

Regional brief: Near East and North Africa

The *Outlook's* regional briefs highlight broad trends for the regions defined by the FAO in the implementation of its global workplan. Recognising the diversity across the regions, the intention is not to compare results across regions. Instead, these briefs illustrate some of the latest regional developments, highlighting responses to global challenges and emerging trends within them and relating these to the main messages of the *Outlook* publication. The assessments generally compare the end point of the *Outlook's* projection (2030) to the base period of 2018-20. These briefs acknowledge that the impact of the COVID-19 pandemic, which is still playing out globally, and the response to it differs across the regions. The briefs do not contain a specific quantitative assessment of the pandemic's impact, but they reflect the latest available macro-economic projections and the extent to which the actions imposed to curb the spread of COVID-19 influenced this environment. Consequently, the trends and issues presented in this chapter are those which are expected to underpin the *Outlook* as economies re-emerge from the unexpected shock of the novel corona virus, assuming that its effects on food production, consumption and trade will gradually moderate.

Background

The Near East and North Africa¹ region is a challenging environment for agriculture and fish production. Its endowment of land and water resources is limited, with less than 5% of land considered arable. All countries in the region, except for Iraq and Mauritania face water scarcity, and for some countries this water scarcity is extreme, at less than one quarter of sustainable levels on a per capita basis.

The region encompasses a broad range of countries, exhibiting diverse income and resource profiles. Among them are least developed, middle income, and high income oil exporting nations in the Gulf. As one of the highest net food importing regions, self-sufficiency rates for most commodities are low, but particularly for cereals, vegetable oils and sugar. Uncertainties abound on both the supply and demand side, which raises concern regarding reliable access to basic foods. The COVID-19 pandemic and related restrictions on economic activity revealed vulnerabilities in global trade logistics, while policy responses to curtail exports from some key suppliers influenced cereal prices in the short term. Within the region, the limited land and water resources that are characteristic of most countries constrain growth and have been further stretched in some countries by policy incentives that sought to increase production and limit the deficit in cereal trade. Cereal production often competes with higher value crops for water. Geopolitical conflict further hinders agriculture and fish production, reduces needed investments and induces displacement of populations. Furthermore, in a region where oil export revenues represent the main source of income, unstable energy markets affect economic activity, including consumption and investment. With average food expenditures around 13% of total household expenditures, income and price shocks can have a meaningful impact on welfare.²

Population growth exceeded 23% in the past decade and constitutes a key source of additional demand. Growth of 1.7% annually over the next ten years will see the region's population approach 500 million people by 2030. More than half of the population is expected to reside in urban areas, which may encourage consumption of higher value products, including meat and dairy products, but also convenience products that contain vegetable oil and sugar. The strong reliance on oil export revenue implies that economies in the region were some of the most affected by the pandemic in 2020, with per capita GDP contracting by 8%. Activity is expected to remain constrained in 2021 and on average, over the coming decade, will only grow by 1.1% p.a. Consequently, it is unlikely to constitute a major driver of demand over the next ten years.

Egypt produces almost 30% of the net value of agriculture and fish production in the region, with a further 49% attributed to the rest of North Africa (15% from LDC's and 34% from other North Africa). These shares are expected to increase in the coming decade, such that North Africa will constitute almost 80% of net agricultural output value in the broader region by 2030. Gross domestic product in the agriculture, forestry and fishery sector is currently about 6% of total GDP in the region, and is expected to remain fairly stable over time.

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. The contribution of aquaculture to total fish production is growing, with Egypt the major contributor.

Production

Agricultural and fish production in the Near East and North Africa region is projected to expand by 1.5% p.a. over the next ten years, slightly slower than population growth of 1.7%. The region will therefore become increasingly dependent on global markets. Crop production contributes the bulk of total value, but average annual growth of 1.3% will see its share decline by 1 percentage point to 61% of total net value by 2030. Livestock production growth is stronger at 2.2% p.a., which will see its share in total net value increase to just over 27% by 2030. The value of fish production is set to expand by 1.2% p.a., the slowest of the three sub sectors over the coming decade.

