

Regional outlook: Latin America and the Caribbean

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

Export led growth facing increased risk amid global volatility

The Latin America and Caribbean¹ region spans some 2 billion hectares and contains an abundance of agricultural resources. It houses more than 650 million people, almost 8.5% of the global population. While its average population density is low, it is the most urbanised amongst the developing regions. By 2032, its population is expected to exceed 700 million, of which 84% could reside in urban settings. This implies that most of the regions poor live in urban areas, but at the same time, the obstinately high incidence of poverty in rural settings presents significant challenges.

The disruptions of the past three years reversed years of progress in reducing poverty and hunger in the region. At the height of the COVID-19 pandemic in 2020, the combination of economic recession, deteriorating financial conditions and value chain disruptions resulted in a substantial increase in the prevalence of undernourishment and food insecurity. The Economic Commission for Latin America and the Caribbean suggests that the pandemic pushed the extreme poverty rate in the region to 13.8% by 2021, implying that the number of people living in extreme poverty reached 86 million. During the subsequent period of rising food prices, the prevalence of undernourishment increased further and in 2021, reached levels last seen in 2006. In 2022, the persistently high global food prices, which was exacerbated by Russia's war against Ukraine, combined with high general inflation, left little room for improvements in affordability and consequently food security, particularly in a region where the cost of healthy eating is the highest of those covered in this chapter (FAO, IFAD, PAHO, UNICEF and WFP, 2023^[13]).

Economic prospects across much of the region have been uncertain for some time and income levels per capita contracted by an annual average of 1.5% over the past decade. Pre-existing structural challenges accentuated the effect of the COVID-19 pandemic and in 2020, per capita GDP declined by 7.1%. Propelled by high commodity prices and the substantial role of trade in the region, GDP rebounded by 5.9% in 2021 and a further 2.7% in 2022, enabling per capita income to surpass pre-pandemic levels. In 2023, the rebound is facing renewed resistance – inflation has reached a 25-year high, inducing interest rate hikes, and global conditions are less supportive. Commodity prices are softening, and global demand is weakening amid tighter financial conditions. Consequently, per capita GDP growth in Latin America and the Caribbean is expected to slow to less than 1% in 2023. Across the diverse range of countries in the region, the magnitude of the rebound and subsequent slowdown differs, depending on the composition of economic activity and the extent of domestic risks that amplify global effects.

In the medium term, per capita GDP is expected to rise by 1.6% p.a., to approach USD 10 500 per capita by 2032. This is only 6% higher than in 2014 and remains 21% below the global average of USD 13 342. On average across the region, households are estimated to spend around 16% of total expenditure on food. This suggests that the current cycle of high food prices, combined with elevated inflation and slower income growth in the short term could impact significantly on food security in the coming decade;² In countries with heightened macroeconomic instability, this impact could be even more pronounced.

Agriculture in the region is highly diverse. Farm structures range from , to some 15 million smallholder and family farms responsible for much of the region's food production (OECD/FAO, 2019^[14]). Agriculture and fish production accounts for almost 8% of total GDP. This share increased at the height of the pandemic, thanks to agriculture's robust performance and exemption from lockdown restrictions. The prolonged period of high prices further benefitted agricultural performance, sustaining its share in total GDP. As other sectors continue to recover and agricultural commodity prices normalise, it is anticipated that the share of agriculture and fish production in total economic activity will decline to below 7% by 2032. Short term impediments such as drought in Brazil or Argentina could accelerate this decline.

The region is a major contributor to global agriculture. Between 2020 and 2022, it accounted for 14% of the net value of agriculture and fish production globally and its share in total exports is higher at 17%. The importance of agricultural exports in the region is further underscored by its growing share in total production value, which has risen to 45%. Historic export growth has been aided by greater competitiveness, with total factor productivity increasing by 40% from 2000 to 2019.³ Despite lower labour input, output growth has been underpinned by rising material inputs, notably fertiliser, which doubled over the period 2000 to 2019. Increasing cost pressure over the past two years, combined with availability constraints in 2022 following Russia's war against Ukraine curtailed historically high fertiliser application rates. With expected growth in the coming decade predominantly export led, input use efficiency and the success of its climate change mitigation and adaptation strategies will be critical to maintain and grow competitiveness, as will global approaches regarding openness to trade and an increased focus on environmental sustainability by some major importers. Despite the region's significant export orientation,

several countries in the region are also net importers, such as Panama, El Salvador and most of the Caribbean, but intra-regional trade remains low.

