

## 2. Regional briefs

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This chapter describes key trends and emerging issues facing the agricultural sector in the six FAO regions, i.e. Asia and Pacific, Sub-Saharan Africa, Near East and North Africa, Europe and Central Asia, North America, and Latin America and the Caribbean. For each region, it provides background on key regional characteristics (e.g. population, per capita income, agro-ecological conditions and natural resources endowment) and highlights medium-terms projections for production, consumption, and trade for the period 2020-29.

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### 2.5. Regional outlook: Europe and Central Asia

#### ***Background***

Europe and Central Asia<sup>1</sup> is a diverse region that includes the European Union, United Kingdom, Russian Federation, Ukraine, and Turkey as the main agricultural producers. There is considerable variation across its countries in terms of stage of development, demographics, agricultural resources and public policies. The region's population is slowly growing; static in Western Europe, shrinking in Eastern Europe, growing at just less than 1% p.a. in Central Asia. The region is highly urbanised and by 2029 75% of its population will live in urban environments.

Average income in the region is greater than USD 25 000, but there are substantial differences across countries. While the economies of Western Europe are diverse, those in more eastern regions are focused on commodities, particularly in the Russian Federation where oil and gas are critical sectors. The share of primary agriculture, forestry and fish production in total GDP is low, ranging from just 1.4% in the European Union, to 11% in Ukraine. It is estimated that the share of food in household expenditures averaged about

12% in the region in 2017-19 base period, ranging from around 6% for United Kingdom to around 21% in Central Asian countries such as Kazakhstan.<sup>2</sup>

The region produces 17% of the global value of agricultural and fish production, a share which has been declining over time, largely due to slow growth in Western Europe over the past 20 years. Crop production averages about 56% of the net value of total production, fish about 8%, and livestock the remainder of about 36%. Whereas the region accounted for 12% of the total growth in the global net value of agriculture and fish in the last decade, it accounted for 22% of growth in global exports. This growing export orientation is largely driven by Eastern Europe where productivity levels in both the crop and livestock sectors have improved but static population and relatively mature consumption levels mean demand growth has been weak. Trade within the region is affected by various uncertainties, notably concerning the outcome of negotiations to determine future trading arrangements between the United Kingdom and the European Union and the Russian embargoes on imports from the European Union that have been continuously renewed since 2014.

Relative to other regions, livestock and animal products are important in both production and consumption. They constitute one third of the net value of agriculture and fish production. On the consumption side, calories and proteins from animal products comprise 21% and 51% respectively of total availability. The subregion of Western Europe is a very large producer, consumer and trader of milk and dairy products, and while its share of global milk production is falling over time, production and trade of high value products such as cheese are growing. Per capita fresh dairy product consumption is twice the world average and cheese in particular is four times higher.

### ***Production***

The net value of agriculture and fish production (net of feed and seed inputs) is projected to grow 8% by 2029 compared to the base period average of 2017-19, with Western Europe growing by less than 2% compared to growth in Eastern Europe of 18% and Central Asia of 19%. Eastern Europe's strong growth will be led by the Russian Federation and Ukraine at 12% and 26% respectively, driven by strong growth in the crop sectors of these countries, although the Russian sector is anticipated also to show strong growth in meat production, given the impact that import embargoes have had on domestic markets to stimulate local production.

Productivity improvements will underlie growth in the sector, with agricultural land use in the region projected to continue its contraction of the last ten years. By 2029, a marginal increase in cropland use is projected to be more than offset by a reduction in pasture area. In relation to changes in land use, direct GHG emissions from agriculture are projected to decline 2% over the next decade.

Crop production in the region is expected to expand by 11% over the next decade, accounting for more than half of the region's growth in agricultural and fish production. This expansion will be largely due to rising cereals and oilseeds output in the Black Sea region. The Russian Federation and Ukraine are projected to sustain robust growth in maize, wheat, soybean and other oilseeds to increase their share in regional production to 38% for maize, 36% for wheat and 54% for all oilseeds. Yield improvements will drive nearly all production growth in these commodities.

Livestock production is projected to grow more slowly at 0.6% p.a. over the next decade, and will be based on intensified production resulting in higher carcass weights. Nonetheless, a slower expansion of meat production is expected to take place, as demand for meat will remain stagnant for bovine and porcine meats. Poultry production is expected to rise across the region over the outlook period. Most poultry will be produced to supply the domestic market and per capita consumption will rise by nearly 2 kg/capita to an average consumption of 28 kg/capita per year.

