2. Regional briefs

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.

2.4. Regional outlook: Near East and North Africa

Background

The Near East and North Africa[1] region is a difficult environment for agriculture and fish production. Land and water resources in the region are low. Less than 5% of land is arable. All countries in the region, except for Iran, Iraq, and Mauritania face water scarcity, and for some countries water scarcity is extreme, at less than one quarter of sustainable levels on a per capita basis.

The countries of the region have diverse income and resource profiles. Among them are least developed, middle income, and high income oil exporting countries in the Gulf. As one of the highest food net importing regions, and the highest in terms of net imports per capita, self-sufficiency rates for most commodities are low, particularly for cereals. It faces significant uncertainties on both the supply and demand side, and these uncertainties raise concerns regarding reliable access to basic foods. The limited land and water resources that are characteristic of most countries in the region constrain growth and have been further stretched by policy incentives that have sought to increase production to limit the deficit in cereal trade. On the demand side, uncertainties abound with geopolitical conflict that hinders production, reduces needed investments and induces displacement of populations. Furthermore, revenues from oil exports are the main source of the region's income and unstable energy markets affect economic activity including consumption and investment. With food expenditures around 16% of total household expenditures, income and price shocks can have an important impact on welfare.[2]

Population growth, which exceeded 20% in the last decade, is the key source of additional demand. It will grow further by 1.5% annually over the next decade. Three-quarters of the additional population will be urban which may encourage consumption of higher value products, including those that include vegetable oil and sugar, but also meat and dairy products. Per capita incomes in the region are assumed to grow only 1% p.a., and will not constitute a major driver of demand over the next ten years.

Egypt and Iran produce 50% of the net value of agriculture and fish production in the region, and their shares are expected to increase marginally while the Other North Africa region produces 25%, the least developed countries 8% and remaining countries about 17%. Gross domestic product in the agriculture, forestry and fishery sector is currently about 5.3% of total GDP in the region, and this share will shrink to 4.7% by 2029.

Fish production is about 12% of total net agricultural and fish production. Capture in coastal areas has grown most recently, but fish stocks are under pressure. Aquaculture is growing but limited to key rivers in Egypt and Iran.

Production

Agricultural and fish production in the region is projected to expand by 1.5% p.a. over the next ten years, marginally below population growth of 1.6%, implying increasing dependency of the region on the global markets. Crop production share of production will remain at 63% of total net value, as it grows 1.5% p.a. while livestock grows at 1.4% p.a. and fish at 1.5% p.a. over the next decade.

Land use under crops will increase marginally as pasture declines. Land use in cereal production is projected to remain unchanged at 50% of total crop use, while wheat's share of cereals may increase to 43%. Total area harvested in the region is expected to remain stagnant, and yield improvements will account for all crop production gains, with wheat, maize and rice yields growing at 0.7%, 1.5% and 1.5% p.a. respectively. Wheat yields will remain at 70% of the global average, while maize yields will remain close to global average.

Poultry production will grow faster than the production of other meat products at 1.9% p.a., down from 2.6% p.a. in the last decade, while bovine meat production is anticipated to grow 1.2% p.a. again in the next ten years. These rates of growth will help to curb the longer term decline in meat self-sufficiency.

With 1.6% annual growth in livestock production, the region's GHG emissions from livestock activities will expand only 3% by 2029 compared to the base period. Emissions from ruminants, such as cows and sheep, are expected to decline due to a decrease in herd size, but emissions from poultry are expected to increase in step with its production. Total GHG emissions in the region are projected to expand 3% by 2029.

Consumption

Food policies in the region have focused also on food security by supporting consumption of basic foodstuffs, primarily cereals. Average calorie availability in the region will average almost 3 100 kcal/day by 2029, an increase of 41 kcal/day from the base period, and marginally higher than the global average of 3 014 kcal/day.

