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FAO Statistical Yearbook 2014

Near East and North Africa food and agriculture

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Food and Agriculture

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Foreword

The Near East and North Africa region includes 19 countries that share a common cultural heritage but are very distinct from one another in their levels of development, their resource endowments and their potential for food and agricultural production. There are extremes of wealth and poverty among these countries. However, they are all addressing a common set of problems and challenges that could threaten their development prospects.

One of the primary challenges facing the region is overcoming hunger, food insecurity and malnutrition. Currently, there are 43.7 million undernourished people in the Near East and North Africa. Most of these people live in rural areas and rely on agriculture for their livelihoods. A wide range of interconnected issues challenge the region, including dwindling water and land resources, the gap between food needs and food production, increasing difficulties in balancing employment and income generation as populations expand, declining investment in the rural sector, increasing threats from environmental strain, natural and human-induced disasters, as well as the impacts of climate change.

Meeting these challenges with evidence-based policymaking will require timely statistical information from a wide range of fields. As a contribution to this effort, the Food and Agriculture Organization of the United Nations has prepared this Regional Yearbook for the Near East and North Africa. The Yearbook presents a visual synthesis of the major trends and factors shaping the regional food and agricultural landscape and their interplay with broader environmental, social and economic dimensions. In doing so, it serves as a reference document on regional food and agriculture for policymakers, donor agencies, researchers and analysts, and the general public.

Reliable data and information are fundamental prerequisites for rigorous analysis and hence sound strategy for development and equitable distribution of income to the various sectors of the economy according to national priorities. For this reason it is crucial that statistics and information be collected, compiled, analyzed and disseminated using the best methodologies, concepts and classifications at national, subnational, regional and global levels.

FAO's preparation of regional and global Yearbooks is part of a much broader effort by the organization and its national and international partners to improve the quality of statistical data related to food insecurity, agriculture and the sustainable management of natural resources. At the 31st session of the FAO Regional Conference for the Near East in 2012, the organization unveiled its plans for the development of a regional strategy to improve agricultural statistics. The regional strategy – which is being developed by regional stakeholders and countries – is an integral part of the Global Strategy to Improve Agricultural and Rural Statistics, a long-term project promoted by FAO and international partners. The Global Strategy is built on three major pillars: producing a minimum set of core data and determining national priorities, integrating agricultural statistics into national statistical systems, and fostering the sustainability of agricultural statistics through governance and statistical capacity development.

This 2014 edition of the Near East and North Africa Statistical Yearbook of food and agriculture contains a breadth of data and topics related to food security and agriculture. FAO remains committed to working with partners and Member States in the Near East and North Africa to improve agricultural and rural statistics and facilitate the process of transforming this information into policies that will strengthen food security in the region and ensure more sustainable food production.

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Acknowledgements

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How to use this book

The structure

The FAO Statistical Yearbook products build on the process that began with the 2012 edition. The book has been created from beginning to end with the statistical software R and the typesetting language LaTeX: from data retrieval, to data processing, indicator construction, and blueprint-ready pdf file for distribution. This technique has circumvented the traditional route of manual production, involving costly software licences, significant labour costs and inefficiencies associated with a lack of integration.

Using data from global statistical providers, including FAO, the publication presents a visual synthesis of major trends and factors shaping the global food and agricultural landscape, and their interplay with broader environmental, social and economic dimensions. In doing so, it serves as a unique reference point of world food and agriculture for policy-makers, donor agencies, researchers, analysts and the general public.

The book is divided into four thematic parts, in an attempt to present the full spectrum of issues relevant to the subject matter:

Part 1 **The setting** measures the state of the agricultural resource base by assessing the supply of land, labour, capital and inputs, and examining the pressure on the world food system stemming from demographic and macroeconomic change.

Part 2 **Hunger dimensions** gauges the state of food insecurity and malnutrition, measuring the multitude of dimensions that give rise to hunger and shape undernourishment.

Part 3 **Feeding the world** evaluates the past and present productive capacity of world agriculture, together with the role of trade in meeting changing food, feed and other demands.

Part 4 **Sustainability dimensions** examines the sustainability of agriculture in the context of the pressure it exerts on the environment, including the interaction of agriculture with climate change, and how it can provide ecosystem services through the bio-based economy.

Several page spreads are used to present each thematic issue. Each spread contains visualizations of the data in maps and charts, along with text providing background to the salient issues and an assessment of current trends. Tables are provided at the end of each part. A list of indicators used throughout the book and a section on concepts and methods can be found in Part 5.

Country definitions and classification

The publication follows the FAO Regional Office for the Near East and North Africa composition (see "Table: Country list" or http://neareast.fao.org/).

Aggregations

Two types of aggregations are used in the book: sum and weighted mean. Two restrictions are imposed when computing the aggregation: i) the sufficiency condition – the aggregation is computed only when sufficient countries have reported data, and the current threshold is set at 50 percent of the variable and the weighting variable, if present; and ii) the comparability condition – as aggregations are usually computed over time, this condition is designed to ensure that the number of countries is comparable over several years; under the current restriction the number of countries may not vary by more than 15 over time.

Data presentation conventions

The cutoff date for the data is 30 September 2013.

- When country data have not been reported for the reference year, an asterisk (*) on the year label indicates that the value for the most recent year available is shown. For example, 2008–2010* means that the most recent value for the period from 2008 to 2010 is shown. When a growth rate is computed, the specified interval always refers to available data.
- A billion is 1 000 million.
- A trillion is 1 000 billion.
- A blank means that data are not available or that aggregates cannot be calculated because of missing data for the years shown.
- In tables, 0 or 0.0 means zero or a number that is small enough to round to zero at the displayed number of decimal places.
- A ~ in the maps refers to the range specified in the class intervals.

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PART

1

The Setting

The countries of the Near East and North Africa , as with the rest of the world, are in a situation where they must find ways of feeding more and more people with a limited amount of land and water and other natural resources. Transforming the agricultural sector so that it can meet the growing demand for safe and nutritious food, reduce rural poverty and at the same time contribute to environmentally sustainable development is the challenge the region, and the entire world, is facing.

To meet this challenge, attention will need to be paid to the communities whose livelihoods depend on agriculture, forestry and fisheries, particularly smallholder farmers. In the Near East, rural communities must cope with dry conditions and face chronic outmigration and high levels of poverty. Within the region, there are wide variations among countries in terms of their economic and agricultural development. The region includes the oil-exporting countries of the Gulf Cooperation Council (GCC) and Yemen on the Arabian Peninsula, the Maghreb sub-region, which includes Algeria, Libya, Mauritania, Morocco, and

Tunisia, and the Oriental Near East countries (the Islamic Republic of Iran, Iraq, Egypt, Jordan, Lebanon, the former Sudan and Syria). But whatever the level of agricultural development, every country will need to invest in agriculture and food supply systems to ensure that production can be sustained for future generations and that agriculture can continue to be a motor for sustainable economic growth, particularly in rural areas.

Recent years have seen upheavals that have affected the agricultural sector: food prices have soared and then declined on volatile international commodity markets and a global financial crisis has slowed down economic growth. For many countries in the region, agriculture can provide an important haven against global economic and financial turmoil, often more effectively than other sectors.

Downward trends in the global economy are slowly turning, with improved accessibility to financial resources. Recent events have created a greater understanding among governments and donor agencies that agriculture must be the mainstay of any development agenda and of policies promoting economic growth. The reaffirmation of the sector's role in development and growth provides fresh impetus for fostering investments that raise productivity and incomes in agriculture.