Production of dairy products is projected to accelerate, with a more rapid expansion of cheese and whole milk powder relative to the last decade. Domestic food demand for dairy products will remain strong,

contributing 22% of daily calories toward diets across the region. However, the dairy output expansion will increasingly feed international demand – an increasing share of the region’s butter, cheese and milk powders is expected to be exported over the next decade. The region will remain a leading source of dairy production in the world, led largely by Western Europe whose global share of milk production still exceeds 20%. The region as a whole will account for 40% of global cheese and skim milk powder production, and over 25% of global butter production by 2029.

### **Consumption**

Daily per capita calorie availability in the region is projected to increase by 45 kcal/day to almost 3 430 kcal/day mainly due to increases in cereal and pulse consumption, and small increases in meat and dairy products. Food demand for sugar is projected to continue to contract as consumers in Europe seek to curb high consumption levels amid increasing health consciousness. Western Europe’s sugar consumption per capita is projected to fall by 1 kg per year to 34 kg in 2029, but this is still over 40% higher than the world average. Vegetable oil consumption is also expected to fall marginally over the next decade reducing its contribution to regional diets.

Protein availability per capita in the region is projected to increase by 3 g/day to 105 g/day by 2029, which is almost 25% higher than the world average of 85 g/day. Pulse consumption, which has been rising rapidly from a low base in the last decade given its positive health image, is projected to rise 12% to 4kg per capita by 2029. Per capita meat consumption may rise slightly to 57 kg/capita per year, largely due to higher poultry meat consumption, which is anticipated to be the fastest growing meat item, reaching 28 kg per capita. Bovine and pigmeat consumption per capita is anticipated to decline over the period. Fish consumption is projected to rise slowly over the outlook period, with per capita levels 2.2 kg below the global average.

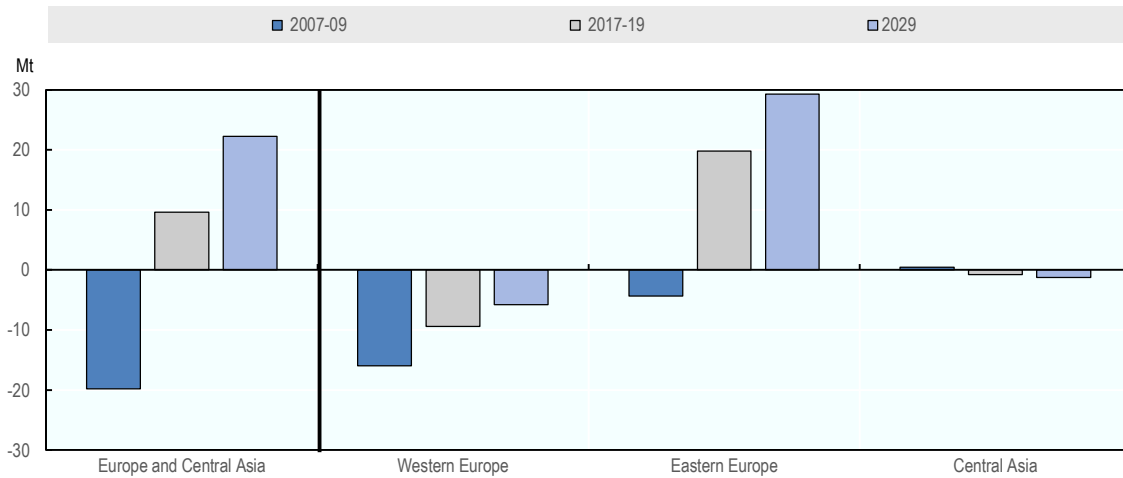
Owing largely to the importance of animal products, the region consumes almost one quarter of global protein feed. With slow growth projected for the livestock sector, with an increasing poultry, but declining pigmeat sector, feed use is anticipated to increase only 4% by 2029 over the base period, with increases in maize and protein meals offset by a decline in wheat feed.

Non-food demand for vegetable oil is expected to contract as its role in biofuel production in the European Union will diminish. The region is moving towards second generation – non-food – feedstocks for biodiesel and is also decreasing its demand for diesel. The region’s production of biodiesel is therefore projected to contract 10% by 2029, reducing its share of global biodiesel production from 36% to 28%.