The projection for the average diet in the region indicates about 54% of calories will come from cereals by 2029, down 1% from the base period. This compares to the world average of 44%. A similar phenomenon applies to sugar consumption, where the regions sugar calorie share of the total will be 10% compared to a global average of 7%. This diet, which relies on starchy foods and sugar, is associated with a rising incidence of over-weight and obesity, and various noncommunicable diseases such as diabetes. With undernourishment remaining prevalent in certain countries, the “triple burden” of malnutrition will be a policy challenge over the medium term.

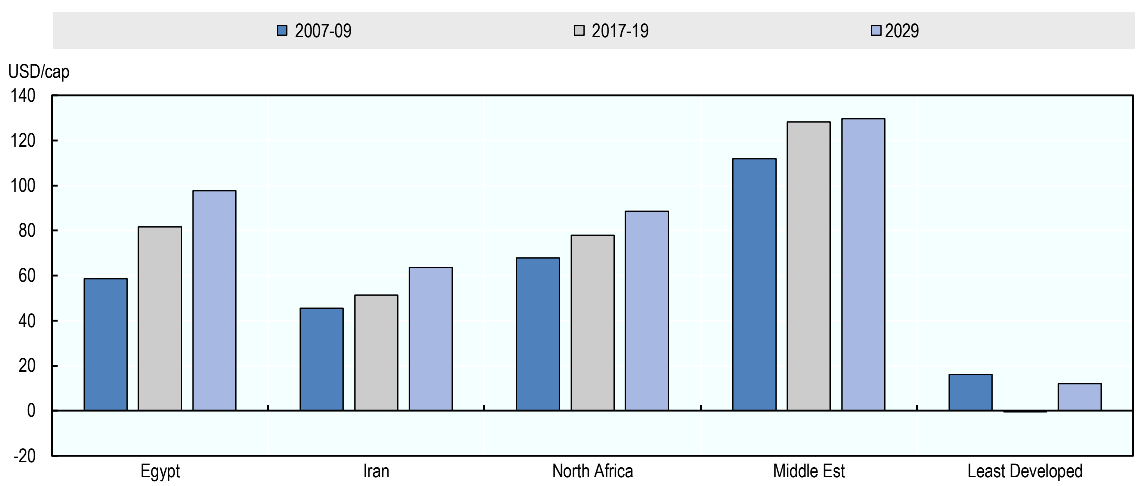
The average level of protein availability in the region is projected to be 85 g/day in 2029, up only 0.8 g/day from the base period. A fall in protein from cereal consumption is expected to be more than offset by rises from meat and fish sources and from pulses. Protein availability in the region will be similar to the global average.

The growth of the livestock sector will increase feed use. Three commodities, maize, barley and protein meals are expected to account for about 75% of the total feed use, with imports accounting for about 90% of feed demand. This trend reflects policies that prioritise the production of food crops over feed crops. The region is a large importer of animal feed and will import 47 Mt of maize by 2029 compared to 36 Mt in the base period.

Trade

The region’s strong population growth together with limited production capacity will drive higher food imports over the projection period. The region is expected to remain the second largest importer of food following the Asia and Pacific region but on a per capita basis will be the largest. Within the region, food imports per person are highest in the Other Middle East area, which includes the Gulf States, followed by Egypt and other countries of North Africa.

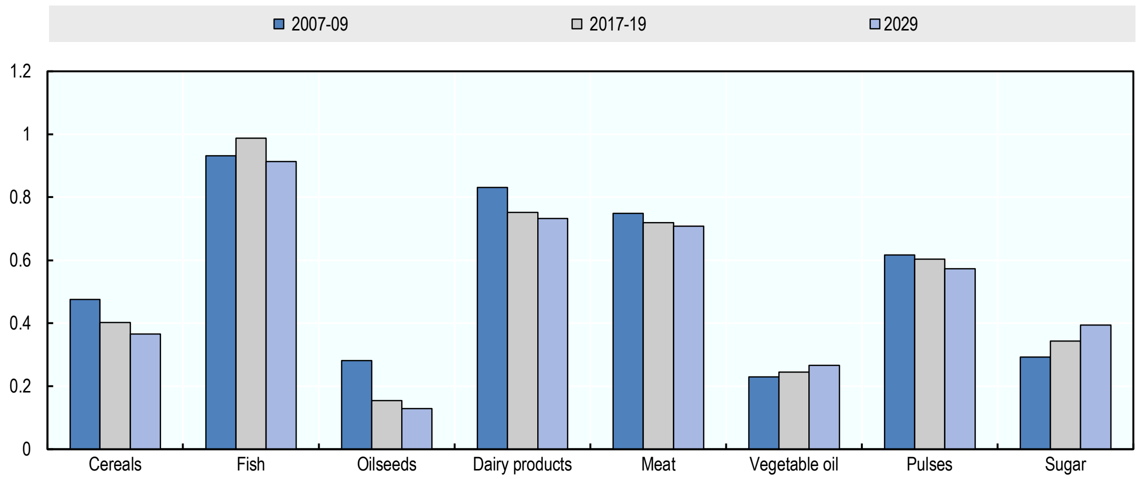
Figure 2.1. Value of net food imports per capita in Near East and North Africa



