

Regional outlook: Sub Saharan Africa

The regional briefs in the *Outlook* highlight broad trends for the regions defined by the FAO in the implementation of its global workplan. Recognising regional diversity, the intention is not to compare results across regions. Instead, they illustrate some of the latest regional developments, highlighting responses to global challenges and emerging trends, and relating these to the main messages of the *Outlook*. The assessments generally compare the end point of the *Outlook's* projection (2032) to the base period of 2020-22. The large and diverse Asia Pacific region has been disaggregated into two separate parts: Developed and East Asia, and South and Southeast Asia.

Agriculture and food systems globally have faced multiple disruptions in recent years – first in the form of the COVID-19 pandemic, and subsequently the impact of Russia's war against Ukraine. The subsequent rise in food prices has impacted affordability and food security in multiple regions. These briefs do not present a quantitative assessment of the impacts of these disruptions, though they do account for the latest expectations with respect to macro-economic developments as the world emerges from these disruptions. The trends and issues presented are those expected to underpin the *Outlook* in the medium term. They assume that the adverse effects on food, feed and fuel production, consumption and trade will gradually moderate, recognising that several uncertainties remain.

This chapter contains seven sections, with text, tabular and graphic information for each region following a similar template. A background section provides the key regional characteristics and provides the setting from which the projection is described in the subsequent sections for production, consumption, and trade. Each regional brief contains an annex providing common charts and tables outlining the key aspects for the region.

Background

Food security for a growing population remains a big challenge

Sub-Saharan Africa (SSA) is a vast and diverse region that comprises 19% of the world's agricultural land and home to 1.1 billion people, 14% of the global population. Amongst the regions covered in this chapter, SSA has a distinct and striking demographic profile. Its population is the youngest, its rate of population growth is the fastest and its urbanisation rate is the slowest. By 2032, SSA's 1.45 billion inhabitants are expected to account for 17% of the world's population. While urbanisation is occurring, it is one of only two regions (the other being Near East and North Africa) where the absolute size of the rural population is still increasing and the only region where more than half of the total population is still expected to reside in rural areas by 2032.

Average per capita income levels in the region are the lowest globally, at USD 1 706 in constant 2010 terms. However, levels vary considerably within the region, with incomes of less than USD 1 000 per capita

in the Least Developed Countries, to USD 7 810 in South Africa. Economies typically depend strongly on resource based commodities, such as agriculture, oils and mining, with agriculture (including fisheries and forestry) accounting for 15% of economic output between 2020 and 2022. In some countries, this share is much higher. Despite high commodity prices, per capita GDP growth in the region only recovered by 1.9% in 2021, following the 5% contraction in 2020 amid the COVID-19 pandemic. Further recovery momentum has been constrained by the global slowdown, tighter financial conditions across the world, limited funds to support recovery and surging inflation. Amid rising uncertainty in the global economy, exchange rates in many of the developing countries in the region depreciated sharply, accelerating inflation and in some instances leading to concerns over foreign currency reserves. In per capita terms, income growth amounted to less than 1% in 2022 and is expected to be similar in 2023, before averaging 1.2% over the remainder of the projection period. This will enable average income levels per capita to reach USD 1 930 by 2032, but current projected growth rates imply that the region will only surpass pre-pandemic income levels by 2025.

Consistent with low absolute income levels, households in SSA spend a bigger share of total income on food than any other region covered in this chapter. On average, across SSA, this share is 23%, but it varies amongst countries, with the LDCs in the region spending on average 31%.¹ Per capita calorie intake is already amongst the lowest in the world and the large share of total income spent on food heightens the region's vulnerability to the persistently high food prices evident over the past two years. Amid a myriad of external shocks, such as the pandemic and the ongoing war in Ukraine, food affordability, and consequently food security, has become increasingly strained. The FAO's State of Food Security and Nutrition (2022) notes that the recovery in GDP growth in 2021 did not translate to improvements in food security, as the prevalence of undernourishment rose further to 23.2%, having already increased from 20.1% in 2019 to 22.7% through the pandemic in 2020. The absolute number of undernourished people in the region increased by 12 million in 2021, which was less than half the 34 million additional undernourished in 2020. While the prevalence of undernourishment in the region has been rising since 2018, the pandemic in 2020 induced a sharp acceleration that is proving difficult to turn around in the current environment. The combination of surging inflation, weaker economic growth, and high prices in 2022 will likely have led to further deterioration, with relief only likely when prices start to normalise.