### **Trade**

Prior to 2014, the region as a whole was a large net importer of agricultural commodities. However, due to rising exports from Eastern Europe, particularly Russian Federation and Ukraine, the region is emerging as the third main net-exporting region of the world. The reasons for this are rising productivity, but also slow domestic demand growth given already high consumption levels, and slow population growth. With a large land base, both Eastern Europe and Central Asia have a comparative advantage in cereal and oilseed production.

Figure 2.1. Net exports of agriculture and fish products from Europe and Central Asia



Source: OECD/FAO (2020), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink  <https://doi.org/10.1787/888934141912>

The region's cereal exports will grow from 151 Mt in the base period to 193 Mt in 2029, an increase of 28%, with the Near East and North Africa region as a major importer. Its market share in cereal exports is projected to reach 38%, its highest ever. The region's wheat export share will rise to 56%, with exports of 117 Mt. Maize exports may reach almost 50 Mt, or 25% of world maize trade by 2029. On the import side, soybean and protein meal imports are anticipated to remain steady around 27 Mt and 32 Mt, respectively, keeping the region one of the major importers of these products.

The region is a major gross exporter pigmeat and poultrymeat with global shares of 43% and 27% respectively. However, with extensive internal regional trade these shares on a net export basis fall to 23% and 8%, indicating the importance of internal trade to the region. In this context, the future status of the Russian Federation's import embargo will affect trade inside and outside the region. The region is the most important dairy product exporter, with shares in global dairy products remaining high or rising, with cheese, SMP and butter exports reaching 63%, 42% and 47% respectively.

