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Item 4 of the provisional agenda^{*} **Progress in the implementation of the regional integration and trade programme**

Status of food security in Africa

I. Introduction

A. Background and rationale

1. On 25 September 2015, countries around the world adopted the Sustainable Development Goals, which are aimed at ensuring prosperity for all, while protecting the planet. They replaced the Millennium Development Goals, which had been adopted in 2000. The Sustainable Development Goals consist of 17 Goals and 169 targets. Goals 1 and 2 address, respectively, the interrelated issues of: (a) ending poverty in all its forms everywhere; and (b) ending hunger, achieving food security and improved nutrition and promoting sustainable agriculture by 2030. Target 2.1 of Goal 2 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".

2. At the African Union summit held in Malabo in June 2014, leaders committed themselves to eradicating hunger on the continent with the adoption of the Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods. Under this Declaration, African Heads of State and Government pledged to end hunger by the year 2025 and reduce stunting and underweight to 10 and 5 per cent, respectively, by at least doubling current agricultural productivity levels, tripling intra-Africa trade in agricultural commodities and reducing post-harvest.

3. Given the fact that food and nutrition security is the foundation of survival, health and economic sustainability and that its implementation requires a multisectoral, holistic approach, realizing food and nutrition security is a prerequisite to achieving all the Sustainable Development Goals. Investing in food and nutrition is therefore politically, economically, socially and ethically justified.

B. Objective

4. The overall objective of the present report is to provide evidence to African policymakers on the status of food and nutrition security through a data-driven analysis of the region's recent progress. It is hoped that awareness will be raised on the urgency of rethinking strategies to achieve food and nutrition security, given the present state of hunger and the renewed and bold commitments made to eradicate

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hunger and substantially reduce child undernutrition in Africa by 2025 and 2030, respectively.

5. Specifically, the report presents an updated review of the status of food and nutrition security in Africa based on a concise analysis using the most recent and available data and research results and findings. It further highlights some of the emerging issues regarded as opportunities with a high potential to enhance food and nutrition security in Africa.

C. Structure and organization

6. The first section of the report provides a justification for the report and an outline of its purpose. The second section provides an updated review of the status of food and nutrition security in Africa. It presents trends and changes in each of the four dimensions of food security. Section three highlights two recent developments that could readily drive food security in Africa, if well developed and implemented: the Continental Free Trade Area (CFTA) and national food stockholding. The report concludes with a set of pragmatic, results-oriented policy options to help to pave the way to better address food insecurity challenges in Africa.

II. State of food and nutrition security in Africa

A. Food security

7. Data estimates for 2016 of the Food and Agriculture Organization of the United Nations (FAO) indicate that some 793 million people, representing approximately 11 per cent of the world's population, are food insecure (i.e., undernourished).¹ This represents some improvement: 45.5 million fewer people are chronically food insecure, compared with the period 2009-2011. In Africa, although progress has been slow, the prevalence of undernourishment during the period 2014-2016 stood at 20 per cent, representing a decline of approximately 28 per cent since 1990-1992. With regard to Africa excluding North Africa, the progress was even better, with hunger declining by 32 per cent during the same period. The achievement at the country level is significantly skewed. While some countries post less than a 5 per cent prevalence of undernourishment, others see 48 per cent of their population challenged by hunger. Similarly, while some countries have managed to drastically reduce hunger by 80 per cent, others witnessed an increase of approximately 70 per cent since 1990-1992.

8. According to the 2006 declaration of the World Summit on Food Security, food security refers to a situation when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food, which meets their dietary needs and food preferences for an active and healthy life. As revealed in the declaration, measuring the prevalence of undernourishment is insufficient in capturing the complexity and multidimensionality of food security dimensions are considered: food availability, economic and physical access to food, food utilization and stability (vulnerability and shocks) over time. Each dimension will be assessed using a number of underlining indicators, at both the process and output levels, as much as possible.²

¹ See the food security indicators of the Food and Agriculture Organization food of the United Nations (most recent update of 16 December 2016). Available from www.fao.org/economic/ess/ess-fa/ata/en/#.WbKf8fMjFhE.

² Data are drawn mainly from the 2016. food security indicators of the Food and Agriculture Organization of the United Nations and calculated by the author.