Sub-Saharan Africa is an agro-ecologically diverse, land abundant region that accounts for 16% of global crop land and 20% of pasture. Despite the region's land abundance, significant differences exist among countries in terms of land availability and farm structures. In some regions, there is clear evidence that more medium scale farmers are emerging (Jayne et al., 2016^[6]), whereas in others, the agricultural sector is facing pressures from land shortages and declining plot sizes. Large parts of available arable land are concentrated in few countries and is often under forest cover (Chamberlin, Jayne and Headey, 2014^[6]), whereas in others it sits in remote areas poorly connected to markets and infrastructure. Despite its high share of land use globally, production practices are often less intensive in nature and the SSA region produced only 5% of the global value of agricultural and fish production in 2020-22. The regions share in global consumption is significantly higher, underpinned by its large population. Dietary composition is still highly staple-dependant and from 2020-22 SSA accounted for 42% of global roots and tuber consumption and 12% of cereals, compared to only 7% of sugar consumption and 6% of global vegetable oil consumption. Protein intake is comparatively low, reflecting weaker purchasing power, with only 6% of global fish consumption, 5% of dairy product consumption and 4% of meat consumption attributed to the region. Despite significant variation across countries, self-sufficiency rates for SSA overall are decreasing for most major food commodities, as domestic supply growth has failed to keep up with the rate of population expansion.

Amongst the greatest challenges facing the region in the near and medium term will be reducing hunger and improving food security in a persistently low-income environment, amid increasingly volatile weather conditions resulting from climate change. Despite improvements and success stories in selected countries,

productivity in most of the region remains stubbornly low. Concentration of land abundance in a few countries implies that substantial opportunities may arise to expand intra-regional trade, particularly considering tariff reductions contained in the African Continental Free Trade Area (AfCFTA) agreement, but trade-related costs need to be reduced to improve competitiveness. Over the outlook period, imports into the region are therefore expected to rise further. In an increasingly volatile and fragmented global market, the region's greatest opportunity to supply more affordable food to its growing population and improve food security rests in closing the productivity gap, improving market access, and reducing the costs of transportation and regional trade.

Production

Raising productivity is critical

Over the coming decade, agriculture and fish production in the region is projected to expand by 24% in net value-added terms. This average annual gain of 2.2% remains slower than the expected population growth in the region and hence, the value of production per capita is set to decline further, in line with the trend observed since 2015 (**Error! Reference source not found.**). The bulk of growth in total value is expected to come from crop production, which will account for more than 70% of total agricultural value by 2032, a slight increase from the base period. While the rate of growth in livestock production is marginally higher than crops, it occurs from a smaller base and its share in total value added is expected to rise only modestly from 19.5% in 2020-22 to 19.8% in 2032. The contribution from fish production to total value is set to decline to 10%. Cereals, roots, and tubers constitute the bulk of crop production in the region and, for many crop types, SSA's share in global production is set to rise. By 2032, the SSA region is expected to contribute 42% of global production of roots and tubers, 22% of pulses, 6.5% of cereals, 2% of oilseeds and 6% of cotton. LDC's account for around 65% of the region's cotton production, mostly situated in West Africa where Benin and Burkina Faso are major contributors. Cotton production from Sub Saharan Africa's LDC's is expected to grow by only 1.5% per annum on average, mostly due to yield gains as a small decline is projected in the area planted to cotton.

Growth of 27% in food crop production over the coming decade will be underpinned by a combination of intensification, productivity gains and changes to the crop mix. The real value of crop production, expressed per unit of cropland used, is expected to rise by 1.7% p.a., accelerating from the past decade. This reflects some intensification, combined with a 7% expansion in land used for crop production by 2032. Double cropping is prevalent in many of the tropical regions with bimodal rainfall, as well as irrigated regions in Southern Africa, where soybeans and wheat are often produced consecutively in a single year. The expansion of rice cultivation, notably in Nigeria, is also expected to benefit from rising prevalence of multiple annual harvests. Further to the intensification, area expansion is also expected in several crops, with increases in roots and tubers, maize, rice, pulses, and other coarse grains only partly offset by reductions in wheat and cotton.

The relatively small expansion in total land use of 0.2% p.a. over the outlook period represents a significant slowdown, at merely half the rate observed over the past decade. The region is mostly considered land abundant, but Chamberlain et al. already noted in 2014 that almost 65% of the available land for expansion is concentrated in only ten countries (Sudan, Madagascar, Democratic Republic of Congo, Mozambique, Angola, Congo Republic, Central African Republic, Ethiopia, and Zambia). Elsewhere, the ongoing expansion of agricultural land use is constrained by land fragmentation, land degradation challenges, conflict in some land abundant countries, and the presence of other competing uses such as mining and urban sprawl. This accentuates the importance of achieving productivity gains to expand production in the region.

Average cereal yields are projected to grow by 1.9% p.a. over the outlook period, marginally faster than the past decade. Continued yield gains for most major crops stem from investments in locally adapted,

improved crop varieties, and better management practices. While yield growth for most crops exceeds the rates projected at a global level, this occurs from a base which is often less than half the global average. Consequently, although the region's substantial gap relative to yields achieved in the rest of the world will narrow it will remain substantial by 2032. Efforts to fully close the yield gap are constrained by the limited use of inputs, irrigation, and infrastructure. Despite widespread implementation of fertiliser subsidy programs in many countries, fertiliser use is the lowest of all regions and, as a net importer of fertilisers, sharp cost increases in 2022 dampened purchases further. In many instances, this resulted in later, suboptimal application. Over the outlook period, fertiliser use is projected to increase by 9%, but application per hectare is still expected to be less than 20% of the global average (**Error! Reference source not found.**). This increase is faster in LDC's, where base period application rates are lower, but closure of the gap in fertiliser use remains constrained by affordability, partly due to the high cost of imported fertiliser in the region.