Figure 2.2. Change in area harvested and land use in Europe and Central Asia

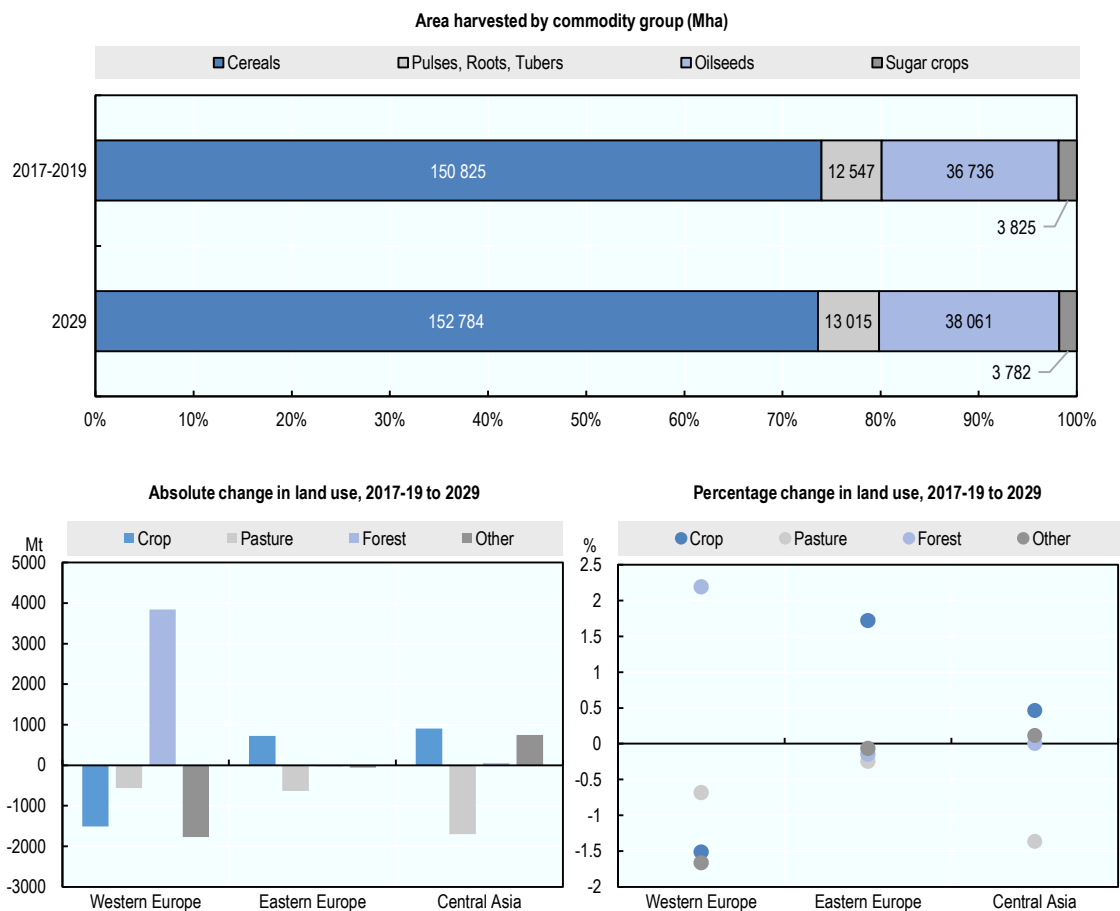
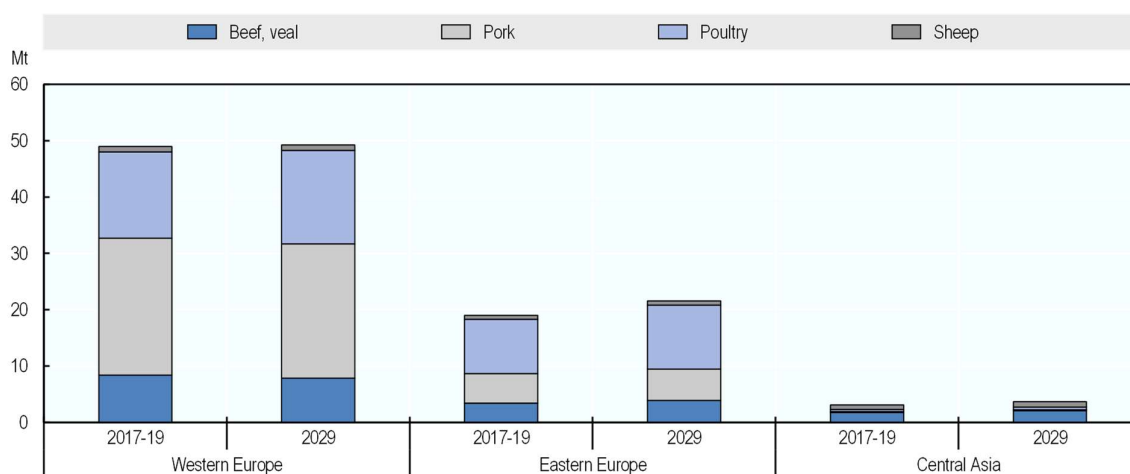
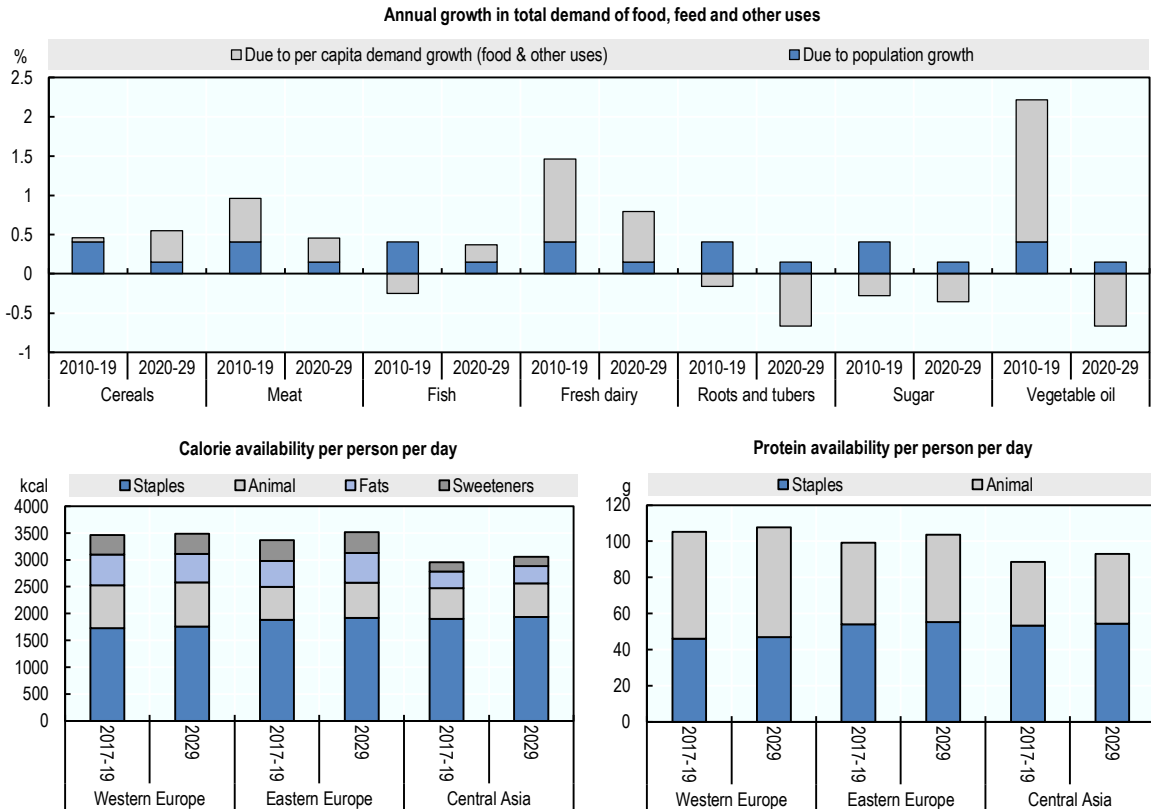