Note: Values in 2004-06 constant.
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/10.1787/888934141836

The regions imports will increase for almost all commodities and, with the exception of fish and meat products, self-sufficiency ratios will remain low and possibly continue their long-term decline, as seen in Figure 2.2. The region’s imports will maintain high shares of certain global markets such as maize, other coarse grains and wheat which will rise to 24%, 46% and 28% respectively by 2029. The region’s imports will also account for 20% of global trade in poultry meat and cheese, and 35% of sheep meat trade.

Figure 2.2. Self-sufficiency rates for selected commodities in Near East and North Africa



Note: Self-sufficiency is calculated by dividing quantity produced by quantity consumed.
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/10.1787/888934141855

Figure 2.3. Change in area harvested and land use in Near East and North Africa

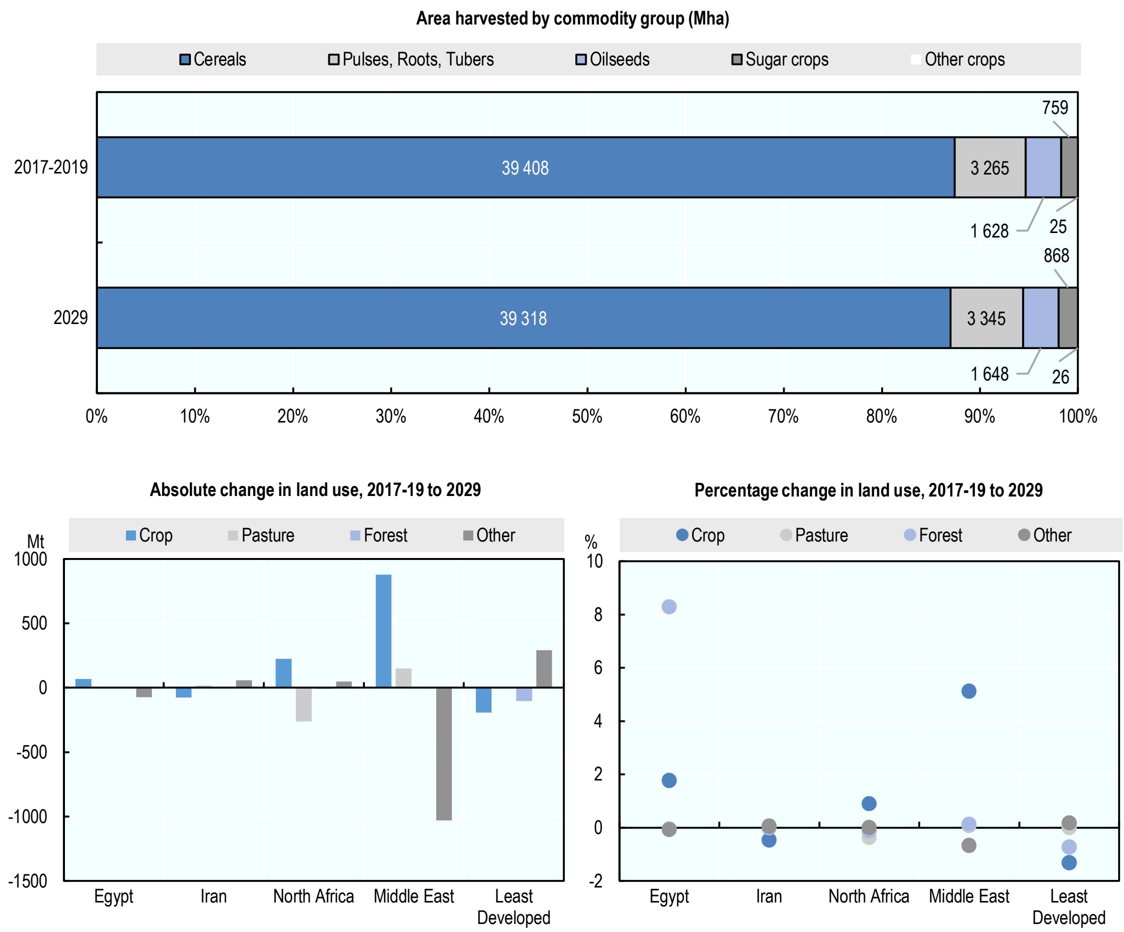
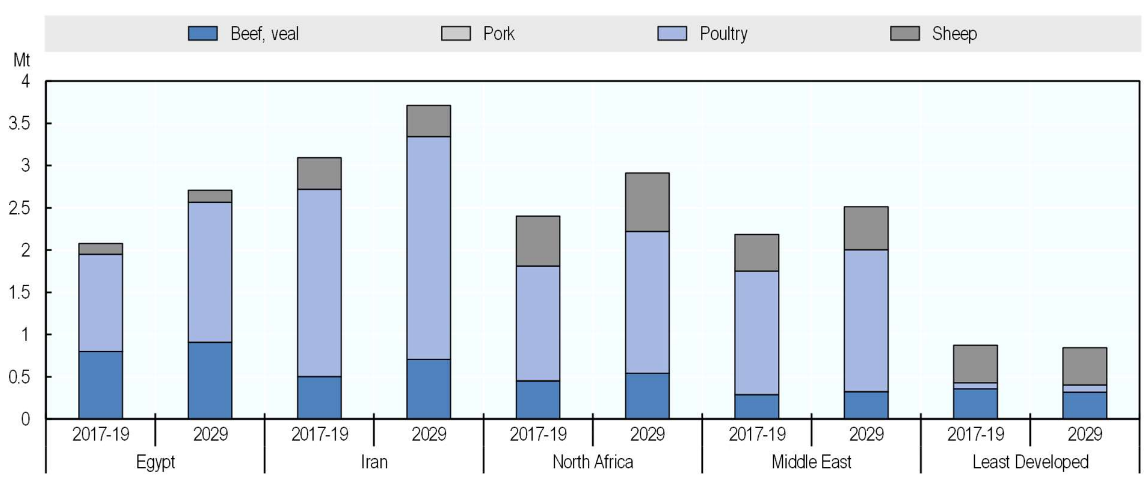