As the biggest net exporter amongst all the regions covered in the *Outlook*, it is paradoxical that some of its major challenges relate to food security. These emanate from affordability constraints, rather than availability, and are underpinned by a combination of income distributional issues and current high prices. A major contributor has been rising poverty over the past decade, exacerbated by disruptions such as the pandemic and macroeconomic instability in many countries. The region's robust export orientation shielded agricultural growth from the macroeconomic challenges, but also made it vulnerable to increasing volatility, tighter financial conditions and weaker import demand globally in the near term. Post-pandemic, an increasing focus on development of domestic supply chains and the heightened awareness of environmental sustainability among some importers may influence trade policy and subsequent export prospects. Other trade related issues arise from increased concentration of exports by destination, which exposes export demand to higher market risks. Further to trade related risks, the sectors adaptation strategies and resilience to climate change impacts will be critical to sustained growth.

Production

Steady and sustained yield growth boosts crops and livestock

Agricultural and fish production in the region is projected to expand by 12% by 2032, markedly slower than in the past. Almost 70% of this growth is expected to come from crop production (+17%), compared to a more muted expansion of 11% in the livestock sector and a contraction of 10% in the value of fish production. Consequently, the share of crops in total production value is set to rise further to almost 60% by 2032, with a further 42% attributed to livestock and 9% to fish.

The region's land abundance contributes to strong crop production growth, which is derived from a combination of expansion and intensification. Total land used for agriculture is expected to rise by 6.3 Mha, reversing a historic trend of decline. This includes a 7.1 Mha expansion in cropland, as well as a small reduction in pasture. Amid rising prevalence of double cropping, the expansion in total area harvested, at 7%, is significantly faster than that of crop land use. Of the additional 13.9 Mha added to total area harvested by 2032, more than half is dedicated to maize and soybeans, which account for 29% and 22% of the expansion respectively by 2032. The region already accounts for just over half of global soybean production, and this share is expected to rise to 54% by 2032. Consequently, supply fluctuations within the region, particularly Brazil as its biggest producer, can cause substantial world price volatility. This was evident by the sharp increase in soybean prices amid drought conditions in 2021 and, in the face of ongoing climate change, such events may become more frequent. Many countries in the region are already challenged by prolonged drought conditions, which influence productive potential, as well as the prevalence of natural disasters such as wildfires. Under normal weather conditions, the region has ample potential to fill supply gaps resulting from reduced production in Ukraine, but heightened uncertainty from the ongoing war in the Black Sea region further accentuates price responses to weather conditions in the Latin America and Caribbean region. While its contribution to global maize production is smaller than that of soybeans, production growth of 1.5% p.a. is sufficient to push the region's share in total maize production to 19% by 2032, with Brazil contributing more than half.

Further to area expansion, yield gains were instrumental to the regions strong production growth. The region is an intensive user of fertiliser and application rates per hectare increased faster than any other region over the past decade. Recent high prices heightened awareness of optimizing efficiency in fertiliser use and over the coming decade, application rates per hectare are expected to rise by only 4%. Nevertheless, the combination of technological innovation and practices that optimize efficiency support expected yield gains in most major crops, including a 9% gain in cereal yields and a 12% gain in oilseed

yields by 2032. This also enables further improvement of 12% in the net value of production per hectare of cropland, as well as a 6% reduction in the fertiliser required per calorie produced.