Figure 2.3. Livestock production in Europe and Central Asia



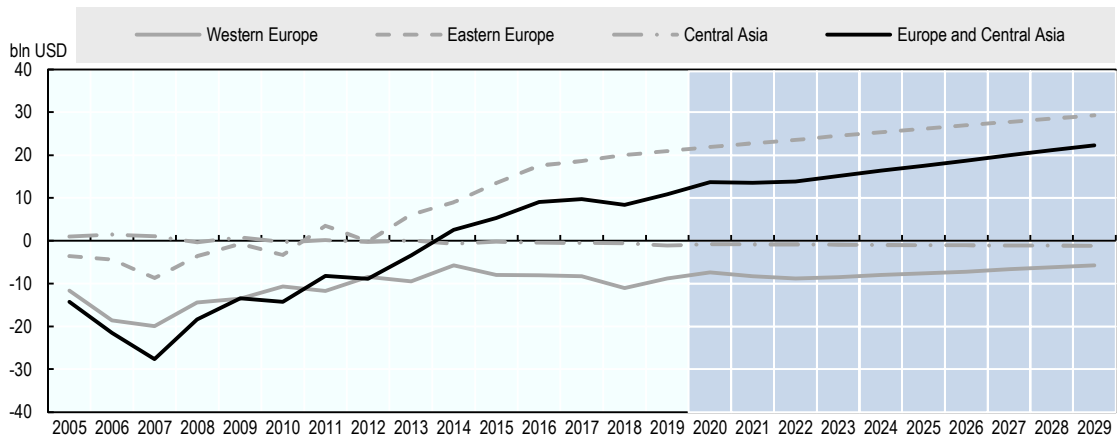
Source: OECD/FAO (2020), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-out-data-en>.

**Figure 2.4. Demand for key commodities and food availability in Europe and Central Asia**



Note: Upper panel – population growth is calculated by assuming per capita demand remains constant at the level of the year preceding the decade. Lower panel – Fats: butter and oils. Animal: egg, fish, meat and dairy except for butter. Staples: cereals, pulses and roots.

**Figure 2.5. Agricultural trade balances by region**



Note: Net trade (exports minus imports) of commodities covered in the Agricultural Outlook, measured at constant 2004-06 USD.  
 Source: OECD/FAO (2020), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

