Targeted food subsidy programs including conditional transfers could help direct food toward the undernourished and assist in increasing access. On the production side, helping farmers overcome both hard constraints like poor soil quality and low rainfall, and soft constraints like limited financial and human capital and access to information and markets could increase food production and reduce its price. Because 95 percent of Sub-Saharan African (SSA) farms are smaller than five hectares and they collectively utilize most of the land, agricultural interventions would need to support not just larger-scale farms, but also small-scale, subsistence farmers (Lowder, Skoet, & Singh, 2014).

This analysis suggests that it is theoretically possible, but practically will be extremely difficult, for a No Hunger-High Security scenario to provide the food access and availability to meet the goals.

There are of course great uncertainties that extend beyond the policy environment. For instance, climate change could put downward pressure on yields and water resources. Most such pressure will occur later in the century, but by 2025, the continental-wide impact of climate change on crop yields relative to 1990 will generate a net cumulative drag on production of 2.5 percent.

This report measures the magnitude of the challenge of eliminating hunger and ensuring universal food security by 2025 and outlines the conditions necessary to overcome that challenge. The expertise, resolve, and commitment of policymakers must generate the action. Implementing the policies necessary to achieve the goals of the AU will also require expertise that goes beyond the forecasting of this report. Further, the best policies to increase production and access will differ by region and country.

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