Land use under crops will decline by 2030 relative to the base period, with the greatest share in Saudi Arabia, where conditions are not conducive to large scale cropping. Land utilized for cereal production is projected to account for almost 50% of total cropland by 2030, a minor increase from the base period. This increase comes primarily from coarse grains and wheat, which is expected to contribute 60% and 35% respectively to total land used for cereal production by 2030. Total area harvested in the region remains almost unchanged, increasing by merely 3% by 2030 due to higher crop intensity. Yield improvements will account for the majority of crop production gains, with wheat, maize, other coarse grains and rice yields growing at 0.9%, 0.7%, 1.3% and 1.1% p.a. respectively. Wheat yields will remain at 77% of the global average, while other coarse grain yields improve somewhat to almost 50% of the global average.

Growth in poultry production, at 3% p.a., will outpace all other meat products. Favourable progress is also expected for ovine meat production, at 1.5% p.a, while bovine meat production gains are slower at 1.1% p.a. Expansion in the poultry sector slows from the previous decade, whereas ovine meat production growth accelerates. Bovine meat production gains reflect a turnaround from the decline evident over the past decade. These rates of growth will help to curb the longer term decline in meat self-sufficiency.

With average annual growth of 2.3% and 2.0% for meat and dairy products respectively over the coming decade, GHG emissions from livestock activities in the region will expand by 4% by 2030 compared to the base period. Total GHG emissions in the region are projected to expand 3.5% by 2030.

Consumption

Food policies in the region have traditionally focused on food security by supporting consumption of basic foodstuffs, primarily cereals. In recent years, some policies have been expanded to include animal products. Since 2005 however, the prevalence of undernourishment has only declined modestly from 11% to 9% and even prior to the impact of the COVID-19 pandemic, the absolute number of undernourished people in the region has increased since 2015. This accelerated as a result of the pandemic in 2020, with increases in both the prevalence of undernourishment and the number of undernourished people in the region. As the economic recovery strengthens in the medium term, per capita calorie availability in the region is set to increase by 41 kcal/day by 2030 relative to the base period. This would enable the region to exceed 3050 kcal/person/day on average by 2030, marginally higher than the global average of 3 025 kcal/person/day. There is however great diversity within the region and despite gains of 106 kcal per person and day by 2030, the LDC's only reach 2700 kcal/person/day, roughly 11% below the global average.

The projection for the average diet in the region indicates about 55% of calories will come from cereals by 2030, down 1% from the base period. This compares to the world average of 44%. A similar phenomenon applies to sugar consumption, where the region's share of total calories derived from sugar 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 non-communicable diseases such as diabetes. Combined with the prevalence of undernourishment in certain countries, this suggests that 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 reach 85 g/day in 2030, up only 0.6 g/day from the base period. A fall in protein from cereal consumption is expected to be more than offset by growth from meat and fish sources, as well as pulses. Protein availability in the region increases at a slower rate than the global average and by 2030, will be 13% below the average levels available globally.

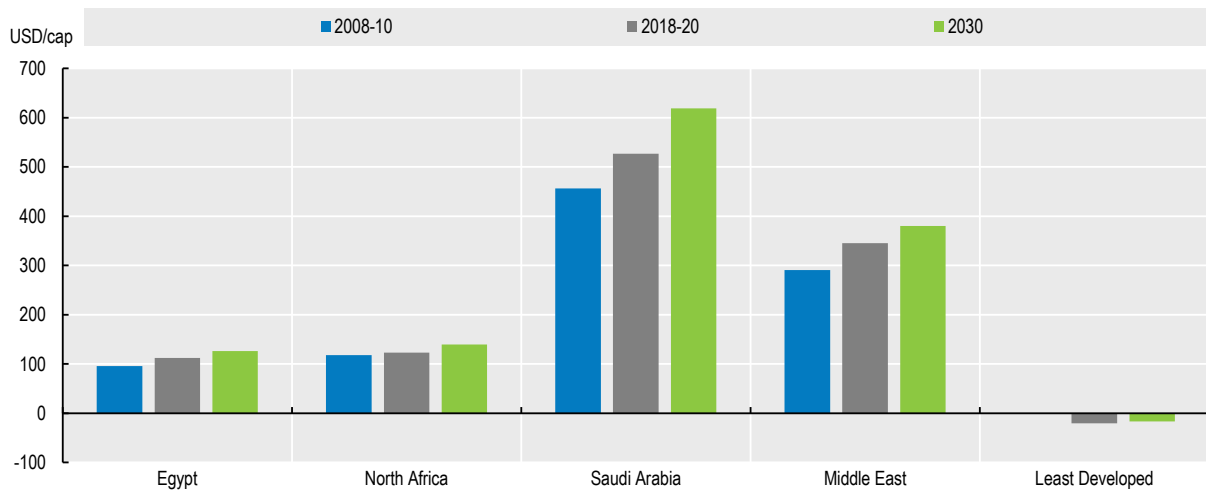
The growth of the livestock sector will increase feed use by 24% over the coming decade. Three commodities, namely maize, barley and protein meals, are expected to account for almost 80% of the total feed use. The bulk of feed materials will continue to be imported, with maize imports for example reaching 37 Mt by 2030 compared to 28 Mt in the base period. This trend reflects policies that prioritise the production of food crops over feed crops in an environment that has limited production potential.