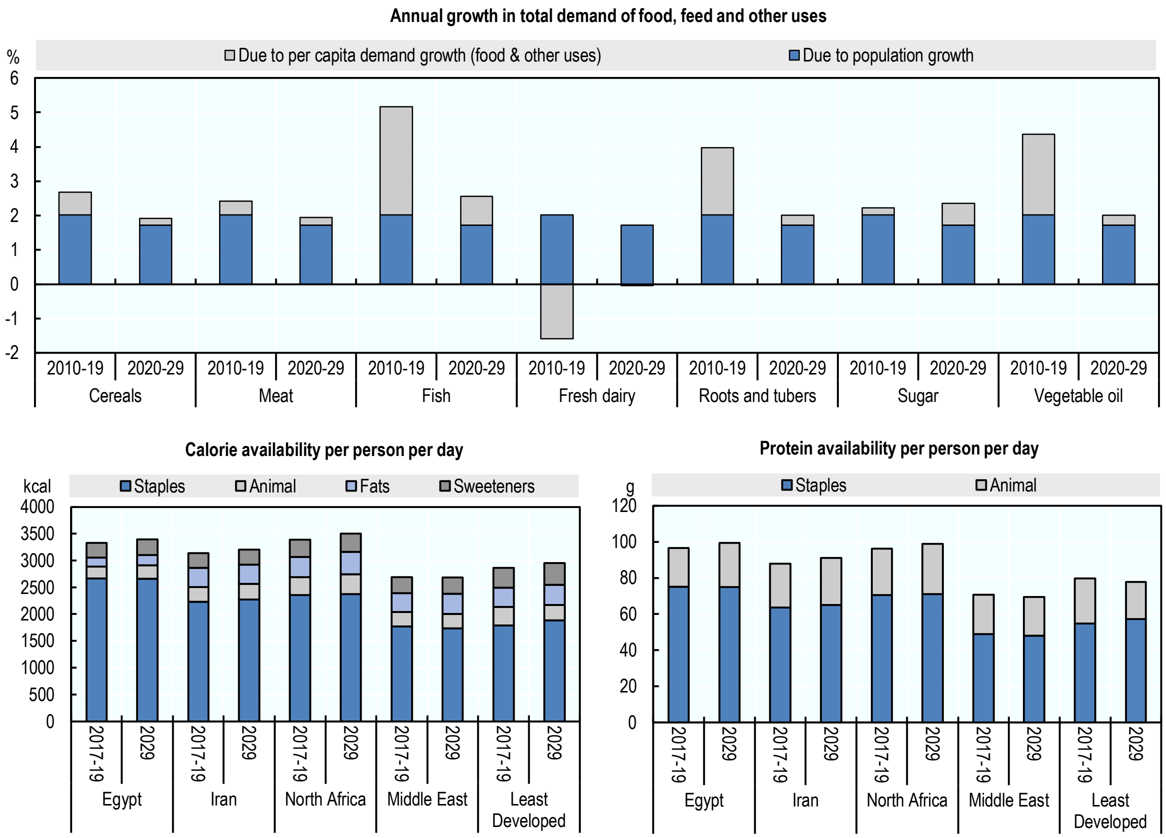
Figure 2.4. Livestock production in Near East and North Africa



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

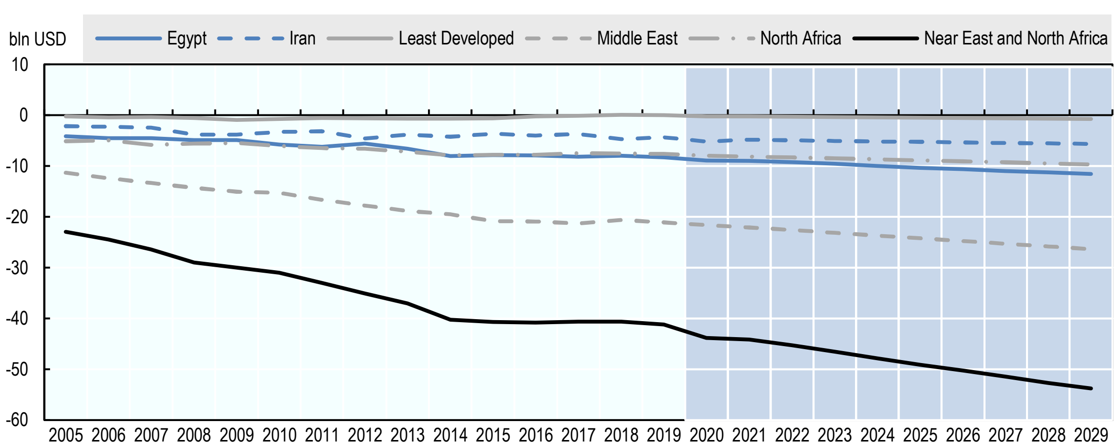
StatLink https://doi.org/10.1787/888934141874

Figure 2.5. Demand for key commodities and food availability in Near East and North Africa



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 2.6. Agricultural trade balances in Near East and North Africa