B. Four dimensions of food security

1. Food availability

9. The availability dimension captures not only the quantity, but also the quality and diversity of food. In Africa, the average dietary energy supply adequacy³ has increased by some 6 per cent since 1990-1992, although it has remained stagnant since 2009-2011, albeit unevenly and at below the average for all developing regions. The overall energy supply adequacy average for Africa, which stands at 117 per cent, indicates, in general, a sufficient level of food supply, which has contributed significantly to reducing the prevalence of malnutrition in Africa. The average dietary energy supply adequacy estimates should, however, be considered with caution, given that these, in effect, reflect national averages and do not always reflect food availability at the household and individual levels. In addition, the 117 per cent figure reveals that Africa's undernourishment, as a whole, is due mainly to the poor distribution of food (food access), rather than an overall insufficient food supply.

10. The overall performance in food supply masks significant variations among countries, both in terms of food supply adequacy and pace of progress. While some countries have succeeded in increasing food supply in the range of 1 to 39 per cent, others have experienced a decline of between 1 and 10 per cent since 1990-1992. In addition, food supply adequacy varies significantly among countries, ranging from between 87 and 152 per cent.

11. Africa excluding North Africa remains the most affected region in terms of sufficiency of dietary food supply. By contrast, North Africa has a high dietary supply adequacy that is even higher than that of developed countries. The average dietary food supply adequacy for the region of Africa excluding North Africa, estimated at 111 per cent, is the world's lowest. This could be explained in part by the disproportionate improvement in food production, compared with population growth. The explosive population growth realized in Africa excluding North Africa, which resulted in a population increase of approximately 88 per cent during the period 1990-2013, has led to a modest increase in the average per capita value of food production, estimated at 7 per cent during the same period. North Africa, with a relatively modest population increase, at 39 per cent, during the same period, witnessed an increase of 44 per cent in per capita value of food. Notwithstanding the improvement, the average value of production in Africa, excluding North Africa, at \$164 per capita, is substantially low, compared with the average of developing countries, which was estimated at \$272 in constant 2004-2006 dollars per capita in 2013. North Africa's per capita average value of production, at \$252 per capita, is also lower, although not significantly so, than that of developing countries. Poor agriculture performance is certainly another critical factor that contributes to the stalled per capita value of agricultural production. During the period 2000-2014, maize productivity in Africa increased by some 15 per cent, half of the global productivity level, to 21,049 hg/ha, far below the world average of 56,157 hg/ha.¹

12. Overall, the analysis of food availability trends in Africa indicates very modest improvement, which suggests that observed food insecurity is caused primarily by the other factors of food security.

2. Access to food

13. With respect to the access dimension, which assesses the capacity to possess the physical and economic resources necessary to secure sufficient food for a nutritious diet, the situation in Africa, in particular Africa excluding North Africa, has continued to be a great challenge in terms of achieving food security. Physical access to food in Africa excluding North Africa is complicated owing to weak or inappropriate infrastructure such as poor roads, ports, communication and food

³ An indicator that measures the adequacy of food supply in terms of calories and assists in understanding whether undernourishment is due mainly to an insufficient food supply or to poor distribution.

storage facilities and other installations that facilitate the functioning of markets, especially in rural areas.

14. According to the *FAO Statistical Yearbook 2014* for Africa, all but nine African countries had road coverage lower than 14 km per 100 km² of land area, and the percentage of paved roads ranged from between 15 and 30 per cent, far behind the range of between 45 and 60 per cent observed globally. In some rural areas in Africa excluding North Africa, only 30 per cent of the population lives within 2 km of an all-season road, which is a little more than half the shares for Latin America and the Caribbean (54 per cent) and South Asia (58 per cent).

15. With regard to economic access, the domestic food price indicator⁴ is assessed in order to monitor food prices in Africa (i.e., regional food security), compared with the relative price of food across regions and countries and over time. Compared with the other regions of the world, the domestic food price level in Africa is in line with the long-term trend of those prevailing in developing countries, although it is significantly higher, indicating low economic availability. As shown by the indicator, relative food prices increased, on average, by 10 per cent in Africa during the period 2000-2014, compared with 3.9 per cent as an average in developing countries. Moreover, Africa remains the region with the highest food prices, at almost 1.4 per cent higher relative to the price of food in developing countries. The high relative prices and the rapid pace of growth of food prices in Africa indicate a high level of market inefficiency, exposing African populations to high food prices, in contrast to other developing regions. Accordingly, food availability and affordability have been more of a challenge in Africa excluding North Africa.