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 become the second largest net 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 Saudi Arabia and the Other Middle East area which includes the Gulf States, followed by Egypt and other North African countries.

Amidst the logistical and economic challenges of the pandemic, the region's total import bill, expressed in real terms, increased further in 2020 relative to 2019. This trend is expected to continue over the coming decade. In line with growing demand, the region's imports will increase for almost all commodities and self-sufficiency ratios will continue their long term decline with the exception of meat products, vegetable oil and sugar. In the case of vegetable oil, this reflects increased processing of imported oilseeds, as the oilseed self-sufficiency ratio still deteriorates. The region's imports will maintain high shares of certain global markets such as maize, other coarse grains and wheat which will reach 18%, 32% and 27% respectively by 2030. The region's imports will also account for 37% of global trade in sheep meat, as well as 18% of cheese and 17% poultry meat traded globally by 2030.

Figure 1. Value of net food imports per capita in Near East and North Africa (including processed products)

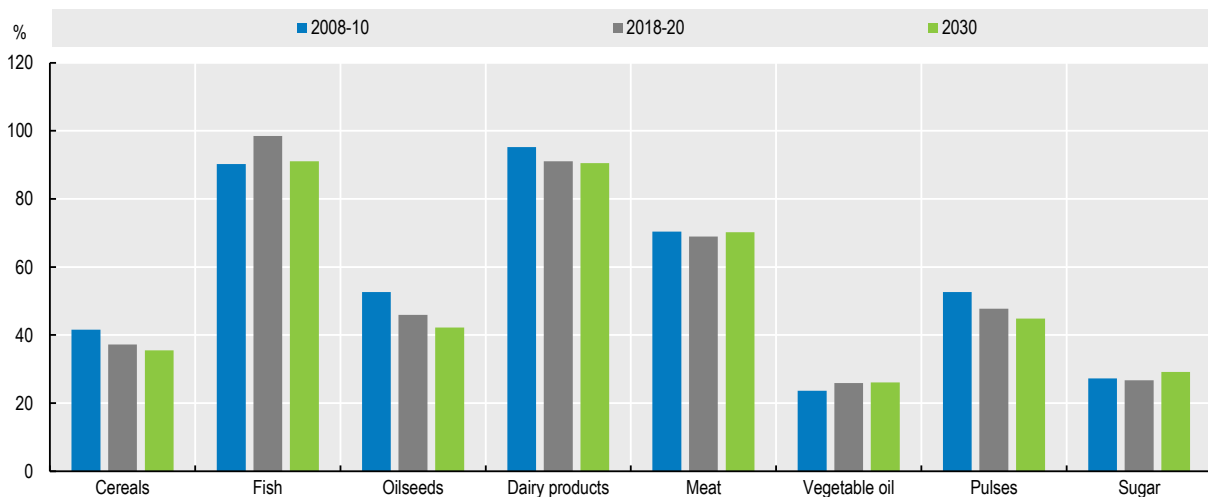


Note: Estimates are based on historical time series from the FAOSTAT Trade indices domain which are extended with the *Outlook* database. Products not covered by the *Outlook* are extended by trends. Total trade values include also processed products, usually not covered by the *Outlook* variables. Trade values are measured in constant 2014-2016 USD and trade values for fisheries (not available in the FAOSTAT trade index) have been added based on *Outlook* data.