The region provides 16% of global livestock production and while growth of 1% p.a. is expected to be slower than in the crop sector, it is sufficient to sustain its contribution to global value. Growth prospects are sensitive to the risks posed by animal disease. Among the various meats, poultry is expected to grow the fastest, enabling it to account for just over 60% of additional meat production by 2032. Its short production cycle aids rapid improvements in genetics and feed conversion, supporting growth prospects, while the decline in feed prices relative to meat in the medium term will incentivise expansion. Bovine and pigmeat are expected to grow by 0.9% p.a. and 1.2% p.a. respectively, but the bovine sector is bigger and will account for 22% of additional meat production by 2032. Productivity gains will be instrumental to growth, as a 9% expansion in beef production results from a mere 3% expansion in the beef herd by 2032.

Fish production comprises just 11% of total value in the region and this share is expected to decline to 9% by 2032, due to a 10% contraction in total output. Production is still predominantly derived from captured fisheries, but aquaculture is developing in several countries and by 2032, is expected to contribute 30% of total fish production. Captured fisheries are expected to remain volatile over the projection period, influenced by intermittent *El Niño* effects, which have a strong impact in the region and tends to influence fish used for the production fishmeal and fish oil.

GHG emissions from agriculture are expected to rise by 3% over the coming decade, from both crop and livestock products. By 2032, the region is expected to account for almost 18% of the global emissions from agriculture, higher than its share in total output. Nevertheless, expressed relative to the net value of agricultural production, emissions per unit value of output are set to decline consistently over the next ten years.

Consumption

Dietary patterns are complex but evolving

A decade of growth in total calorie availability in the region has largely stagnated since 2015. This mirrors movements in per capita income levels, which declined because of macroeconomic instability. More recently, the pandemic induced recession in 2020 and subsequent increase in food prices further constrained affordability of nutritious food products, resulting in consecutive years of decline in calories available for consumption. By 2032, average per capita intake is expected to reach 3 111 kcal/person per year, but growth is slow at only 3% for the ten-year period. This marks an increase of only 89 kcal/person/day, due to gains in consumption of cereals, meat, dairy and vegetable oil, along with reduced sugar consumption. Despite the decline of 2 kg per person per year by 2032, sugar consumption in the region remains high, at almost 65% above the global average.

In a region challenged by the double burden of persistent food insecurity and malnutrition in all its form, amid rising prevalence of overweight and obesity, the reduction in sugar consumption reflects a shift to increased health awareness, which benefits from the introduction of initiatives such as front of package labelling legislation and sugar sweet beverage taxes. While efforts to induce healthy eating may start to bear fruit, the current cycle of high food prices continues to challenge food security and nutritional quality. Persistently high costs of healthy diets and affordability constraints amongst those on lower incomes affect both the quality and quantity of food intake, despite the positive impact of initiatives such as school feeding programs, which are estimated to benefit up to 37% of the poorer members of the population.

Per capita protein consumption is expected to reach 90g/person/day by 2032, an increase of 3.5g/person from current levels. This gain largely accrues to animal products, which accounts for two-thirds of the growth in protein availability. Meat consumption is expected to rise by 2.9 kg per capita to almost

53 kg/person/year by 2032 – almost 80% higher than the global average. Growth is derived from poultry and pigmeat, where consumption is expected to rise by 0.6% p.a., while a modest decline is expected in bovine meat consumption by 2032. Fish consumption in the region is still low, around half of the global average, but is set to expand by 0.3% p.a., to reach 11 kg/person/year by 2032.

Animal feed use is expected to rise by 13% over the next ten years, faster than meat and dairy production. This comes despite expected genetic improvement that results in better feed conversion ratios and reflects further intensification in livestock production systems, which is integral to growth. More than 60% of additional feed use comes from maize, with an additional 24% from protein meal, mirroring typical ratios in poultry rations and resulting in growth of 15% in maize and protein meal feed use.