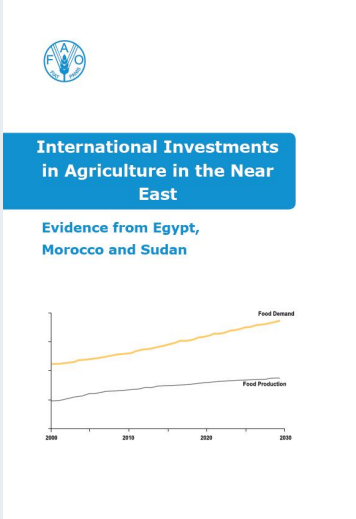
In order to formulate effective evidence based policies, decisions must be based on sound data on a wide range of subjects. There needs to be complete picture of the overall context in which sustainable agriculture development is to take place. This involves gathering information on agriculture, forestry and fisheries, as well as on the natural resource base that supports these activities and the competing demands on these resources from other sectors. Information on livelihoods in agricultural communities is essential for determining the best possible options for achieving sustainable food production and reducing hunger and malnutrition. This includes a greater understanding the demographic trends and the labour situation in rural communities. Although women make significant contributions to the rural economy, they often have less access to productive resources than men, and families often rely on children's work for survival. For this reason, gender-sensitive data on the different roles men and women play in agricultural production and the alleviation of hunger and malnutrition is also required.

Key Resources

International Investments in Agriculture in the Near East: Evidence from Egypt, Morocco and Sudan

Three case studies in Egypt, Morocco and Sudan were commissioned by the FAO Regional Office for the Near East and North Africa. The purpose was to (i) identify past and current investment trends in terms of the actors involved, modalities, size and impact, (ii) assess these investments in the context of the region and its food security challenges, and (iii) identify areas to be addressed by policy makers to ensure food security in the long run and provide a starting point to evaluate investments for timely and targeted policy measures. While information on international investments in agriculture is not readily available, the case studies provide an overall picture of agriculture investments, specifically focusing on foreign direct investments.

Webpage: www.fao.org/fileadmin/templates/est/INTERNATIONAL-TRADE/FDIs/Egy_Mor_Sud.pdf



Key Resources

The State of Food and Agriculture

The State of Food and Agriculture, FAO's major annual flagship publication, aims at bringing to a wider audience balanced science-based assessments of important issues in the field of food and agriculture. Each edition of the report contains a comprehensive, yet easily accessible, overview of a selected topic of major relevance for rural and agricultural development and for global food security. This is supplemented by a synthetic overview of the current global agricultural situation.

2013: Food systems for better nutrition

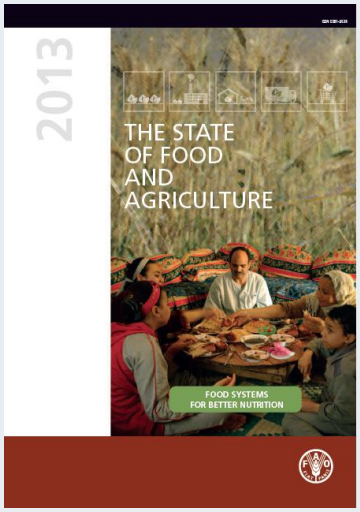
2012: Investing in agriculture for a better future

2010-11: Women in Agriculture, Closing the gender gap for development

2009: Livestock in the balance

Publication cycle: Annual

Webpage: www.fao.org/publications/sofa



Overview

The Near East and North Africa Region covers about 1.2 million hectares (approximately 9.4 percent of the world's total land area). In 2012, the population in the region was 432 million people, and over the next 10 years it is expected to reach 780 million people. The region's share of the world population has increased from 5.6 percent in 2001 to approximately 6.1 percent in 2012.

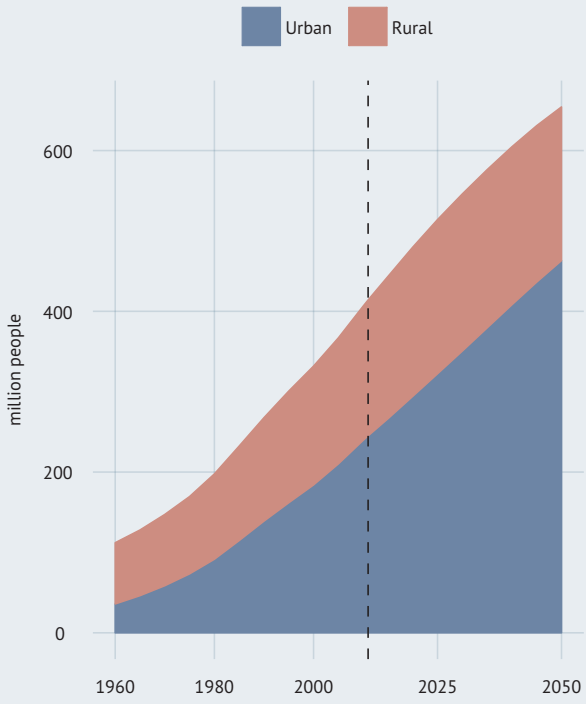
The average annual population growth rate between 2000 and 2012 is 2.2 percent. Some of the world's highest rates of population growth can be found in the region's GCC countries. Sub-Saharan Africa is the only other region with a higher rate of population growth.

Although population density in the region is relatively low (29.2 persons per square kilometer) compared to other regions, densities are increasing. Within the region there is a wide range of densities, with the small island country of Bahrain having a very high population density (1 701 people per square kilometer), and Libya and Mauritania having the lowest densities (roughly 3.5 persons per square kilometer).

In line with the global trend, the population of the Near East region is becoming increasingly urban. Between 2000 and 2011, the percentage of the total population living in rural areas fell from 42.6 percent to 38.8 percent. There are only three countries in the region where the rural population is greater than 50 percent: Yemen (67.7 percent), Mauritania (58.5 percent) and Egypt (56.5 percent). In the region, the percentage of the population that is engaged in agriculture stood at 22.7 percent in 2011, down from 30 in 2000.

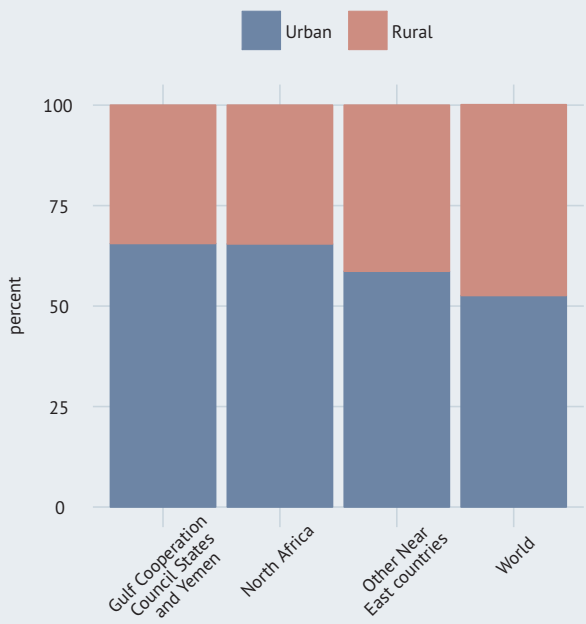
Given this demographic situation, which on the whole is similar to the global outlook, a clear challenge for the region is to ensure that agricultural communities are able to contribute to ensuring that expanding urban populations have access to safe, nutritious food, and can do so in a manner that does not exhaust the limited natural resources.