The net value of livestock production is expected expand by 27% over the coming decade, marginally faster than crops. Much of this growth is led by the dairy sector, with the region expected to add 10 Mt of milk and almost 3 Mt of meat by 2032. Bovine meat is currently the largest among the different meat sectors in SSA and along with poultry is expected to account the biggest share of additional meat production, with 1 Mt of bovine meat and 916 Kt of poultry added by 2032. This is further supplemented by 622 Kt of ovine meat and almost 400 Kt of pigmeat. Most meat production growth is expected to occur in the region's LDC's (Figure).

Bovine and ovine production systems in the region are typically extensive and growth in the coming decade is fuelled by herd expansion more than productivity gains. In 2020-22, the region accounted for only 7% of global bovine meat output yet almost 17% of the global bovine herd. The region's share in the global bovine herd has increased steadily over the past decade and is projected to expand to almost 19% by 2032, yet its share in global beef production will remain just below 8%. Similarly, the region constitutes 13% of global ovine meat output, with 25% of the global ovine flock. Ovine meat production is expected to increase by 29% in the coming decade, with the region increasing its global share to 15%, but will graze 29% of the global flock. The extensive nature of production systems also implies that a substantial share of production is reliant on natural grazing, which is influenced by weather conditions. Consequently, extreme weather conditions such as the prolonged drought in the Horn of Africa has resulted in large scale losses due to limited availability of grazing. Such pressures could increase in the coming decade, as the projected herd expansion will occur on an area of almost unchanged pastureland and climate change could have severe impacts on the frequency and intensity of extreme weather events.

While extensive poultry production systems, reliant on indigenous, dual-purpose breeds are still common in the region, a greater degree of intensification is also emerging, particularly in countries that produce surplus feed grains, such as South Africa. Albeit from a small base, feed intensity is expected to continue increasing in the region as supply chains modernise in countries such as Zambia, Tanzania, and Nigeria, but many smaller producers still continue to use non-grain, often informally procured feed inputs. In countries that already use feed more intensively, genetic improvements and better feed conversion over time will reduce the amount of feed required per animal. Overall, in the region, the net effect results in feed use growing at a marginally slower rate than poultry production, but this difference is bigger in Ethiopia and other LDC where intensification is still slower.

Fish production in the SSA region is still mostly based on captured fisheries, which constituted more than 90% of total fish production in the 2020-22 base period. Aquaculture is growing and is expected to expand by almost 20% by 2032, but from a small base and is still expected to account for just under 10% of total fish production by 2032, compared with 8.7% in the base period. Growth in captured fisheries is slower, at 11% for the ten-year period to 2032, reflecting the finite nature of fisheries resources.

These projections imply that the region's direct greenhouse gas (GHG) emissions from agriculture are expected to rise by 19% in 2032 compared to the base period. This is largely underpinned by further growth in extensive livestock, often in semi-arid areas where crop production is not viable and, by 2032, Sub-Saharan Africa will account for 16% of the total direct agriculture emissions globally. However, agricultural emissions per USD value of production in the region are expected to continue a declining trend.

Consumption

Dietary diversification remains sluggish

The region is home to the highest concentration of poor and undernourished people in the world. Total calorie availability per capita is the lowest amongst the regions covered in this chapter. Pre-existing food security challenges in SSA were exacerbated in recent years by the prolonged effects of COVID-19 and the restrictions imposed to contain it, along with the ongoing war in Ukraine, surging inflation, and slow economic recovery. The initial shock from the pandemic was twofold, through supply chain disruptions, particularly in informal markets that abound in the region, as well as income and employment shocks which inhibited affordability of foods. While economies have opened post COVID-19, the effects of the war in Ukraine prolonged many of the supply chain challenges, particularly for commodities such as wheat, which are mostly imported into the region. The combination of persistently high food prices, slower economic growth in the short term and surging inflation will only perpetuate affordability constraints. Consequently, food security and undernourishment will likely remain challenges and even as income levels start to rise, a sustained recovery will require improvements in the availability, accessibility, affordability, and utilisation of food supplies in the future.

The combination of economic contraction in 2020 and high prices since has led to reduced calorie availability per capita in the region for successive years. Stubbornly high inflation and the slow projected recovery in income levels further implies that per capita gains in calorie availability will be slow, suggesting that population growth will remain the major driver of rising food consumption in the region. In fact, the rate of population growth is such that, despite a mere 5% gain in total calorie availability per capita by 2032, SSA will still be one of the largest sources of additional food demand. Consequently, the region's share of total food calorie consumption in the world is expected to rise from 12% in the 2020-22 base period to 14% by 2032.