StatLink  <https://doi.org/10.1787/888934141931>

Table 2.1. Regional indicators: Europe and Central Asia

	Average		2029	%	Growth <sup>2</sup>	
	2007-09	2017-19 (base)			Base to 2029	2010-19
<b>Macro assumptions</b>						
Population	889 018	925 930	940 149	1.54	0.41	0.09
Per capita GDP <sup>1</sup> (kUSD PPP)	24.48	27.28	32.65	19.70	1.45	1.73
<b>Production (bln USD)</b>						
Net value of agricultural and fisheries <sup>3</sup>	406.0	465.1	504.0	8.36	1.42	0.68
Net value of crop production <sup>3</sup>	104.4	125.9	141.2	12.19	2.76	1.06
Net value of other not incl. crop production <sup>3</sup>	125.0	130.8	140.5	7.49	-0.14	0.63
Net value of livestock production <sup>3</sup>	142.3	169.0	180.4	6.73	1.77	0.45
Net value of fish production <sup>3</sup>	34.3	39.4	41.8	6.02	1.50	0.63
<b>Quantity produced (kt)</b>						
Cereals	513 673	581 353	650 784	11.94	2.33	1.00
Pulses	6 709	9 562	12 411	29.79	3.15	2.32
Roots and tubers	28 765	29 623	28 355	-4.28	1.23	-0.19
Oilseeds <sup>4</sup>	47 484	78 291	88 449	12.97	5.01	1.16
Meat	58 664	71 099	74 480	4.75	1.99	0.28
Dairy <sup>5</sup>	24 314	28 971	32 207	11.17	1.75	0.98
Fish	16 785	19 228	20 376	5.97	1.49	0.63
Sugar	25 279	31 270	31 832	1.80	1.91	0.90
Vegetable oil	21 709	32 944	36 039	9.40	4.12	0.87
<b>Biofuel production (Mn L)</b>						
Biodiesel	7 956	15 522	13 908	-10.39	4.48	-1.22
Ethanol	5 325	8 264	8 120	-1.74	2.02	-0.65
<b>Land use (kha)</b>						
Total agricultural land use	802 550	801 440	798 650	-0.35	-0.05	-0.03
Total land use for crop production <sup>6</sup>	339 702	335 102	335 213	0.03	-0.02	-0.01
Total pasture land use <sup>7</sup>	462 848	466 339	463 437	-0.62	-0.08	-0.05
<b>Direct GHG emissions (Mt CO<sub>2</sub>-eq)</b>						
Total	682	708	696	-1.69	0.60	-0.15
Crop	197	216	211	-2.55	1.05	-0.17
Animal	485	492	485	-1.30	0.41	-0.14
<b>Demand and food security</b>						
Daily per capita caloric availability <sup>8</sup> (kcal)	3 332	3 383	3 451	2.01	0.20	0.25
Daily per capita protein availability <sup>8</sup> (g)	100	102	105	3.15	0.11	0.30
<b>Per capita food availability (kg)</b>						
Staples <sup>9</sup>	168.8	170.1	172.3	1.27	0.15	0.12
Meat	55.1	58.7	60.7	3.38	0.80	0.30
Dairy <sup>5</sup>	24.5	27.4	29.5	7.81	1.12	0.73
Fish	18.9	18.3	19.2	4.72	-0.10	0.44
Sugar	36.0	35.0	33.7	-3.50	-0.65	-0.19
Vegetable oil	22.0	24.3	23.9	-1.49	2.95	0.45
<b>Trade (bln USD)</b>						
Net trade <sup>3</sup>	-19.8	9.7	22.3	130.59	..	..
Net value of exports <sup>3</sup>	53.9	86.4	100.0	15.76	4.56	1.22
Net value of imports <sup>3</sup>	73.8	76.7	77.7	1.29	0.52	0.13

	Average			%	Growth <sup>2</sup>	
	2007-09	2017-19 (base)	2029		Base to 2029	2010-19
<b>Self-sufficiency ratio<sup>10</sup></b>						
Cereals	108.5	119.0	126.6	6.3	1.21	0.42
Meat	95.3	105.0	105.1	0.1	0.86	-0.09
Sugar	80.7	96.3	100.2	4.0	2.54	1.01
Vegetable oil	73.2	89.9	103.2	14.7	1.47	1.03

Notes: 1. Per capita GDP expressed in thousands of real USD. 2. Least square growth rates (see glossary). 3. Net value of agricultural and fisheries output follows FAOSTAT methodology, based on the set of commodities represented in the Aglink-Cosimo model valued at average international reference prices for 2004-06. Projections for not included crops have been made on the basis of longer term trends. 4. Oilseeds represents 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 represent availability, not intake. 9. Staples represents cereals, oilseeds, pulses, roots and tubers. 10. Self-sufficiency ratio calculated as Production / (Production + Imports - Exports).

Source: OECD/FAO (2020), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database),

<http://dx.doi.org/10.1787/agr-outl-data-en>.

## Notes

<sup>1</sup> For mentioned regions, see Summary table for regional grouping of countries.

<sup>2</sup> These share data are extrapolated from Global Trade Analysis Project database, 2011, using food expenditure and GDP data from the *Outlook* database.