16. Notwithstanding impressive sustained economic growth during the past decade, per capita income has not changed significantly owing mainly to a disproportionate increase in population. Per capita income in Africa increased by 40 per cent during the period 1990-2015, but that was substantially slow, compared with that of developing countries, which increased by 150 per cent during the same period. Globally, African people have the lowest per capita income, of \$4,650 at 2001 international prices, which is only 50 per cent of the average per capita income of developing countries in other regions, of \$9,733 at 2001 international prices.

17. In assessing the extent of food deprivation in Africa, the depth of the food deficit indicator is used to refer to the amount of calories that would be needed for people to be no longer undernourished. According to FAO data for 2016, Africa posted the biggest food deficit among the world's regions, with an estimated deficit of 151kcal/capita/day, 1.6 times that of developing countries. Indeed, this estimate clearly shows that hunger is, in principle, an African phenomenon. The level of food deficit in Africa, estimated at 176 kcal/capita/day. Although the situation has improved in Africa, estimated at 176 kcal/capita/day. Although the situation has improved in Africa, where the depth of food deficit declined between 1990 and 2016 by approximately 26 per cent, the continent's progress is weak, compared with that of developing countries, at 45 per cent. It is to be noted that the level of food deficit is uneven among African countries, ranging from between 3 and 405 kcal/caput/day. The pace of progress also varies among African countries, ranging from between -98 per cent (food deficit almost doubled) and 96 per cent between 1990 and 2016.

3. Food utilization

18. This dimension is assessed by the percentage of the population that has access to essential services such as improved water and sanitation facilities and electricity. Proper food utilization implies that the food is handled, prepared, stored and eaten in a healthy environment.

19. In Africa, steady progress has been made in reducing the number of people without access to safe drinking water and improved sanitation and electricity during the past 20 years. The proportion of the population in Africa with access to improved

⁴ It measures the relative price of food in a country. It is widely used for the global monitoring of food security because it compares the relative price of food across countries and over time.

water and sanitation, however, estimated at, respectively, 72 and 39 per cent in 2015,¹ is well below those in developing countries, at 89 and 62 per cent. Africa witnessed a significant expansion in access to safe water and improved sanitation, with an increase, respectively, of 31 and 19 per cent during the period 1990-2015. An improvement in the expansion of sanitation is, however significantly low, compared with progress achieved in developing countries, which is estimated at 47 per cent. It is well noted that the progress masks considerable variation among countries.

4. Stability

20. It is extremely important that the three food security dimensions discussed above and their related indicators be stable over time in order to ensure sustainable food security. Exposure to risk (either as a consequence of natural hazards or an unstable sociopolitical environment), even in the short run, may have a negative impact on long-term food security outcomes and jeopardize the efforts made by African countries to date.

21. From 1990 to 2014, there was no improvement in the share of arable land equipped for irrigation, remaining fixed at 6.3 per cent, with the share in Africa excluding North Africa at less than 4 per cent. With regard to the share of food imports in total merchandise exports, it declined marginally, from 13 to 12 per cent, although fluctuating significantly during the period 1990-2013 between 9 and 15 per cent. Africa's current share of food imports in total merchandise, at 12 per cent, is substantially and alarmingly high, compared with 5 per cent for the developing countries in other regions during the same period of analysis.¹ This should sound the alarm bells, given the increased vulnerability of the African continent, considering its limited domestic supply capacity, pervasive low income, high risk of dependence on highly volatile global food markets and exposure to climate variability. If Africa, in particular North African countries, continue to rely on cereal imports at the current rate to meet steadily growing domestic national food needs, it will likely experience a massive growth in cereal imports. Africa should therefore adopt strict precautionary measures, given its highly fragile ecosystem, vulnerability and low level of export diversification. The share of food imports to total merchandise exports varies substantially across countries: in some countries, food imports do not exceed 1 per cent of total exports, while in other countries it is 728 per cent.