The region is also a major contributor to the global ethanol market and by 2032 is expected to raise its share in world production to 31%. Brazil constitutes almost 90% of ethanol production and use in the region. Sustained by its RenovaBio programme, designed to reduce emission intensity as part of its COP 21 commitments, ethanol use is expected to rise by 35% over the coming decade. Its rate of production growth is only marginally slower at 33%, with sugarcane expected to remain the primary feedstock. Consequently, Brazil's share in global ethanol exports could decline to 15% by 2032.

Trade

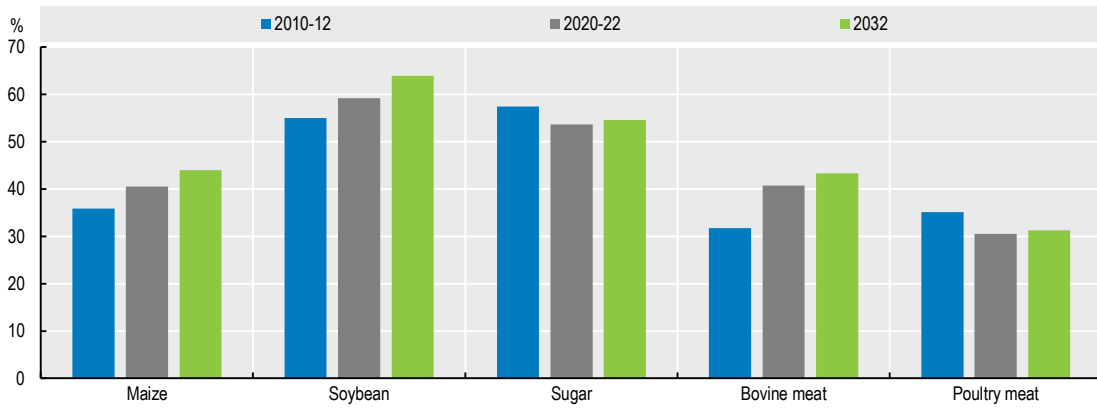
Exports are key to sustained agricultural growth

Latin America and the Caribbean is the largest net exporter amongst all the regions included in this Chapter. Exports have been integral to its agricultural growth, reducing its exposure to the macroeconomic instability within the region and improving resilience to exogenous shocks. The share of exports in total agricultural production has increased consistently and is expected to reach 50% by 2032. This follows an expected expansion of 27% in its trade surplus for agricultural products, which will also push its share in global exports to almost 18% by 2032. Brazil is the biggest exporter in the region and the primary driver of growth, but its projected expansion of 1.8% p.a. is significantly slower than the 6% p.a. achieved over the past decade. Other notable contributors to regional export growth include Mexico and Argentina, while exports of fresh fruit from Peru are also expected to rise rapidly.

The region counts amongst the leading global exporters for a range of commodities and by 2032 is expected to sustain a global export share of more than 30% for maize, soybeans, sugar, beef, poultry and fishmeal. In the case of maize, soybeans and beef, expected export growth is sufficient to increase its global market share to 44%, 64% and 43% respectively. Its share of sugar and poultry exports globally is also expected to increase marginally to 55% and 31% respectively, whereas reduced production volumes result in a declining share of the world's fishmeal exports.

The importance of exports to agriculture in the region is underscored by its central position in global trade, as well as the pivotal role of exports in driving production growth. Sustained growth will depend on continued orientation towards open trade in the global market. The disruptions of the past three years exposed vulnerabilities in the global trade system, which resulted in logistical bottlenecks and rising costs. Amid the crises, many exporting countries imposed trade policies that prioritise domestic supply, creating opportunities for the Latin American and Caribbean region, which did not impose restrictions, to gain export market share. At the same time, the development of domestic supply chains has been prioritised in many parts of the world, to mitigate risks of disruption. Over the coming decade, the evolution of trade relations in various parts of the world will influence the region, creating both new opportunities and further risks. While export led growth has served it well in the past, the global market is increasingly volatile and international trade more fragile, with risks of geopolitical fragmentation. Improved internal market integration and functioning of small and medium enterprises, cooperatives and family farms could expand trade within the region, thus diversifying market opportunities and bolstering the sector's resilience.