Increases of 124 kcal/day over the outlook period will enable average calorie availability in the region to exceed 2555 kcal/capita per day by 2032. Adjusting for estimated household food waste, however, reduces the total intake to 2450 kcal/capita per day. Regardless of adjustments for household waste, total calorie availability in the region is 17% below the global average and still anticipated to be the lowest in the world by 2032.

In terms of composition, the contribution of staples to total calorie availability is higher in SSA than any other region, at almost 70% in 2020-22 (Figure). Amongst these, maize, roots, and tubers account for the greatest share in total food staples consumption. Per capita consumption of food staples is set to rise further over the outlook period, but the composition is expected to change, with relative stability in roots and tubers contrasted by rising intake of rice and maize. The share of staples in total calorie availability is also expected to decline marginally. For most other commodity groups, including meat, dairy, fish, sugar and vegetable oils, per capita consumption levels are currently the lowest globally. While per capita consumption of meat, dairy, sugar, and vegetable oil is set to rise modestly over the outlook period, a small decline is projected in per capita consumption of fish. Changes in per capita consumption levels suggest that dietary diversification remains slow, but given rapid population growth, total food consumption will rise considerably for all commodities.

Protein availability is expected to increase by 2.6 g per person per day, primarily from plant-based sources (Figure). Meat and dairy consumption gains are minimal, while fish is expected to decline, limiting improvements in vital nutrient and micronutrient intake.

Cereals are set to overtake roots and tubers over the coming decade as the main source of feed to the livestock sector – with maize the major contributor. However, the extensive nature of production systems that predominate across most of the region dictate that total feed use is low. By 2032, it will account for just over 4% of total animal feed consumed in the world, despite being home to 17% of the world's population.

Trade

Import dependence grows with slow progress in regional trade agreements

To supply its rapidly expanding population, the region is expected to rely progressively on imports to supplement regional production. With few exceptions, most basic food commodities in the region are produced for domestic consumption rather than exports, but domestic production of many products is insufficient to meet demand. Nevertheless, many countries also benefit from counter seasonality in the northern hemisphere and competitive labour costs, enabling net exports of high value fresh produce.

The region's trade deficit in major food items is anticipated to deepen over the coming decade, as the need for imports grows faster than the supply of exports. In constant (2014-16) global reference prices, the deficit is projected to accelerate compared to the past decade, from about USD 9 billion in 2020-22 to USD 24 billion by 2032. Persistent food deficits are expected to be amplified by an increasing food import bill due to global inflation, national debt denominated in US dollars and rising US interest rates, particularly for African countries that are over-exposed to the US dollar.

While largely self-sufficient in maize production, the region is highly reliant on imports of major cereals such as rice and wheat. Amid rising import volumes, self-sufficiency ratios for both these commodities are set to decline to 50% and 24% respectively by 2032. With a large share of wheat imports typically procured from both Russia and Ukraine, imports into the region were severely disrupted at the start of the war in 2022. The cost of imported products also rose sharply over the past year, but initial availability constraints eased following the UN brokered grain deal. Amid ongoing war in Ukraine, and the debilitating, multi-year drought in East Africa, the renewal of this deal in 2023 is critical to the region.

While most trade related problems directly associated with the initial wave of the COVID-19 pandemic have eased, the region already scored poorly in trade efficiency indicators such as the World Bank's logistics performance index prior to the disruptions that characterised the past three years. Import volumes of most commodities have increased following the challenges of 2020, but the region continues to be bedevilled by high freight rates and persistently high fuel costs, which have exacerbated pre-existing high trade costs, increasing prices for consumers, bearing heavily on those with low incomes.

In contrast to basic food crops, the region is a net exporter of higher value products such as cotton, as well as fresh fruit and vegetables. The bulk of cotton is sold in the global market and by 2032, more than 85% of domestic cotton production will be exported. The real value of fruit and vegetable exports are expected to grow by 28% and 44% respectively by 2032. Consequently, the total value of agricultural exports from the region, expressed in 2014-16 USD, are expected to grow by almost 19% over the coming decade.

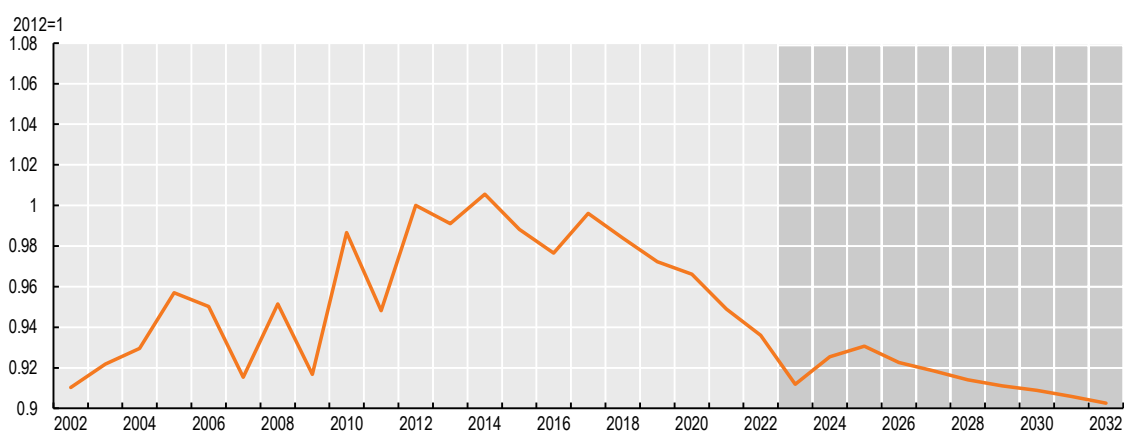
The SSA region has placed much hope for expanded intra-regional trade on the successful implementation of the AfCFTA. Regionalisation of agricultural value chains for prioritised commodities are part of the African Union strategy to drive agrifood system transformation, increased productivity and agro-processing growth by linking producers and agro-parks in surplus areas to markets and areas of need. The agreement is in its second year of operation and its goal of growing internal trade across the region is critical for