CHART 1: **Near East and North Africa rural and urban population (1960-2050)**



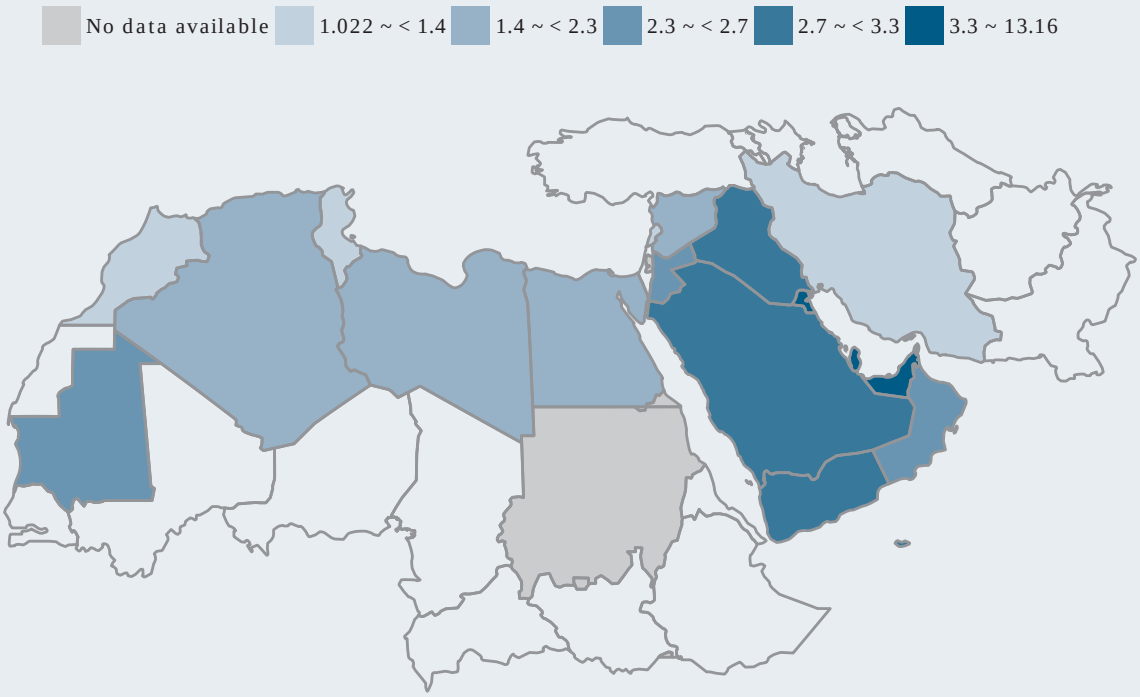
Source: United Nations Population Division.
Data after 2011 are projections.

CHART 2: **Rural and urban population, share of total population (2011)**



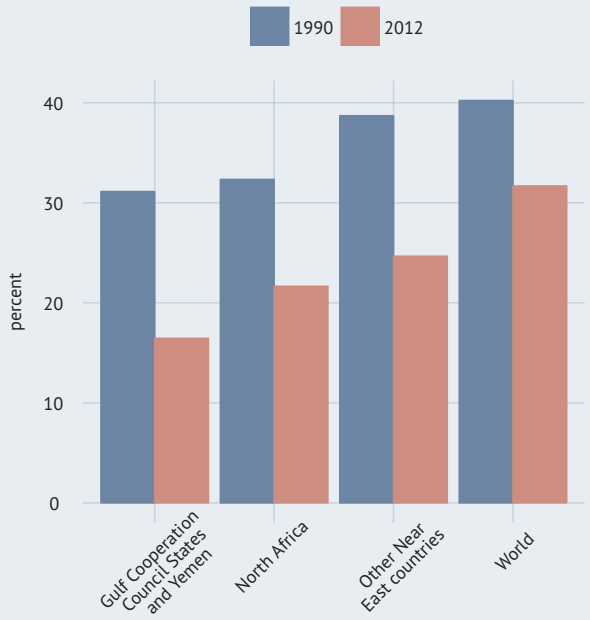
Source: United Nations Population Division.

MAP 1: **Population annual growth (percent, 2000-2012)**



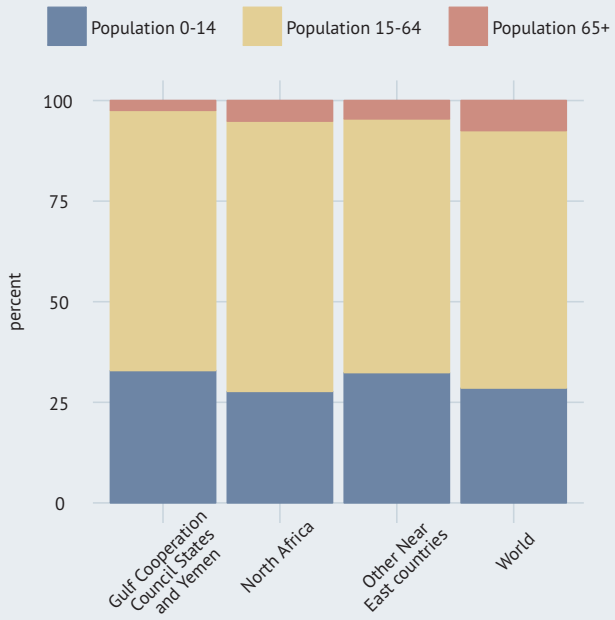
Source: United Nations Population Division.

CHART 3: **Agricultural population, share of total population (1990 and 2012)**



Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

CHART 4: **Population ages 0-14, 15-64 and 65+, share of total (2010)**



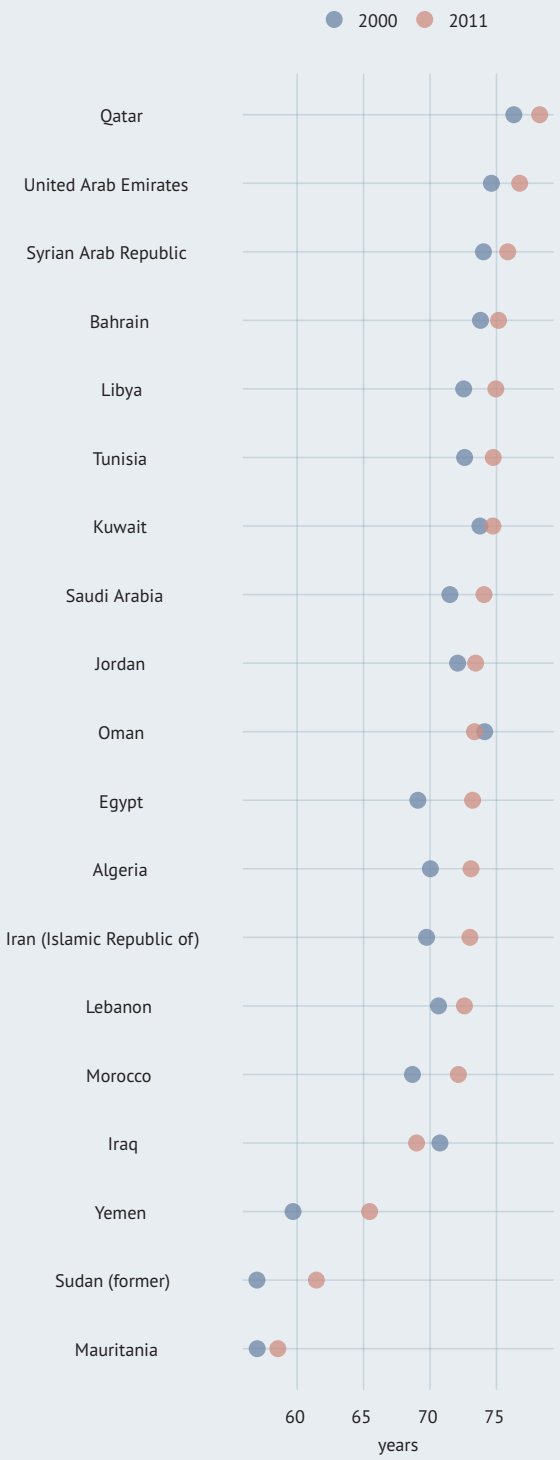
Source: United Nations Population Division.

Progress in being made in key health-related indicators, which will affect the region's future demographic situation. Between 2000 and 2011, life expectancy in the region increased from 68.5 years to 70.6 years, which is slightly higher than the world average. Mauritania had the lowest life expectancy (61.2 years) and has made limited progress in this area. In Yemen life expectancy is also under 70, but the country has made noticeable advances over the last decade. Iraq is the only other country in the region where life expectancy is less than 70. Qatar has the highest life expectancy in the region (78.2 years).