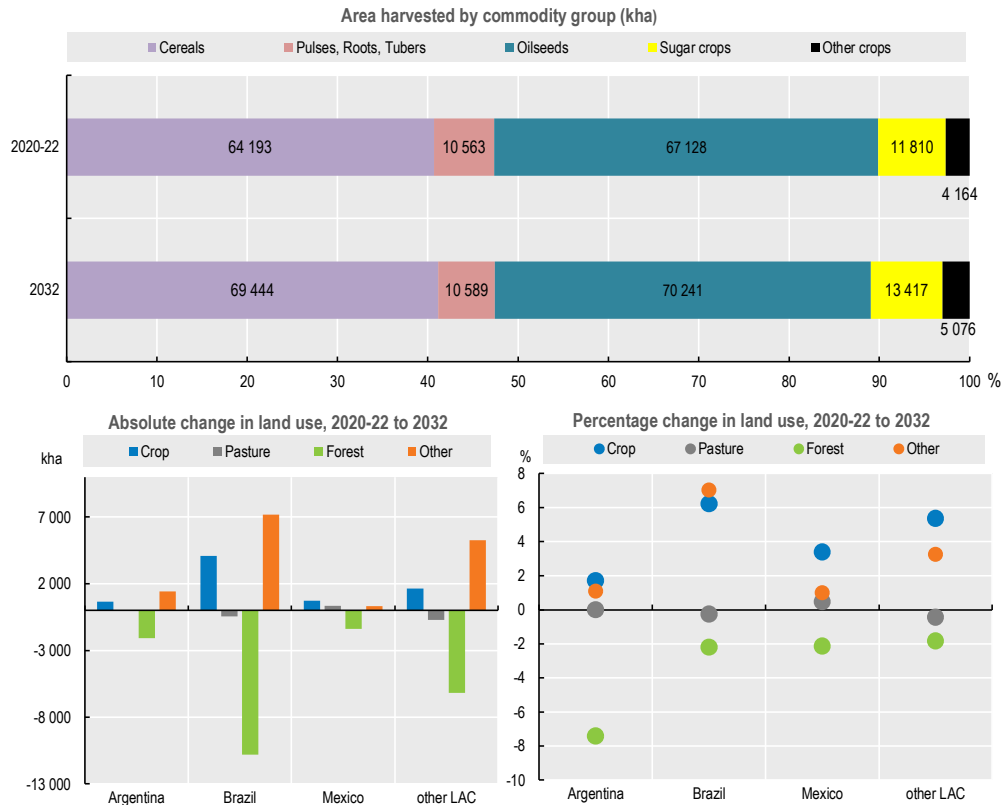
Figure 1. Trends in export market shares of the Latin America and the Caribbean



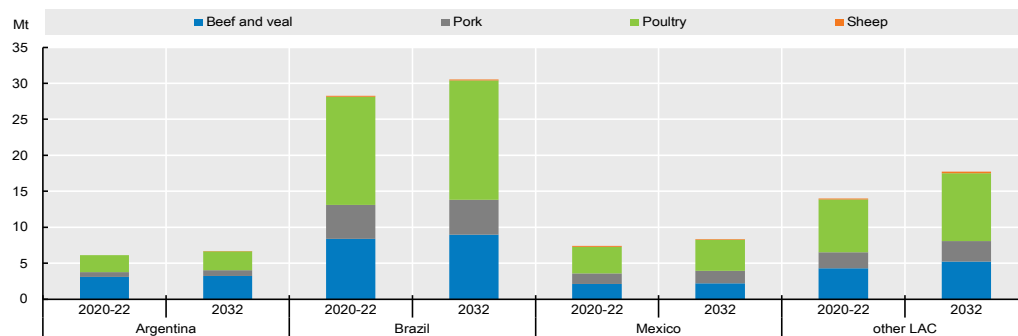
Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

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Figure 2. Change in area harvested and land use in Latin America and the Caribbean