economic development, particularly amid rising global uncertainties. The COVID-19 pandemic delayed initial implementation and in 2020 intra-Africa trade declined to 16%, compared to a five-year average of 18%. Agricultural products constitute about a quarter of intra-Africa trade and supply chain disruptions because of the pandemic clearly had an impact, but expectations are high and renewed political momentum has provided the agreement with much needed impetus.

The ambition of the AfCFTA is to achieve a zero-tariff rate on 90% of tariff lines, through a phased approach over a period of ten years for LDC's and five years for others. So far, eight countries are already participating in the Guided Trade Initiative, which seeks to allow commercially meaningful trade under the agreement, to test operational, institutional, legal and trade policy. The products earmarked for trade under this initiative include several agricultural and food products. Despite progress made, many rules of origin agreements remain outstanding, and some customs union members are yet to ratify the agreement, which prevents several regional trade unions from fully trading under preferential terms, unless concessions can be made to allow the agreement to be implemented on an individual basis. While further engagements regarding rules of origin need to be concluded, the agreement will ultimately only exclude 3% of tariff lines and therefore has significant potential to increase intra-Africa trade in the medium term. The UNCTAD, in its 2021 *Economic Development Report on Africa* notes that the projected USD 3 trillion borderless market could be instrumental in reversing current trends in poverty, inequality and growth on the continent.

Apart from tariffs, a major factor constraining trade within the region is high non-tariff barriers. Although the agreement includes a mutual recognition of standards and licences, as well as the harmonisation of sanitary and phytosanitary (SPS) measures, many non-tariff barriers are more difficult to remove or reduce. The non-tariff costs of trade in the continent, as per the ESCAP-World Bank trade cost data, are estimated at an *ad valorem* equivalent of around 283%. Moreover, these are over 300% for agricultural products² and more than 100% higher compared to non-agricultural manufacturing products. A major contributor in this regard is the high cost of road transportation, which emanates from poor infrastructure, as well as inefficiencies at border posts. This is supported by the presence of only six SSA countries in the top half of the World Bank's logistical performance index ranking, which covers 160 countries. Based on the regulations implemented to date, and the need to finalise tariff reduction schedules and sensitive product lists, no discernible impact was included in the *Outlook's* baseline projection.

Figure 1. Per capita net value of agriculture and fish production in Sub-Saharan Africa

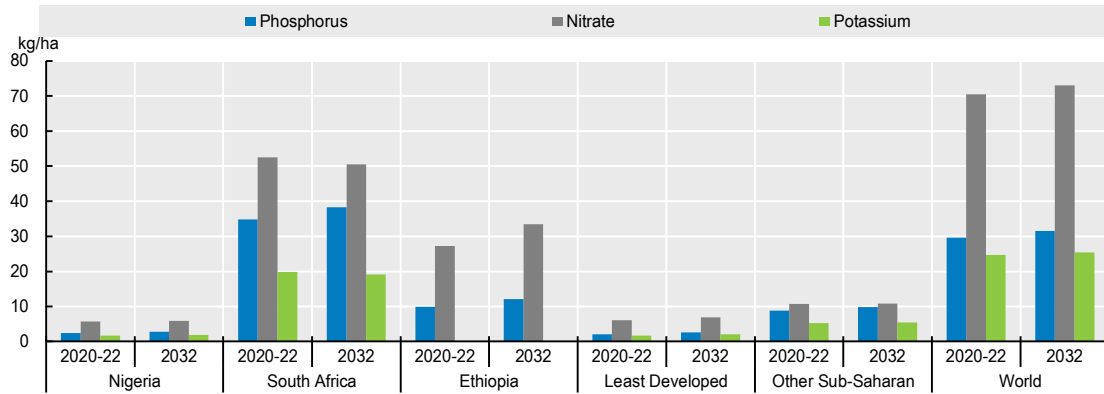


Note: Estimates are based on historical time series from the FAOSTAT Value of Agricultural Production domain which are extended with the *Outlook* database. Remaining products are trend-extended. The Net Value of Production uses own estimates for internal seed and feed use. Values are measured in constant 2014-2016 USD.