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/10.1787/888934141893

Table 2.1. Regional indicators: Near East and Northern Africa

	Average			%	Growth [2]	
	2007-09	2017-19 (base)	2029	Base to 2029	2010-19	2020-29
Macro assumptions						
Population	399 638	487 741	578 229	18.55	1.93	1.53
Per capita GDP[1] (kUSD PPP)	10.05	10.48	11.45	9.20	0.33	1.00
Production (bln USD)						
Net value of agricultural and fisheries[3]	94.9	112.7	133.4	18.32	1.62	1.64
Net value of crop production[3]	14.2	15.8	17.9	13.56	1.09	1.27
Net value of other not incl. crop production[3]	47.2	55.4	67.0	20.89	1.57	1.85
Net value of livestock production[3]	25.7	27.8	32.1	15.61	0.29	1.38
Net value of fish production[3]	7.9	13.8	16.4	18.88	5.88	1.71
Quantity produced (kt)						
Cereals	64 858	71 540	78 562	9.82	0.97	0.98
Pulses	1 970	2 708	3 187	17.70	2.41	1.57
Roots and tubers	3 210	4 670	5 721	22.49	2.79	1.81
Oilseeds[4]	1 584	1 720	2 023	17.56	1.91	1.49
Meat	8 715	10 628	12 696	19.46	1.71	1.56
Dairy[5]	4 460	4 245	4 926	16.05	-1.11	1.51
Fish	3 822	6 713	7 978	18.84	5.90	1.71
Sugar	3 769	5 509	7 971	44.71	4.51	2.82
Vegetable oil	1 671	2 731	3 615	32.38	6.35	2.08
Biofuel production (Mn L)						
Biodiesel	0.02	0.02	0.02	13.93	0.00	1.36
Ethanol	257.8	170.2	191.9	12.76	-5.34	1.69
Land use (kha)						
Total agricultural land use	477 583	473 135	473 943	0.17	-0.20	0.02
Total land use for crop production[6]	80 622	77 009	77 908	1.17	-1.03	0.11
Total pasture land use[7]	396 961	396 126	396 035	-0.02	-0.03	0.00
Direct GHG Emissions (Mt CO2-eq)						
Total	249	199	204	2.62	-2.04	0.33
Crop	67	37	37	1.85	-4.84	0.46
Animal	181	162	167	2.79	-1.27	0.30
Demand and food security						
Daily per capita caloric availability[8] (kcal)	2972	3049	3090	1.34	-0.04	0.13
Daily per capita protein availability[8](g)	84	85	85	0.84	-0.32	0.10
Per capita food availability (kg)						
Staples[9]	221.5	220.5	218.1	-1.09	-0.01	-0.13
Meat	24.2	25.3	25.9	2.29	-0.04	0.30
Dairy[5]	13.4	11.6	11.6	0.44	-1.80	0.33
Fish	9.0	12.4	14.0	12.57	2.27	1.10
Sugar	32.2	32.9	35.0	6.37	0.36	0.64
Vegetable oil	11.5	13.7	14.7	6.99	2.46	0.63
Trade (bln USD)						
Net trade[3]	-28.5	-40.8	-53.8	31.91	..	..
Net value of exports[3]	6.2	8.9	8.5	-4.68	3.02	-0.27
Net value of imports[3]	34.7	49.7	62.3	25.38	3.08	2.03

	Average			%	Growth [2]	
	2007-09	2017-19 (base)	2029	Base to 2029	2010-19	2020-29
Self-sufficiency ratio[10]						
Cereals	47.2	40.7	36.4	-10.45	-1.46	-0.73
Meat	74.9	71.9	70.8	-1.47	-0.14	-0.26
Sugar	28.1	34.3	39.0	13.61	2.30	0.63
Vegetable oil	23.2	24.6	26.6	7.85	1.88	0.35

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

[1] Middle East: Saudi Arabia and Other Western Asia. Least Developed: North Africa Least Developed. North Africa: Other North Africa. For mentioned regions, see Summary table for regional grouping of countries.

[2] Source OECD-FAO interpolated for 2017-19 from the database of the Global Trade Analysis Project (GTAP) 2011, using food expenditure and GDP data used in this *Outlook*.