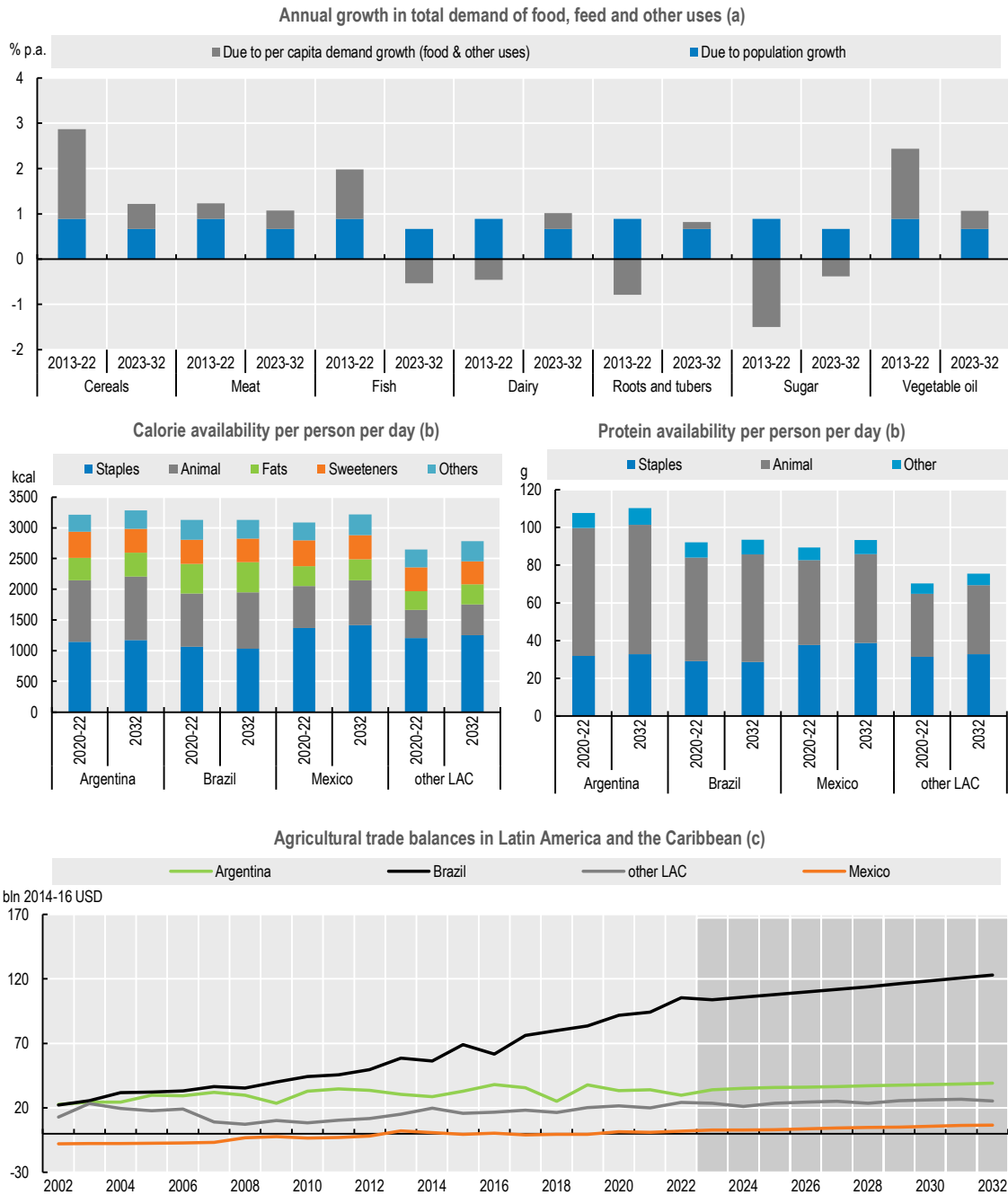
Source: OECD/FAO (2023), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink 2 <https://stat.link/ycoxit>**Figure 3. Livestock production in Latin America and the Caribbean**