Source: FAO (2023). FAOSTAT Value of Agricultural Production Database, <http://www.fao.org/faostat/en/#data/QV>; OECD/FAO (2023) "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

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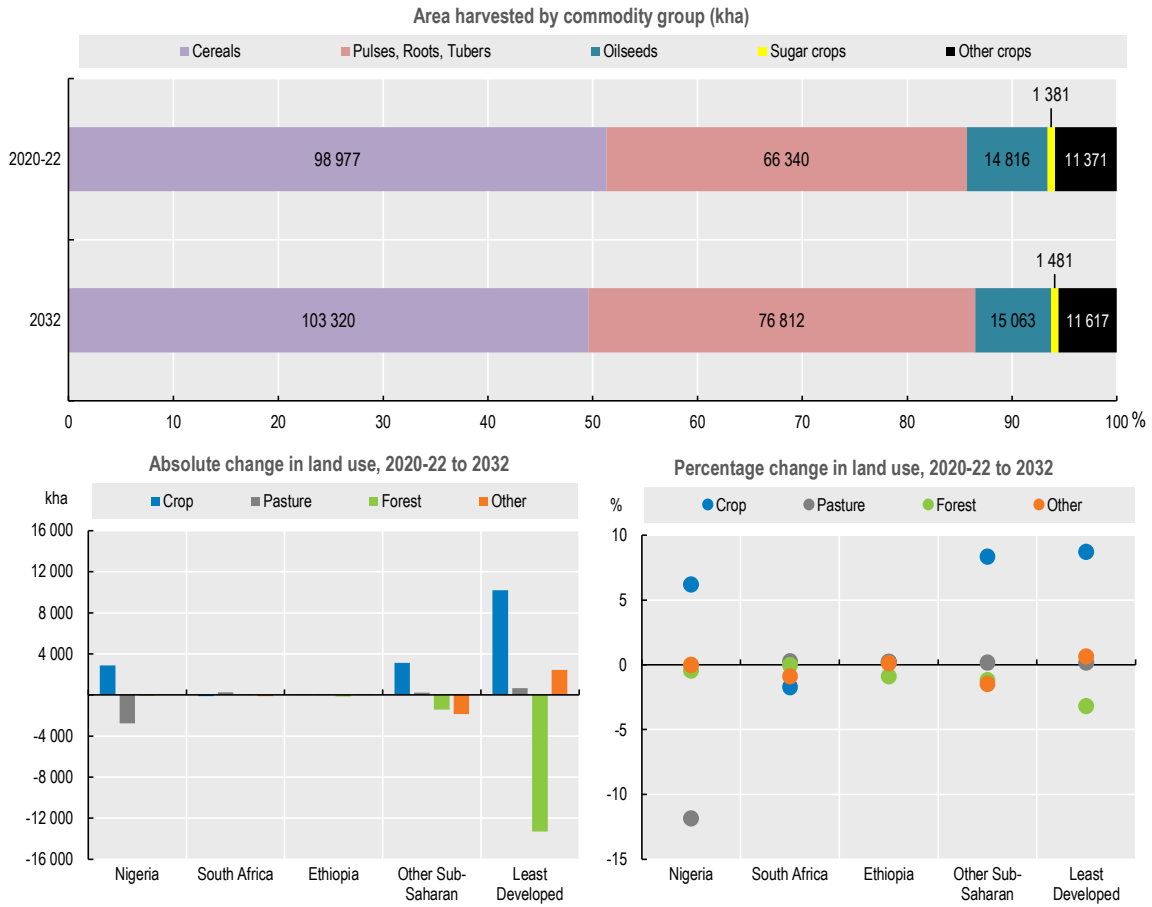
Figure 2. Fertiliser application per hectare of land used for crop production is low in Sub-Saharan Africa



Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

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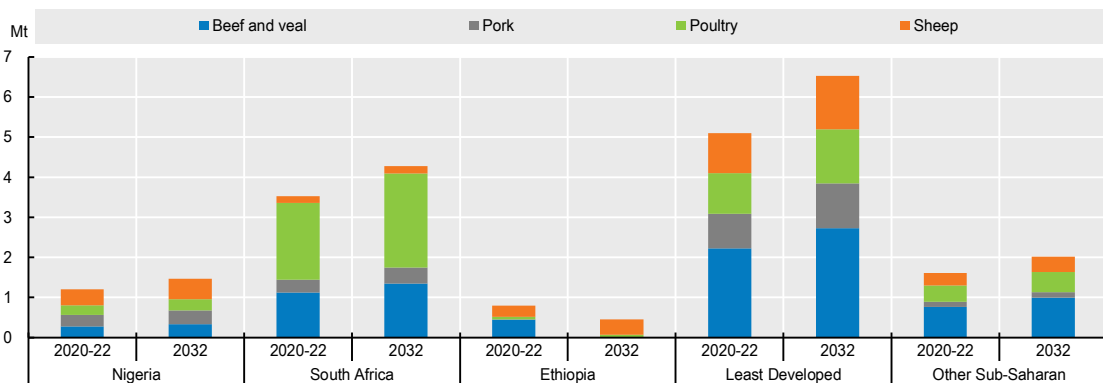
Figure 3. Change in area harvested and land use in Sub-Saharan Africa



Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

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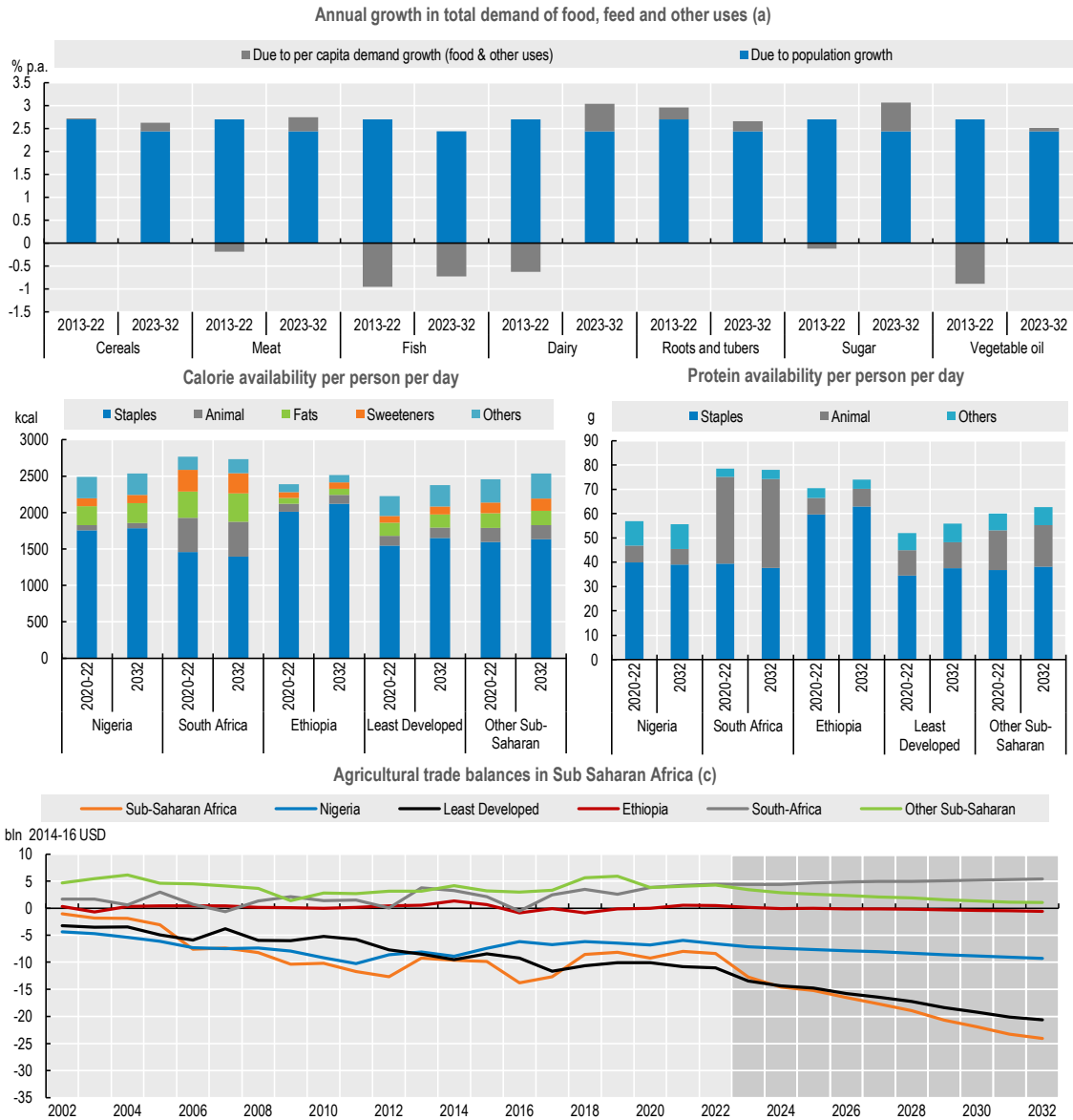
Figure 4. Livestock production in Sub-Saharan Africa



Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/v4gdnl>

Figure 5. Demand for key commodities, food availability and agricultural trade balance in Sub Saharan Africa



Notes: Estimates are based on historical time series from the FAOSTAT Food Balance Sheets and trade indices databases and include products not covered by the *Outlook*. a) Population growth is calculated by assuming per capita demand constant at the level of the year preceding the decade. b) Fats: butter and oils; Animal: egg, fish, meat and dairy except for butter; Staples: cereals, oilseeds, pulses and roots. c) Include processed products, fisheries (not covered in the FAOSTAT trade index) based on outlook data.