Increases in life expectancy partly reflect progress that has been made in lowering infant and under-five mortality. Between 2000 and 2012, infant mortality decreased from 34.6 deaths per 1 000 live births to 25.6. Over the same period, under-five mortality declined from 46.1 deaths per 1 000 live births to 32.7. Both of these figures are below the global average. The figures for the GCC countries and Lebanon are significantly lower than the other countries in the region. Mauritania and Yemen are the only countries where the figures for both these indicators are above the global average.

In 2011, the region's per capita income was US$15 000. Per capita income in the region is considerably higher than the 2011 global per capita income level of US$10 000. However, wealth in the region is very unevenly distributed, and this has a clear correlation to the above-mentioned indicators. In 2011, GCC countries account for about 84 percent of the regions' per capita income. Qatar registered the highest per capita income (US$ 80 000), and Mauritania and Yemen the lowest (approximately US$ 1 000). This disparity is due to the heavy concentration of oil resources in GCC countries and the population difference between the countries.

CHART 5: **Life expectancy at birth, selected countries (2000 and 2011)**

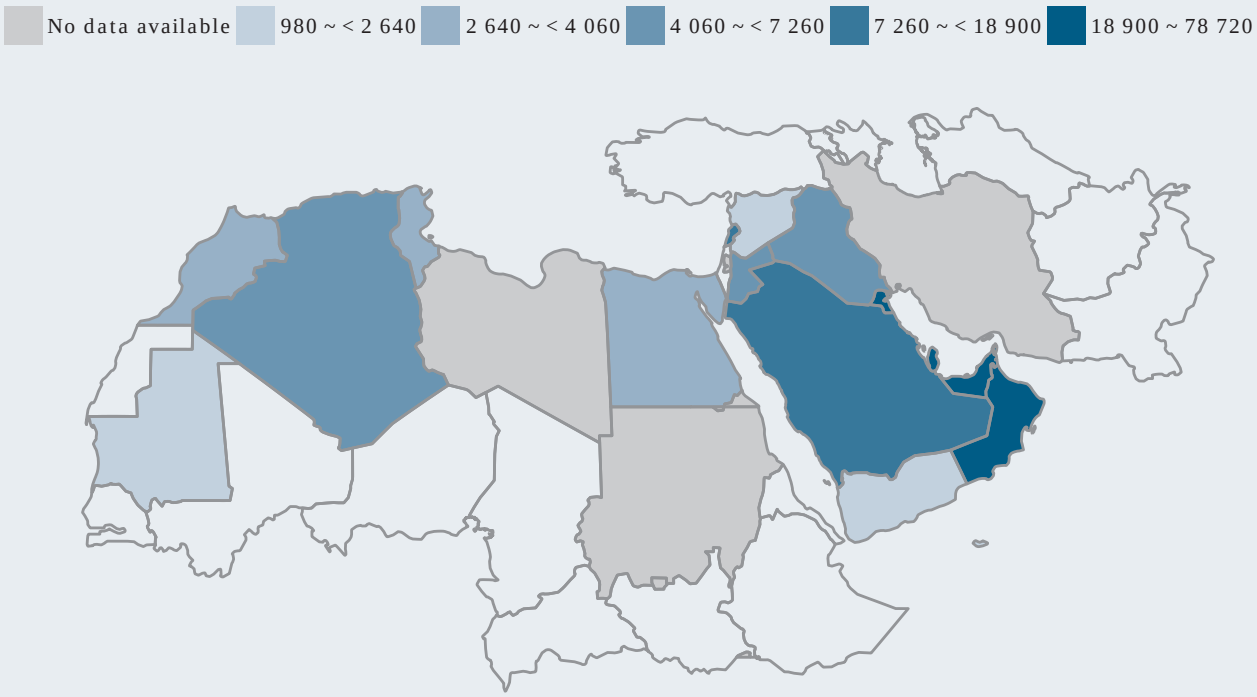


Source: World Bank (WDI).

Further reading

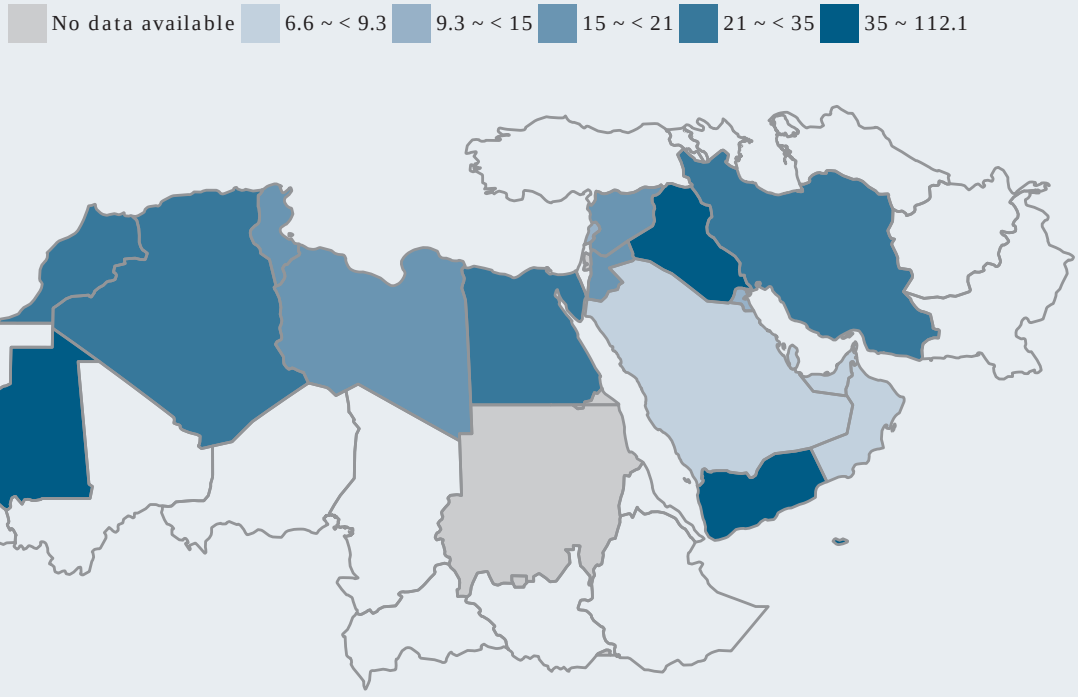
- Regional Conference For The Near East, FAO Regional Priority Framework for the Near East (http://www.fao.org/docrep/meeting/020/k9512e.pdf)
- World Population Prospects: the 2011 revision (www.un.org/esa/population/)
- UN Population Fund (www.unfpa.org/)
- FAO Food and Nutrition Security in Urban Environments (www.fao.org/ag/agn/nutrition/urban_security_en.stm)

MAP 2: **GNI per capita (current US$, 2010-2011*)**



Source: World Bank (WDI).

MAP 3: **Under-5 mortality rate (per 1000 live births, 2010-2011*)**



Source: World Bank (WDI).

Economy

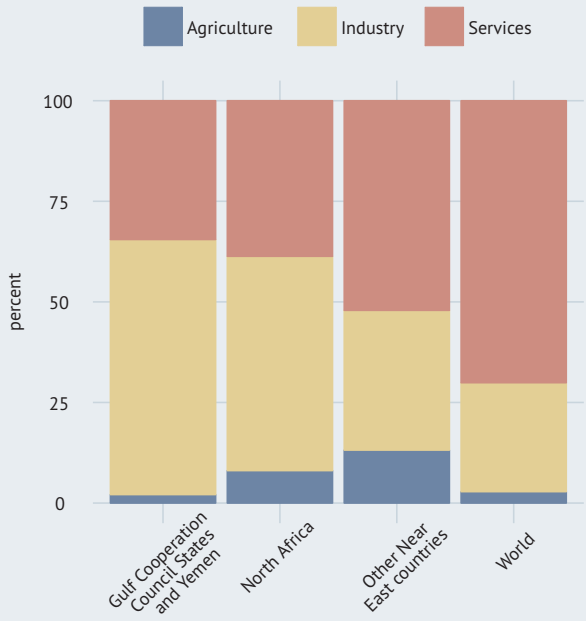
Changes in the wider economy and macroeconomic policies continue to affect the performance of the agricultural economy. Although recovery continues, growth in the advanced economies remains too low to reduce unemployment notably. In particular, fiscal consolidation, a financial system that is still weak, and a general feeling of uncertainty have had a negative impact on incomes, and hence demand. This situation, in turn, affects emerging market and developing economies through trade and financial channels, including volatile capital flows. Given the growing integration of the global economy, macroeconomic policies play an increasingly important role in determining the performance of agriculture sectors.