Source: FAO (2021). FAOSTAT Trade Indices Database, <http://www.fao.org/faostat/en/#data/TI>; OECD/FAO (2021), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

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Figure 2. Self-sufficiency ratios for selected commodities in Near East and North Africa

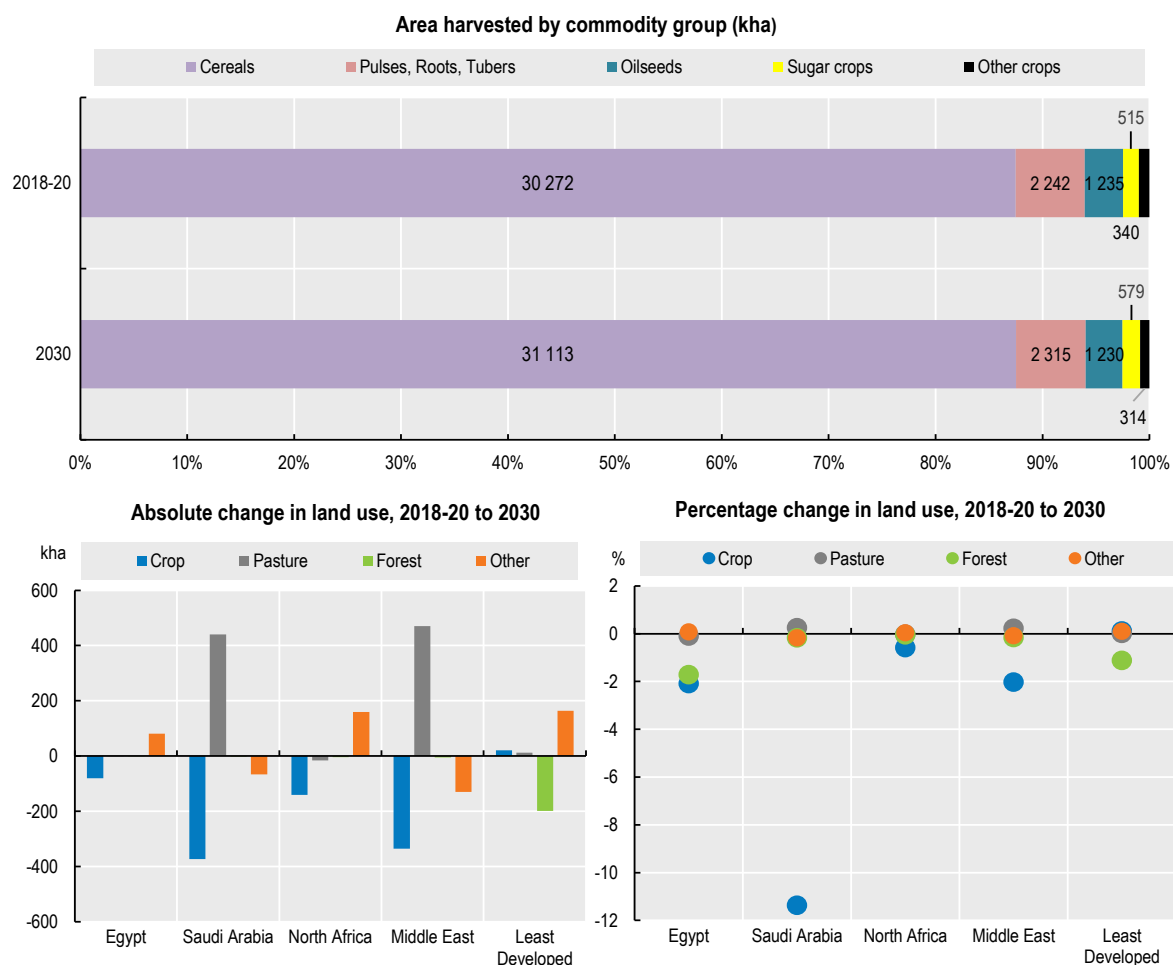


Note: Self-sufficiency ratio calculated as $\text{Production} / (\text{Production} + \text{Imports} - \text{Exports}) * 100$.

Source: OECD/FAO (2021), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

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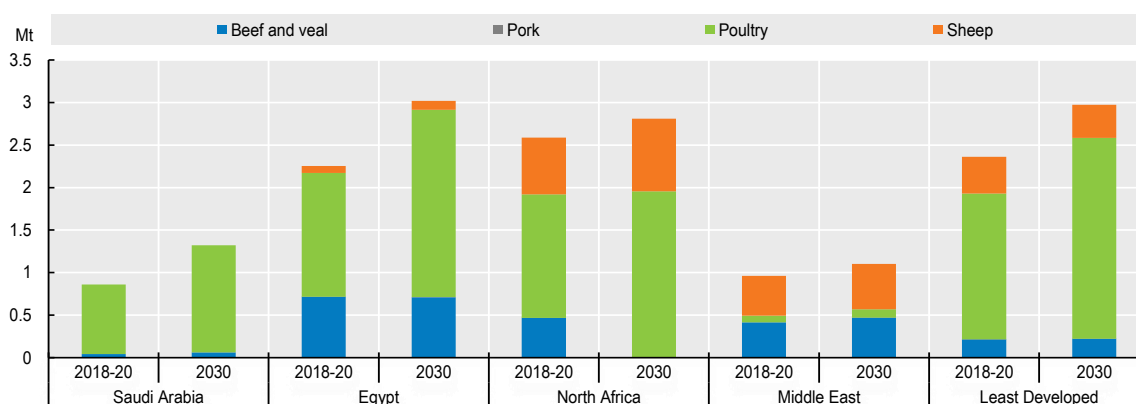
Figure 3. Change in area harvested and land use in Near East and North Africa