Source: FAO (2023). FAOSTAT Value of Agricultural Production Database, <http://www.fao.org/faostat/en/#data/QV>; OECD/FAO (2023) "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

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Table 1. Regional indicators: Sub Saharan Africa

	Average			%	Growth ²	
	2010-12	2020-22 (base)	2032		Base to 2032	2013-22
Macro assumptions						
Population ('000)	845 829	1 106 238	1 445 172	30.64	2.70	2.44
Per capita GDP ¹ (kUSD)	1.71	1.71	1.93	13.28	-0.56	1.21
Production (bn 2014-16 USD)						
Net value of agricultural and fisheries ³	157	200	248	24.10	2.04	2.19
Net value of crop production ³	104	138	174	25.41	2.42	2.33
Net value of livestock production ³	36	39	49	26.65	0.72	2.46
Net value of fish production ³	18	23	25	11.69	2.21	0.80
Quantity produced (kt)						
Cereals	120 032	157 616	201 865	28.07	2.67	2.29
Pulses	16 944	20 664	26 885	30.10	1.61	2.67
Roots and tubers	71 176	96 871	123 649	27.64	2.81	2.68
Oilseeds ⁴	7 575	8 662	10 030	15.80	1.11	1.45
Meat	9 651	12 241	15 216	24.30	2.02	2.25
Dairy ⁵	3 401	3 975	5 292	33.15	2.27	2.91
Fish	6 343	8 015	8 954	11.71	2.16	0.80
Sugar	6 795	7 632	8 876	16.30	1.34	1.52
Vegetable oil	5 684	7 657	8 533	11.44	3.07	1.03
Biofuel production (mln L)						
Biodiesel	0	0	0	142.91	0.00	2.16
Ethanol	623	923	934	1.12	4.30	2.74
Land use (kha)						
Total agricultural land use	856 537	888 950	903 462	1.63	0.36	0.15
Total land use for crop production ⁶	184 325	220 195	236 296	7.31	1.65	0.62
Total pasture land use ⁷	672 211	668 755	667 166	-0.24	-0.04	-0.02
GHG Emissions (Mt CO ₂ -eq)						
Total	779	889	1 058	18.97	1.37	1.71
Crop	237	213	221	3.42	-0.46	0.29
Animal	542	674	835	23.92	2.01	2.13
Demand and food security						
Daily per capita caloric food consumption ⁸ (kcal)	2 368	2 359	2 480	5.14	-0.09	0.74
Daily per capita protein food consumption ⁸ (g)	59.9	57.6	60.1	4.39	-0.41	0.66
Per capita food consumption (kg/year)						
Staples ⁹	182.0	187.0	197.5	5.63	-0.07	0.23
Meat	8.3	8.3	8.5	2.26	-0.32	0.26
Dairy ⁵	4.3	3.8	3.9	2.25	-0.52	0.55
Fish	9.5	8.8	8.3	-6.35	-0.81	-0.65
Sugar	10.5	10.6	11.4	7.34	-0.13	0.53
Vegetable oil	7.8	7.3	7.8	7.33	-2.08	0.83
Trade (bn 2014-16 USD)						
Net trade ³	-12	-9	-24	181.96
Value of exports ³	32	49	58	18.64	3.02	1.67
Value of imports ³	43	57	82	43.01	2.00	3.05
Self-sufficiency ratio ¹⁰						
Cereals	83.5	81.9	77.6	-5.22	0.09	-0.24
Meat	87.4	83.4	77.5	-7.14	-0.71	-0.47
Sugar	73.7	64.3	53.1	-17.47	-0.61	-1.10
Vegetable oil	58.6	58.5	49.7	-15.05	1.21	-1.46

Notes: 1 Per capita GDP in constant 2010 US dollars. 2. Least square growth rates (see glossary). 3. Net value of agricultural and fisheries data follows FAOSTAT methodology, based on the set of commodities represented in the Aglink-Cosimo model valued at average international reference prices for 2014-16. 4. Oilseeds represent soybeans and other oilseeds. 5. Dairy includes butter, cheese, milk powders and fresh dairy products, expressed in milk solid equivalent units. 6. Crop Land use area accounts for multiple harvests of arable crops. 7. Pasture land use represents land available for grazing by ruminant animals. 8. Daily per capita calories/protein represent food consumption per capita per day, not intake. 9. Staples represent cereals, oilseeds, pulses, roots and tubers. 10. Self-sufficiency ratio calculated as $\text{Production} / (\text{Production} + \text{Imports} - \text{Exports}) * 100$.

Sources: FAO (2023). FAOSTAT Food Balance Sheets and trade indices databases, <http://www.fao.org/faostat/en/#data>; OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

Notes

¹ Source OECD-FAO interpolated for 2018-20 from the database of the Global Trade Analysis Project (GTAP) 2011, using food expenditure and GDP data used in this *Outlook*.

² ESCAP-World Bank trade cost database: <https://www.unescap.org/resources/escap-world-bank-trade-cost-database>. Summarised in Tralac report: <https://www.tralac.org/resources/infographics/15537-intra-africa-non-tariff-trade-costs-for-the-period-2015-2019.html>.