III. Emerging opportunities

22. Although food and nutrition insecurity is inevitably affected and framed by agricultural production, it should always be considered within the broader context of poverty. The bulk of farmers and pastoralists in Africa are vulnerable to food and nutrition insecurity not because they do not produce enough but rather because they reserve so little. They usually have negligible savings and limited other possible sources of income. It is therefore essential to boost their capacity to produce more agricultural output and create more diverse and stable means of livelihood to protect themselves and their households from shocks, with the aim of eventually enhancing their food and nutrition status. This section highlights some of the recent opportunities that could affect the capacity of farmers to reserve more, thus contributing substantially to enhanced food security in rural and urban areas.

A. Continental Free Trade Area: the right platform to liberalize food markets to drive agricultural productivity and agro-industry

23. The majority of African countries are classified as resource-rich, including in agriculture. Tariffs on raw materials, including in agricultural commodities, in African countries are already low in most cases. Freeing intra-trade in Africa will therefore not likely contribute much to further promoting these exports. Nevertheless, by lowering intra-African tariffs on intermediates and final goods, the Continental Free Trade Area (CFTA) will create sound opportunities for adding value to agricultural

commodities. Doing so would, perhaps most importantly for a majority of countries, offer opportunities for export diversification into other industrialized export sectors. The ambition of CFTA is that, by doing so, it can reduce the dependence on the export of primary goods and help to contribute to Africa's industrial development.

24. By considerably improving market access and expanding market depth, CFTA will provide theimpetus for small-scale farmers to produce more, and in an efficient pattern, therefore moving them away from subsistence-based livelihoods towards commercially oriented farming, having a positive impact on food security in rural areas and beyond.

25. For these potential benefits to be realized, however, countries are required to attract investment towards building new productive capacities and improving intra-State infrastructure across countries. Measures to improve trade information can help investors and traders to identify opportunities, while trade facilitation and improved trade-related infrastructure can help to make such investment financially feasible. The perishable nature of many agricultural food products implies that they are particularly responsive to improvements in customs clearance and logistics.

26. While the majority of African countries stand, in theory, to gain from liberalized continental agricultural market, those countries with a strong agriculture production base and improved productive capacity and potential will be particularly well placed to tap into new opportunities provided in the agro-industry and agro-processing sectors, helping to further promote industrialization development and export diversification, with far-reaching impacts on poverty and hunger alleviation.

27. Given that climate change is expected to narrow the production base of key agricultural commodities in Africa and beyond, trade will increasingly become an effective adaptation mechanism with regard to climate change, reducing the expected negative impact of such change on food security on the continent. This makes the facilitation of intra-Africa trade extremely critical. This, in turn, should stimulate the reorientation of national food security strategies towards regional commodity value chains and the reshaping of food security strategies beyond just the production sphere, which has long predominated food policies on the continent.⁵

28. The current level of intra-Africa trade cannot adequately address the increasing impact of climate change on agriculture, following the irregularities generated by the impact of climate change on supply and demand throughout countries on the continent. In addition, continuing to depend heavily on imports to meet domestic food demand would put Africa at risk owing to the negative externalities associated with imported commodities, including those caused by climate-induced impacts.⁵

B. Public stockholding: national platform to drive productivity and livelihoods for resource-poor producers

29. Public stockholding of food⁶ has been always an important tool to achieve food security. It was commonly used by many developed countries during their development process. In the African context, it is a particularly important policy instrument for the reasons discussed below.

30. Food reserves are expected to be particularly important in the near future, with anticipated adverse effects of climate change. Current experience of extreme weather conditions and findings from recent research⁵ suggest that climate change would have a substantial adverse impact on crops and livestock production in Africa, driving food prices hikes and fluctuations. Such increases and fluctuations have been found from experience to greatly affect specific groups of households, especially rural women-

⁵ See Economic Commission for Africa, *Trade Can Induce Climate-resilient reforms for Food Security in Africa*. Policy Brief #17 (Addis Ababa, 2017).