Source: OECD/FAO (2021), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

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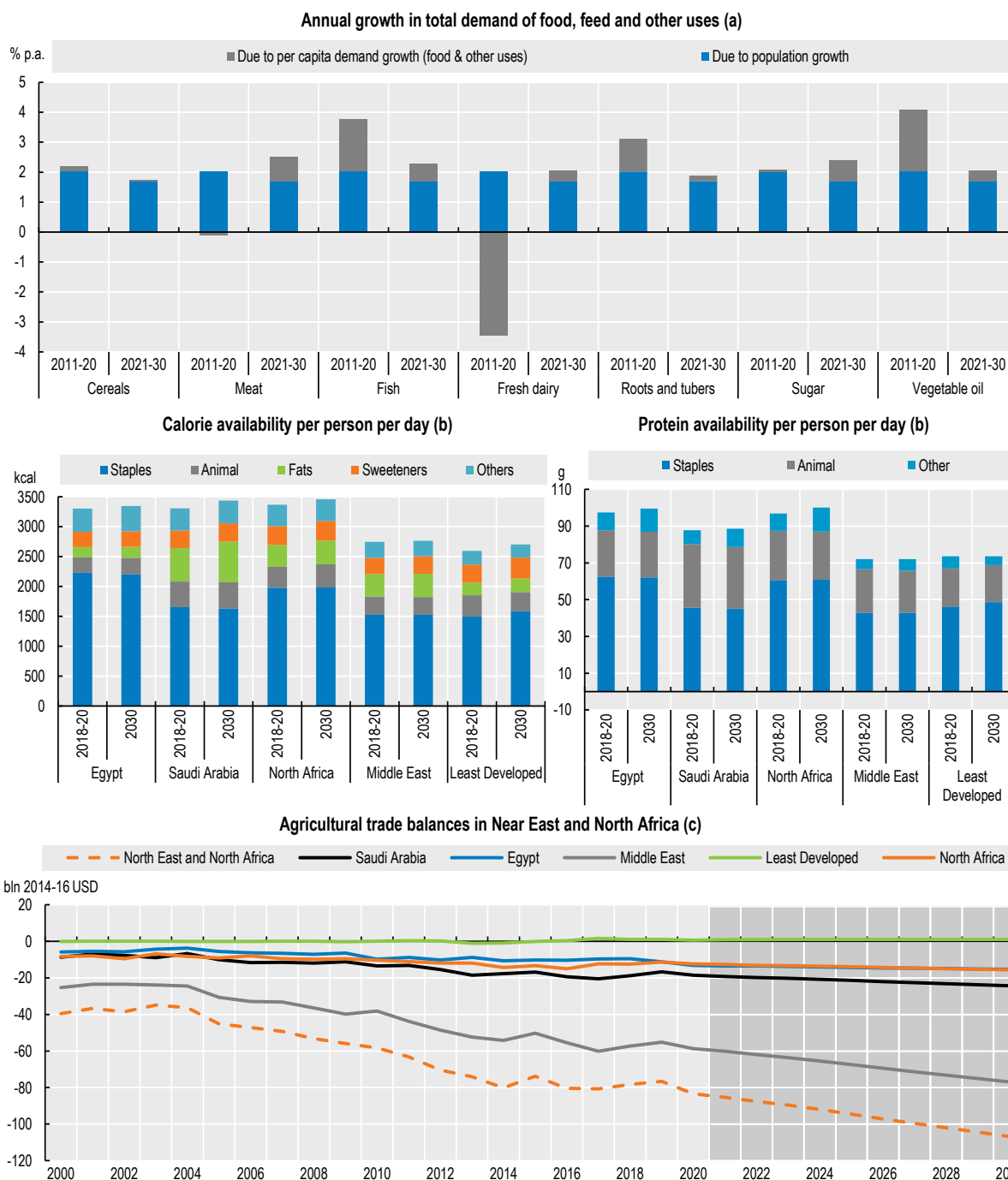
Figure 4. Livestock production in Near East and North Africa



Source: OECD/FAO (2021), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database), <http://dx.doi.org/10.1787/agr-outl-data-en>.