In 2011, the combined total Gross Domestic Product (GDP) for the region stood at US$ 1.1 trillion, up from US$ 0.8 trillion in 2000. Between 2001 and 2011, the region's share of the world's GDP remained relatively steady and stood at 2.5 percent. As the region is highly reliant on the export of its oil resources, its share of the world's GDP is determined by increases in international oil prices. In 2008, when oil prices were at a record high, the region reached its highest level of GDP (US$ 2.3 trillion). Growth in GDP in the region increased from 2.9 in 2001 to 4.3 in 2011. The highest average growth rate for the region was recorded in 2004 (8.9 percent). Qatar had the highest rates of growth in 2011 (roughly 19 percent).

In the Near East and North Africa, the value added of agriculture declined from 13 percent of GDP in 2001 to 9 percent in 2011. Egypt, Mauritania and Morocco are the countries in the region where agriculture's share of added value to the GDP exceeds 10 percent. The agricultural value added per worker is quite high in the region (US$ 9 000 in 2011) compared to the global average (US$ 1 000).

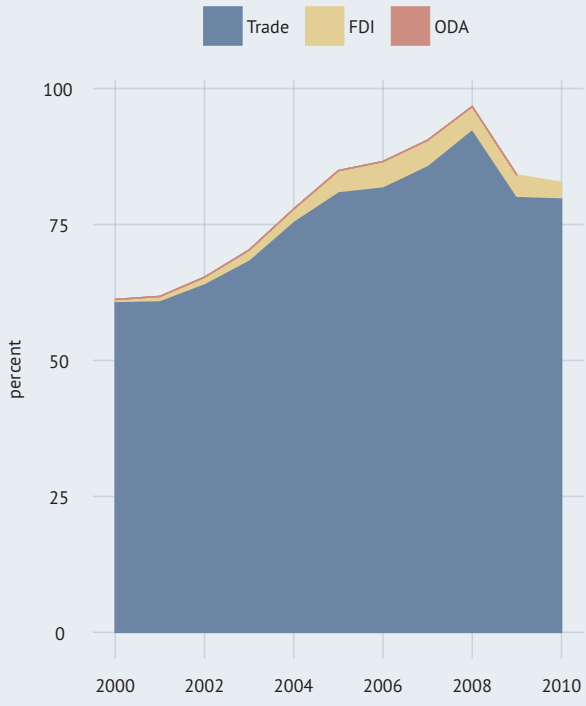
Foreign direct investment (FDI) represents a small share of the region's GDP (1.4 percent). This is lower than the global figure (2.5percent). Lebanon (8.7 percent) and Jordan (5.1 percent) are the countries in the region where FDI contributes the largest share of GDP.

CHART 6: **Value added in agriculture, industry, and services as shares of GDP (2008)**



Source: World Bank (WDI).

CHART 7: **Near East and North Africa trade, FDI, and ODA as shares of GDP (2000-2010)**

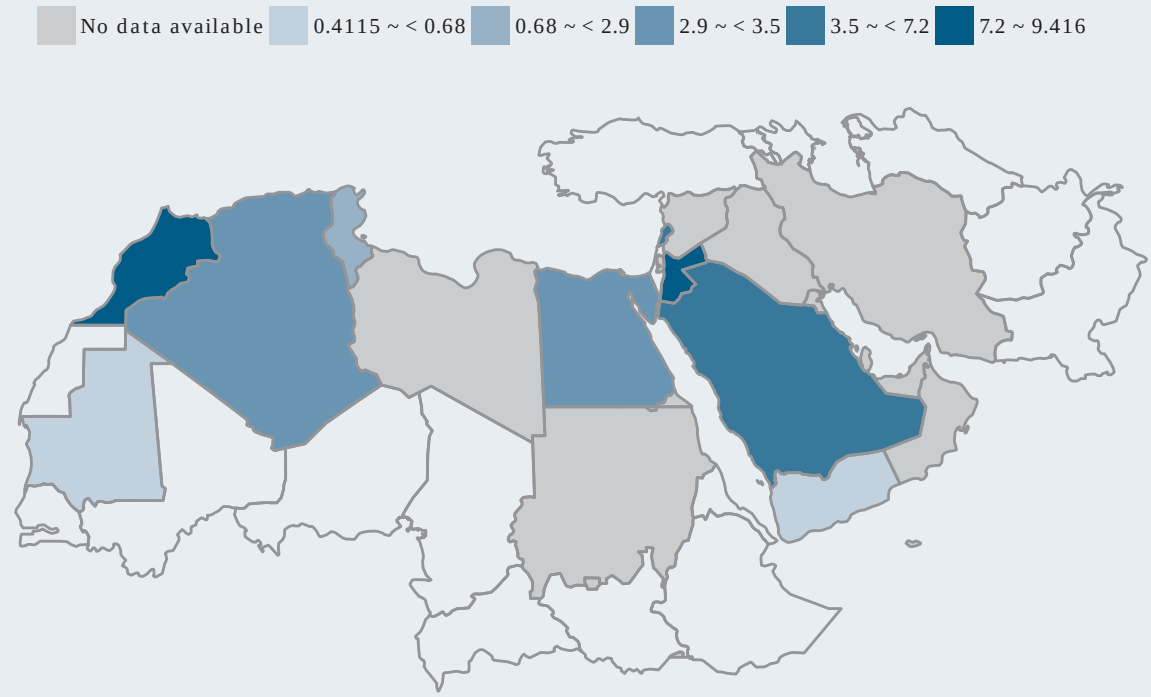


Source: World Bank (WDI).

Further reading

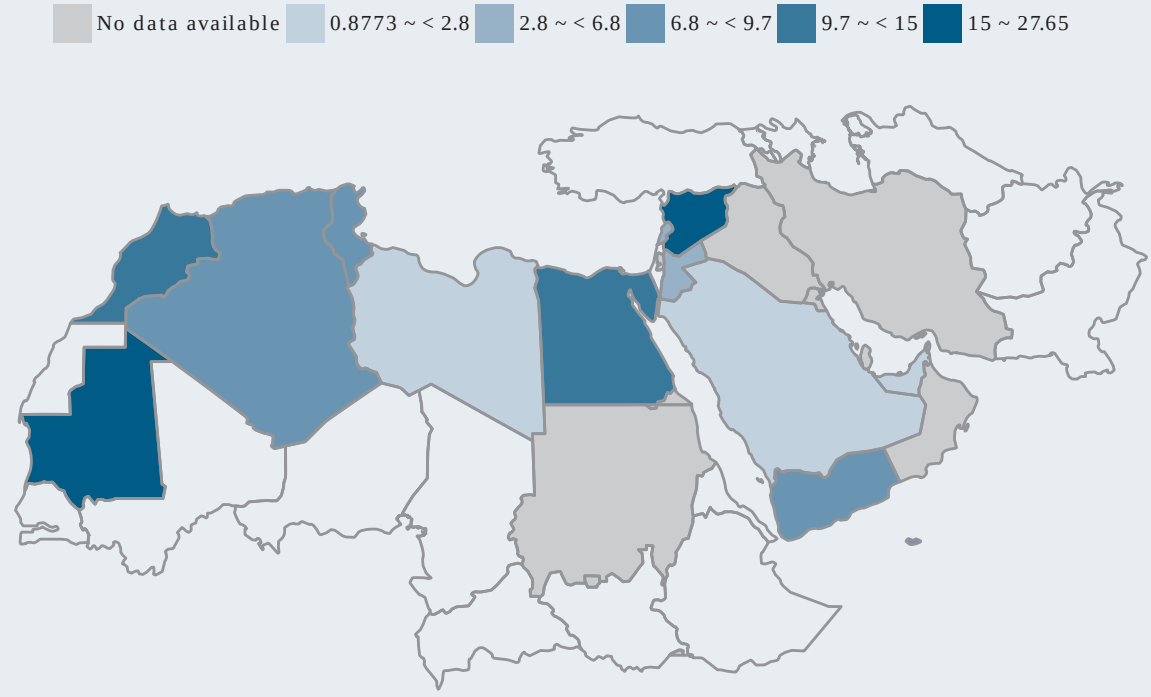
- FAO (2013a)
- World Bank: Global Economic Prospects (wwwr.worldbank.org/prospects/)
- International Monetary Fund: World Economic Outlook (www.imf.org/external/index.htm)

MAP 4: **Agriculture, value added per worker annual growth (percent, 2000-2010)**



Source: World Bank.