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/ed61fl>

Figure 4. Demand for key commodities and food availability in Latin America and the Caribbean



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: Latin America and the Caribbean Region

	Average			%	Growth ²	
	2010-12	2020-22 (base)	2032	Base to 2032	2013-22	2023-32
Macro assumptions						
Population ('000)	595 669	654 446	704 792	7.69	0.89	0.66
Per capita GDP ¹ (kUSD)	9.59	8.73	10.49	20.14	-1.47	1.58
Production (bln 2014-16 USD)						
Net value of agricultural and fisheries ³	355.5	437.7	488.9	11.69	2.00	1.01
Net value of crop production ³	161.2	206.7	241.9	17.02	1.85	1.23
Net value of livestock production ³	150.0	183.2	203.9	11.30	1.99	0.99
Net value of fish production ³	44.3	47.8	43.1	-9.82	2.76	0.06
Quantity produced (kt)						
Cereals	201 006	286 237	336 493	17.56	3.71	1.36
Pulses	7 401	7 212	7 944	10.15	-0.25	1.18
Roots and tubers	14 532	14 084	15 040	6.79	0.02	0.84
Oilseeds ⁴	5 422	6 626	7 072	6.73	3.57	0.74
Meat	47 210	55 817	63 302	13.41	1.63	1.16
Dairy ⁵	9 218	10 334	11 507	11.34	0.34	0.98
Fish	15 702	16 869	15 204	-9.87	2.69	0.05
Sugar	56 385	56 249	64 632	14.90	-0.40	1.14
Vegetable oil	21 311	27 837	32 955	18.39	1.91	1.21
Biofuel production (mln L)						
Biodiesel	5673.36	9278.75	11576.23	24.76	5.50	1.48
Ethanol	26 855	35 237	46 834	32.91	2.08	2.32
Land use (kha)						
Total agricultural land use	658 646	650 774	657 098	0.97	-0.10	0.09
Total land use for crop production ⁶	150 296	155 801	162 905	4.56	0.42	0.33
Total pasture land use ⁷	508 350	494 973	494 193	-0.16	-0.26	0.01
GHG Emissions (Mt CO ₂ -eq)						
Total	1 027	1 095	1 128	3.01	0.78	0.16
Crop	98	106	112	5.98	1.75	0.60
Animal	910	959	983	2.54	0.59	0.10
Demand and food security						
Daily per capita caloric food consumption ⁸ (kcal)	2 867	2 927	3 012	2.91	0.07	0.26
Daily per capita protein food consumption ⁸ (g)	80.5	83.7	87.1	4.1	0.2	0.3
Per capita food consumption (kg/year)						
Staples ⁹	151.1	148.0	150.7	1.80	-0.16	0.17
Meat	46.9	49.7	51.9	4.31	0.46	0.37
Dairy ⁵	15.9	15.9	16.5	3.68	-0.42	0.33
Fish	10	11	11	1.77	0.13	0.29
Sugar	44	38	37	-4.18	-1.27	-0.39
Vegetable oil	17	18	18	2.95	0.11	0.18
Trade (bln 2014-16 USD)						
Net trade ³	88	153	194	26.76
Value of exports ³	161	248	305	22.88	4.19	1.70
Value of imports ³	74	95	111	16.63	3.15	1.19
Self-sufficiency ratio ¹⁰						
Cereals	102.7	112.8	113.6	0.72	1.32	0.23
Meat	111.0	112.4	112.7	0.23	0.39	0.09
Sugar	211.5	226.2	245.5	8.56	0.65	1.04
Vegetable oil	122.6	125.5	129.7	3.34	-0.65	0.15

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 2004-06. 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 Other LAC: Chile, Colombia, Paraguay, Peru and South and Central America and the Caribbean. For mentioned regions, see Summary table for regional grouping of countries.

² 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*.

³ Fuglie, K. (2015), "Accounting for growth in global agriculture", *Bio-based and Applied Economics*, Vol. 4 (3): pp. 221-254 (updated to 2019, USDA).