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Figure 5. Demand for key commodities, food availability and agricultural trade balance in North East and North 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.

Source: FAO (2021). FAOSTAT Value of Agricultural Production Database, <http://www.fao.org/faostat/en/#data/QV>; OECD/FAO (2021), "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: Near East and Northern Africa

	Average		2030	%	Growth ²	
	2008-10	2018-20 (base)		Base to 2030	2011-20	2021-30
Macro assumptions						
Population ('000)	333 439	410 958	496 138	20.73	2.02	1.69
Per capita GDP ¹ (kUSD)	6.14	6.35	6.67	5.03	-0.08	1.07
Production (bln USD)						
Net value of agricultural and fisheries ³	109.2	132.4	159.9	20.74	1.39	1.54
Net value of crop production ³	68.1	81.5	97.8	19.92	1.24	1.30
Net value of livestock production ³	31.4	35.1	43.6	24.36	0.22	2.24
Net value of fish production ³	9.6	15.8	18.5	16.93	5.42	1.24
Quantity produced (kt)						
<i>Cereals</i>	48 346	54 659	63 907	16.92	0.44	0.98
<i>Pulses</i>	1 442	1 651	1 944	17.79	0.76	1.70
<i>Roots and tubers</i>	2 533	3 778	4 701	24.43	2.66	2.09
<i>Oilseeds⁴</i>	1 022	1 066	1 181	10.85	0.16	1.27
<i>Meat</i>	6 552	8 164	10 501	28.62	2.23	2.30
<i>Dairy⁵</i>	3 528	3 150	3 770	19.68	-1.47	1.92
<i>Fish</i>	3 421	5 684	6 645	16.91	5.56	1.24
<i>Sugar</i>	2 895	3 664	5 218	42.43	2.03	3.29
<i>Vegetable oil</i>	1 415	2 325	2 892	24.40	6.13	1.88
Biofuel production (mln L)						
<i>Biodiesel</i>	0.02	0.02	0.02	15.39	0.00	1.35
<i>Ethanol</i>	256	161	188	16.64	-5.95	2.40
Land use (kha)						
Total agricultural land use	432 038	430 915	430 848	-0.02	0.02	0.00
Total land use for crop production ⁶	64 517	63 636	63 102	-0.84	0.16	-0.06
Total pasture land use ⁷	367 521	367 279	367 746	0.13	-0.01	0.01
GHG Emissions (Mt CO2-eq)						
Total	199	218	226	3.52	0.88	0.38
Crop	47	52	54	2.10	1.60	-0.10
Animal	151	166	172	3.97	0.65	0.54
Demand and food security						
Daily per capita caloric availability ⁸ (kcal)	2 956	3 013	3 054	1.37	-0.20	0.24
Daily per capita protein availability ⁸ (g)	83.3	84.6	85.2	0.7	-0.3	0.2
Per capita food availability (kg)						
<i>Staples⁹</i>	220.6	221.2	221.8	0.25	-0.03	-0.02
<i>Meat</i>	23.7	23.7	25.3	7.04	-0.38	0.85
<i>Dairy⁵</i>	13.1	10.7	11.1	3.64	-2.35	0.37
<i>Fish</i>	9	11	12	8.63	0.92	0.87
<i>Sugar</i>	32	33	36	7.55	0.06	0.74
<i>Vegetable oil</i>	12	14	15	9.21	1.47	1.03
Trade (bln USD)						
Net trade ³	- 56	- 79	- 107	34.34
Net value of exports ³	21.2	31	37	20.02	5.41	1.44
Net value of imports ³	77.1	110.1	144	30.35	2.95	2.25
Self-sufficiency ratio¹⁰						
<i>Cereals</i>	41.6	37.4	35	-5.2	-1.34	-0.67
<i>Meat</i>	69.3	70.4	70	-0.3	0.30	-0.21
<i>Sugar</i>	26.6	26.7	29	9.4	0.28	0.85
<i>Vegetable oil</i>	23.5	26.7	26	-2.1	2.2	-0.1

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. 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) * 100.

Source: OECD/FAO (2021), "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 of full publication 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*.