MAP 5: **Agriculture, value added as share of GDP (percent, 2008-2012*)**



Source: World Bank (WDI).

Land and Water

Desert climatic conditions predominate throughout the Near East and North Africa region, and much of the land is not suited to agriculture. Out of the region's total land area of 1.2 billion hectares, only a third is considered agricultural land. Most of this agricultural land (85 percent) is used for meadows and pastures. In the GCC countries and Yemen, the percentage of land dedicated to pastures and meadows is 97.5 percent. In Mauritania, it is almost 100 percent. This is much higher than the global average, and a clear indication of the central role livestock plays in agriculture in the region.

Within the region, the arable land represents about 13.7 percent of total agricultural land area, covering an area of about 52 million hectares. There are significant variations in the percentage of arable agricultural land within the region. In the GCC countries and Yemen, the percentage of agricultural land that is arable is only 2.2 percent. Egypt has the lowest percentage of agricultural land to total area in the region (3.7 percent), but much of this is arable (78.3 percent). This is by far the highest percentage of arable land to total agricultural area in the region. Iraq has the next largest percentage (48.7 percent).

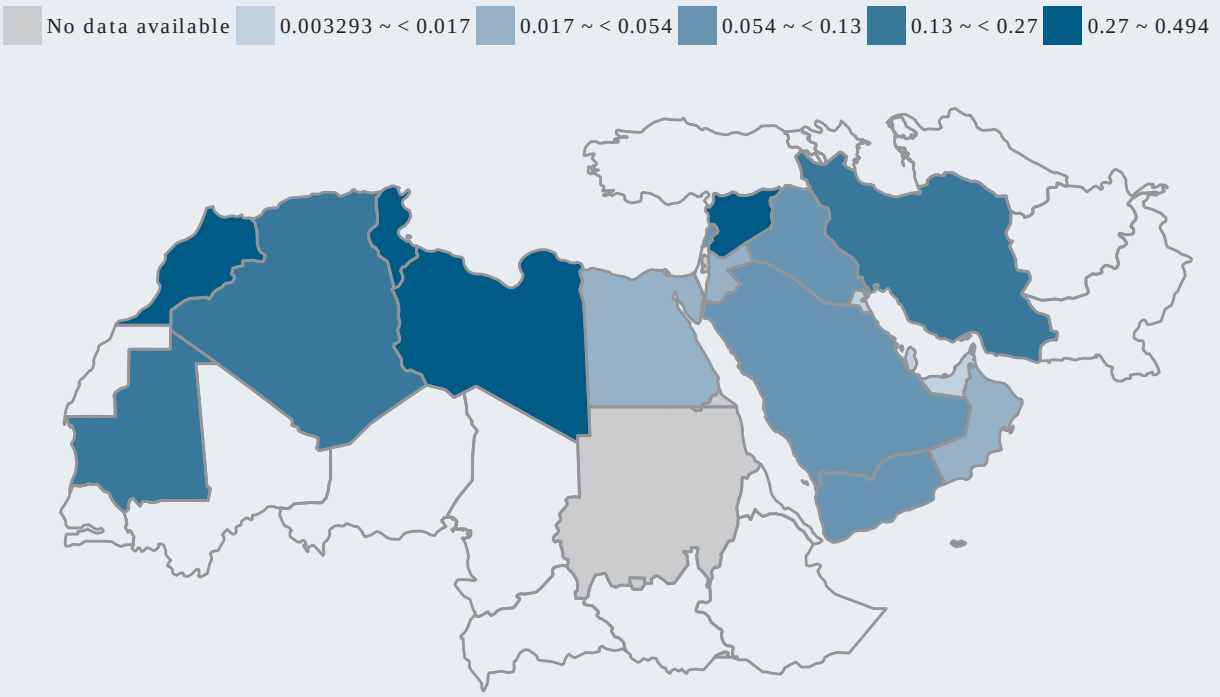
The amount of agricultural land dedicated to permanent crops is also low (2 percent). Tunisia and Egypt are the only two countries in the region with significant areas of agricultural land under permanent crops (23.8 percent and 21.7 percent respectively).

With forests covering only about 1.9 percent of its total land area, the region has meager forest resources, accounting for only 0. 6 percent of the world's total forest resources. Only Lebanon and Morocco have more than 10 percent forest cover. In nine countries, forests cover less than one percent of the total land area.

CHART 8: **Arable land per capita (2000 and 2011)**

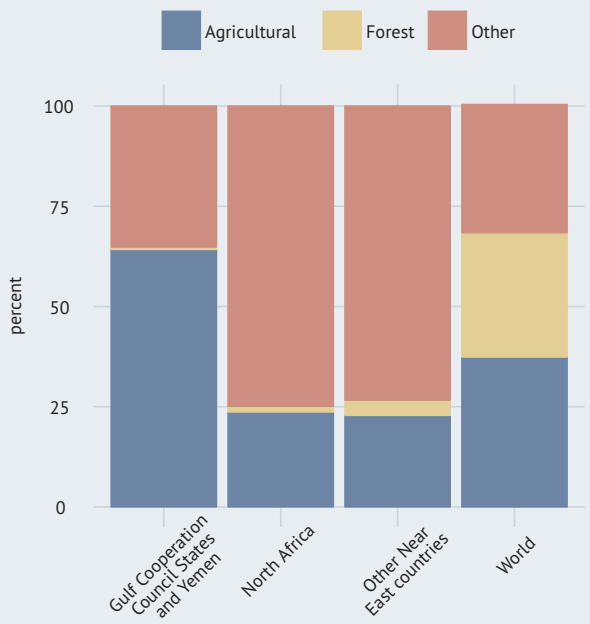
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

MAP 6: **Cropland per capita (ha/cap, 2011)**



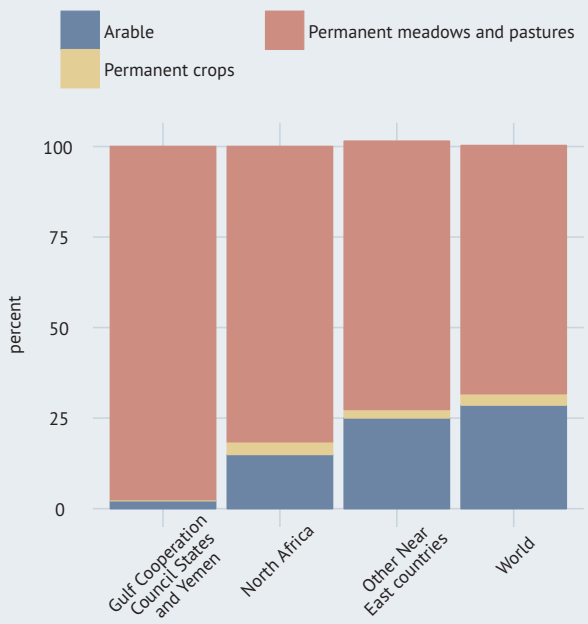
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

CHART 9: **Land area (2011)**



Source: FAO, Statistics Division (FAOSTAT).