⁶ Public stockholding refers to a situation in which Governments procure food crops at administered prices (above prevailing domestic market prices) from low-income or resource-poor producers.

headed households, non-agricultural self-employed households, resource-poor producers and urban households, further deepening food insecurity. In addition, research shows that poverty may significantly increase by 2030 in Africa⁷ owing to food price increases caused by productivity shocks⁸ stimulated in response to projected climate change. An increase in poverty due to climatic factors will affect food security, although varying in magnitude, in urban and rural households.

31. Given that food prices are an important component of the consumer price index , their surges, especially in the African context, have several compounded negative effects in the economy. They fuel inflationary pressures, thus reducing real income and driving many people into deeper poverty; worsen a country's current account, in particular in poor food-deficit developing countries, such as many African countries; adversely affect a country's agricultural balance of trade;⁹ make food imports expensive, thus reducing the country's foreign exchange reserves; and negatively affect the demand for food, in particular by food-deficit farming households, and rural and urban poor households, further deepening food insecurity.¹⁰

32. Building national reserves has been widely recognized as an essential component of the food security strategy of developing countries in view of the high volatility of global food stocks and wide fluctuation in global food prices. The impact of food price fluctuation is particularly important in Africa, where food imports contributed some 30 per cent of total supply of cereals in 2010, a substantially high figure compared with those of low-income economies, lower-middle-income economies and low-income food-deficit countries, all estimated at 13 per cent. As African food markets experience structural disorder,¹¹ they experience the same wide food price fluctuation as most other similar groups of countries in the world.¹² To protect consumers and producers against the instability in food security, adaptation measures against climate variability and hedging measures against market and production failures¹³ are essential.

33. A situation of relatively high, stable food prices is considered to be an opportunity to enhance farm incomes through increased agricultural investment for more growth in output. Needless to say, in a low-income region such as Africa, with a substantial portion of the population living below the poverty line, food prices matter. Indeed, the cost of the food basket in these countries is crucial in determining the poverty line. Consequently, the variations in food prices result in significant

⁷ See Hertel, T. W., and others, "The poverty implications of climate-induce crop yield changes by 2030", *Global Environmental Change*, vol. 20, No. 4, pp. 577-588; World Bank, *Turn Down the Heat: Climate Extremes, Regional Impacts, and the Case for Resilience* (Washington, D.C., 2013).

⁸ Significant productivity shocks are expected in African agriculture, given that its low adaptation capacity to climate change is excessively impaired owing to a meagre dependence on irrigation, with only 3.6 per cent of arable land in Africa equipped for irrigation, compared with 30 per cent for developing countries in other regions.

⁹ It was pointed out in a study by the International Monetary Fund that African countries experienced a deterioration in their current account balance by approximately 8 per cent in 2009 as a result of the food price increases in 2008. Low-income African countries have even experienced worse impacts, of an estimated loss of approximately 11 per cent due to an increased food import bill. See International Monetary Fund, *The Balance of Payments Impact of the Food and Fuel Price Shocks on Low-income African Countries: A Country-by-Country Assessment* (2008).

¹⁰ See Maros Ivanic and Will Martin, "Implications of higher global food prices for poverty reduction in lowincome countries", Agricultural Economics, vol. 39, No. s1, pp. 405-416.

¹¹ Economic Commission for Africa, Food Security in Africa: Challenges, Opportunities and Policy Options (Addis Ababa, 2011).

¹² This could contribute to a lack of competitive market structure, in particular for staple crops, in addition to poor market infrastructure.

¹³ The current global food market is structurally different from the market when the Uruguay Round was completed, with a high fluctuation in food supply, due mainly to climate variability, and swings in food price, in addition to dwindling food stocks and a steadily growing demand for food and biofuels. Moreover, the "financialization" of the food market has shown to be one of the major factors shaping today's global food market. See South Centre, *The WTO's Bali Ministerial and food security for developing countries: need for equity and justice in the rules on agricultural subsidies* (2013).

changes in the prevalence of poverty, confirming hunger as the first manifestation of poverty. Efforts to improve food security, including those aimed at stabilizing food prices and increasing the incomes of the most vulnerable groups, are therefore an unavoidable first step in combating entrenched poverty. It is well documented that an increase of one dollar in the agricultural output has four times the impact on poverty as the same dollar increase in the outputs of other sectors.