CHART 10: **Agricultural area (2011)**



Source: FAO, Statistics Division (FAOSTAT).

Large parts of the region are desert and experience extremely low natural precipitation, and water resources are scarce. The rainfall data from 2008 indicate that the region received a total of 2 905 mm of rainfall. Three countries, Syria, Lebanon and Iran, obtained approximately 40 percent of the region's rainfall. The figure of 2 000 cubic meters per person per year is usually used as an indicator of water scarcity. In 2010, Mauritania and Iraq were the only countries where per capita water resources exceed this water scarcity threshold.

Due to the lack of precipitation, the region relies heavily on irrigation for its agricultural production. Fresh water withdrawals for agriculture account for about 78 percent of the region's water withdrawals. In 2009, the region's fresh water withdrawal stood at 4 509 billion cubic meters.

Iran has the largest area equipped for irrigation, at over 9 million hectares, and the most potential for expanding irrigation. Egypt and Iraq have the next highest potential for increasing irrigation. AQUASTAT, FAO's global water information system, points out that it is important to distinguish between land under irrigation and actually irrigated land. The first indicator is the physical area equipped with irrigation infrastructure. The second is expressed as a percentage and is defined as part of the area under irrigation that is actually irrigated in a given year. The most recent data indicates that, for most of the countries in the region, the share of actually irrigated land is quite high.

The agricultural sector is facing increased competition from cities and industries for water resources, and realizing irrigation potential may be difficult. Countries in the region must increase the efficiency of their water usage and ensure higher returns per volume of water used. They also need to adopt practices, such as the re-use of waste water, for expanding available water resources. Strategies will also need to be developed to ensure countries in the region can adapt to the impacts of climate change on their limited water resources.

Further reading

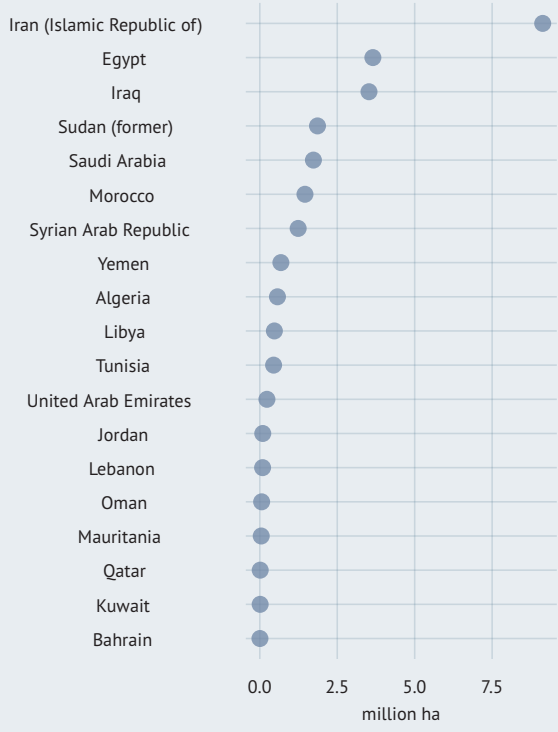
- AQUASTAT, FAO's global information system on water and agriculture (http://www.fao.org/nr/water/aquastat/main/index.stm)
- FAO The State of the World's Land and Water Resources for Food and Agriculture (SOLAW) - Managing Systems at Risk 2011 (www.fao.org/nr/solaw/solaw-home/en/)
- Bruinsma (2011)
- FAO Natural Resources and Environment Department (www.fao.org/nr/)

CHART 11: **Irrigation potential, selected countries (2012)**

Source: Land and Water Division (AQUASTAT).

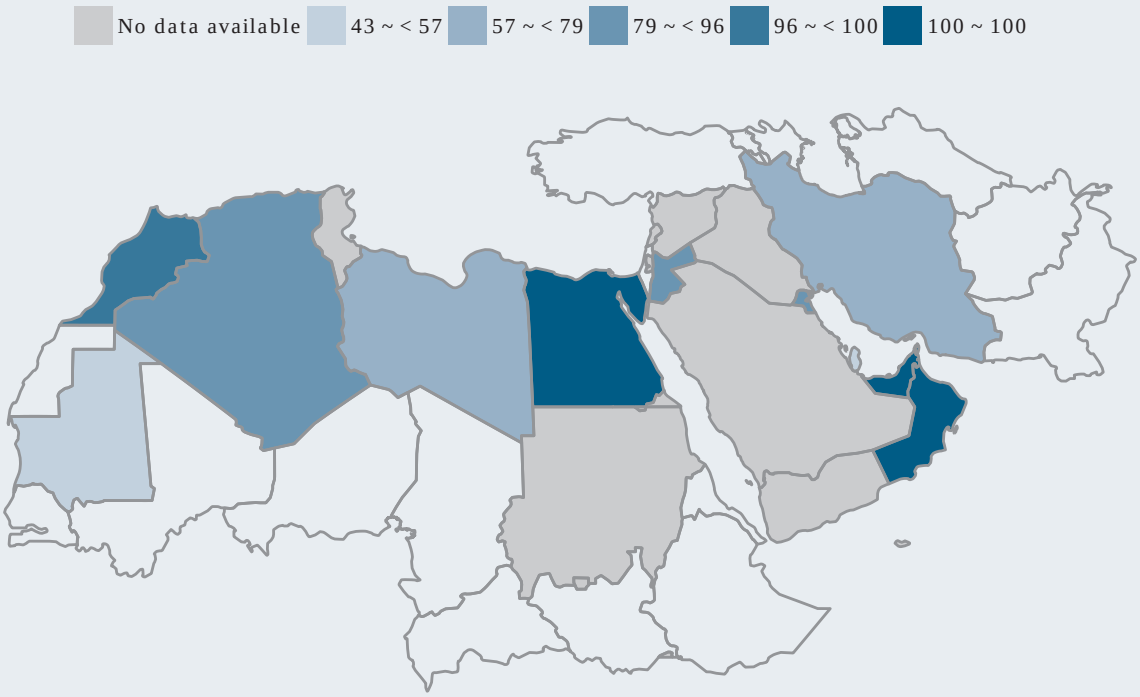
The irrigation potential area includes the area already equipped for irrigation.

CHART 12: **Total equipped area (2009)**



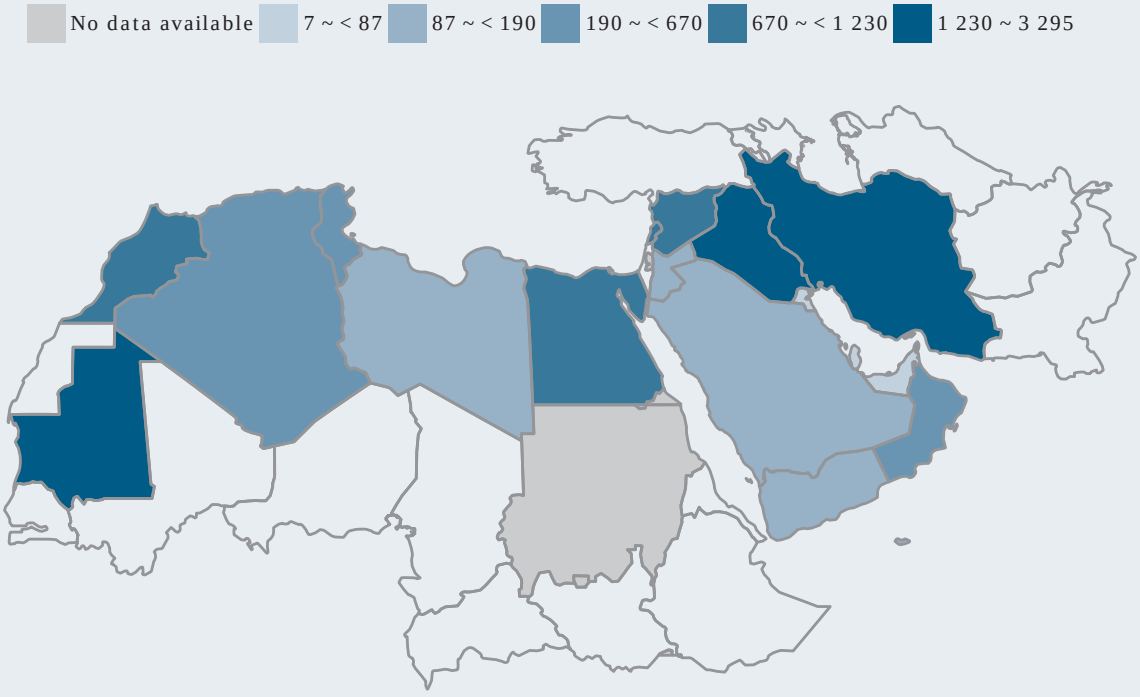
Source: Land and Water Division (AQUASTAT).