34. Acquiring surpluses from some regions of a country and sending them to other regions of that country that have a food deficit remains an important food security instrument in most countries. Linking national food reserves to regional ones would further help to mitigate food supply shocks.

35. Elaborating on the importance of public stockholding in the African context, the existing interim "peace clause" of the 2008 Doha agriculture modalities text on national food stockholding (annex 2) restrains national Governments from the development and formulation of such schemes to help their poor producers. Turning the existing interim peace clause into a permanent mechanism, in which developing countries would not be penalized for implementing public stockholding, would advance the cause of national food security, improve small farmers' livelihoods and contribute to achieving the poverty-related and hunger-related goals set out in the 2030 Agenda for Sustainable Development and the African Union's Agenda 2063.

36. For such schemes to be effective, however, it is suggested that national Governments undertake, among others, the following measures:

- (a) Run the schemes continuously for an extended period of time to ensure the sound coverage of resource-poor producers at the national level and to attain the desirable impact;
- (b) Link the implementation of the schemes with improving the quality of procured products;
- (c) Operate the schemes within the framework of national and, preferably, regional food reserves.

IV. Recommended policy options

37. The recommendations that pertain most to Africa's food and nutrition security should be focused on the need to support poor smallholder farmers to boost agricultural productivity and withstand future shocks so that they contribute to long-term food and nutrition security and to shoring up household access to sufficient and healthy food all the times.

- 38. The recommendations at the continental/regional level are the following:
 - (a) Promote regional agricultural cooperation involving the free movement of investment, knowledge and technology transfer and commodities within and between regional economic communities. Doing so should be a win-win situation, in which one country can benefit from the existence of high technology, capital surplus and a huge food export market in the other country or countries, which, in turn, will benefit from stable, consistent and relatively cheap food supplies derived from the extra food surplus in the other cooperating country;
 - (b) Eliminate all barriers to intra-African trade in order to realize the full potential to enhance food self-sufficiency at the subregional level through the linking of regional food security and social protection efforts with regard to trade;
 - (c) Boost intraregional trade through investment in cross-border infrastructure and the harmonization and coordination of trade policies to create a conducive environment for the realization of CFTA, thereby contributing to rapid regional integration;

- (d) Diversify the African economies away from primary agriculture and extractive-based activities through the rapid development and promotion of regional strategic commodities value chains driven by vibrant agribusiness;
- (e) Develop centres of excellence within Africa to develop and share lessons on, among other things, innovation, resilience, improving food security and safety nets;
- (f) Mobilize the support of the international community to fully adopt the proposal of the Group of 33 on public food stockholding, which would, once implemented, prove to be a valuable instrument to assist national Governments in Africa in realizing the human right to food and a decent livelihood.
- 39. The recommendations at the national level are the following:
 - (a) Develop and disseminate new technologies, such as information and communications technology, geographic information system mapping, integrated pest management technologies, post-harvest technology, early warning systems for drought and flooding, irrigation systems and other types of water and soil management technologies and high-yield new crop varieties to rural areas and small farmers;
 - (b) Support poor smallholder farmers to withstand, among other things, future shocks, natural disasters, market volatility and financial crises and to boost agricultural productivity so that it contributes to long-term food and nutrition security;
 - (c) Address food and nutrition insecurity with a holistic approach, which involves: (i) dealing with water, energy and food stress, with a view to managing natural resources sustainably to secure land and water rights and creating a macroeconomic environment that promotes the efficient use of natural resources; (ii) integrating food security into rural and agricultural transformation programmes, with the aim of enhancing the resilience of rural residents; (iii) developing pro-poor policies that enhance the purchasing power of poor people; (iv) developing national approaches to food and nutrition security that are resilient to shocks and other stresses, while ensuring that external and international actors buy into those approaches and support them; (v) encouraging and facilitating a multisectoral approach to food security and resilience through coordinating plans and programmes across line ministries; (vi) orienting national food security policies towards more domestic food self-reliance, within a subregional/regional economic community perspective, to take advantage of the strength and comparative advantages of each country or subregion, while building on existing strong historical and cultural ties and obvious natural complementarities among countries; and (vii) involving stakeholders, including the private sector, in the decision-making process.