MAP 7: **Share of equipped area actually irrigated (percent, 2000-2012*)**



Source: Land and Water Division (AQUASTAT).

MAP 8: **Water resources per capita (m^3/yr/cap, 2010)**



Source: Land and Water Division (AQUASTAT).

Labour

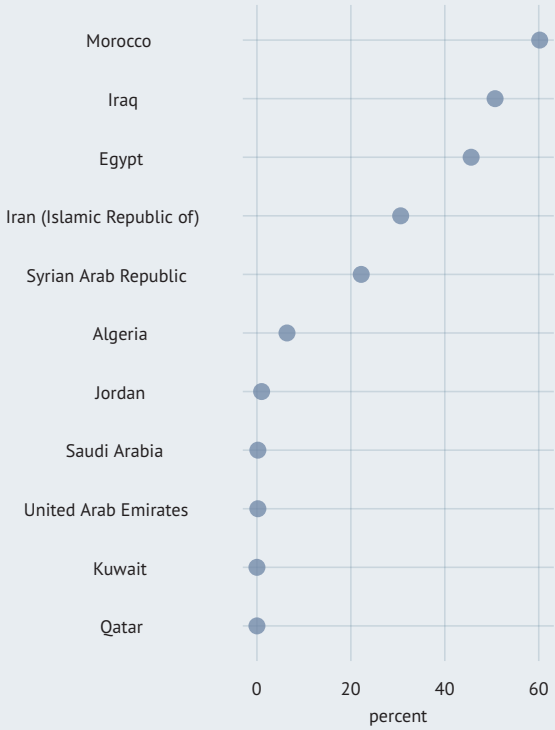
In developing regions, employment growth is often driven by demographic changes. It is common that workers are not engaged in formal wage employment but instead are self-employed or do unpaid family work, such as in agriculture, especially subsistence farming.

In the Near East and North Africa, there is wide variation among countries in terms of the percentage of the labour force engaged in agriculture. In the GCC countries and Jordan the share is less than five percent. Morocco has the highest share at 40.2 percent, followed by Egypt, Iraq and the Islamic Republic of Iran.

The participation of women in the overall labour force in the region (21.6 percent) is much lower than the world average (49 percent). Qatar is the only country in the region where the rate of women's participation in the labour force exceeds the global average. However, the female share of the agricultural labour force in the Near East and North Africa appears to have increased significantly, from 30 percent in 1980 to almost 45 percent in 2010. Jordan, the Libya and the Syrian Arab Republic display some of the highest and fastest-growing rates of female agricultural labour force participation. In Morocco, women make up more than 60 percent of the agricultural labour force, whereas men represent 33 percent. In four other countries (Egypt, the Islamic Republic of Iran, Iraq and the Syrian Arab Republic), the percentage of women employed in agriculture is much higher than the percentage of men.

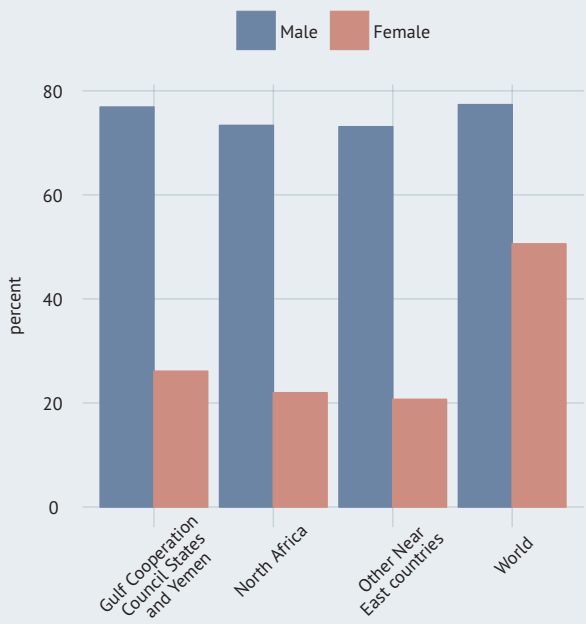
The percentage of children between the ages of seven and 14 that are employed varies widely among the countries in the region. Of the countries for which data are available, Mauritania has the highest percentage of employed children (21.3 percent).

CHART 13: **Female employment in agriculture, share of female employment, selected countries (2005-2010*)**



Source: World Bank (WDI).

CHART 14: **Labor force participation rate by gender, ages 15+ (2011)**

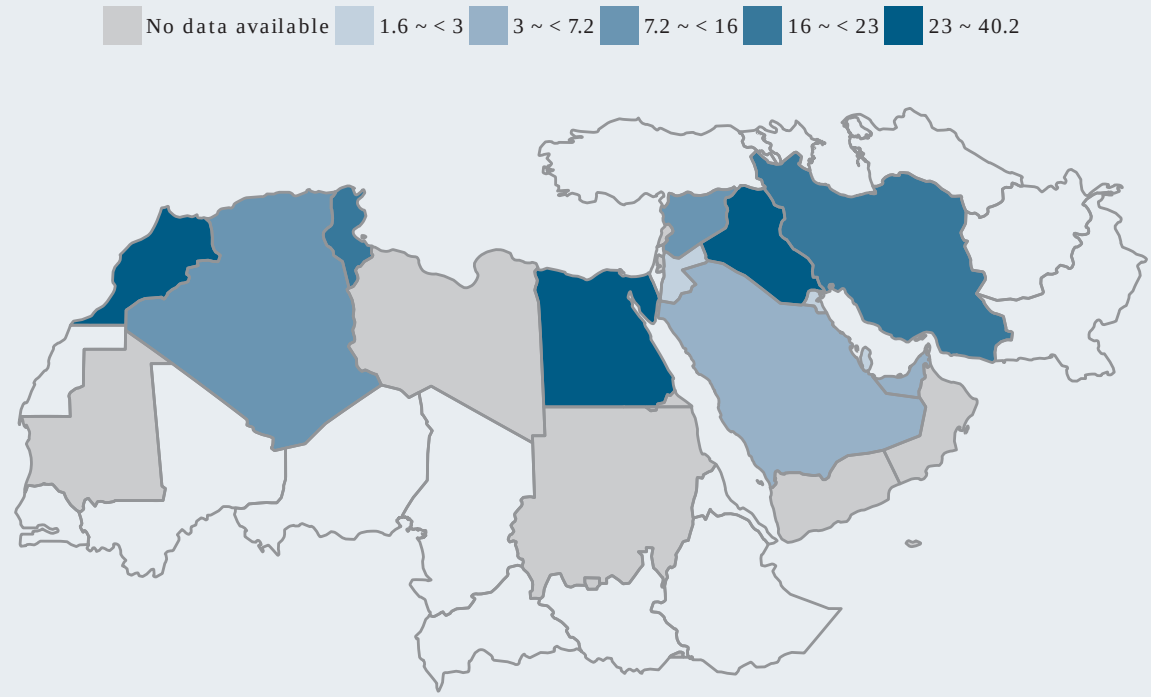


Source: World Bank (WDI).

Further reading

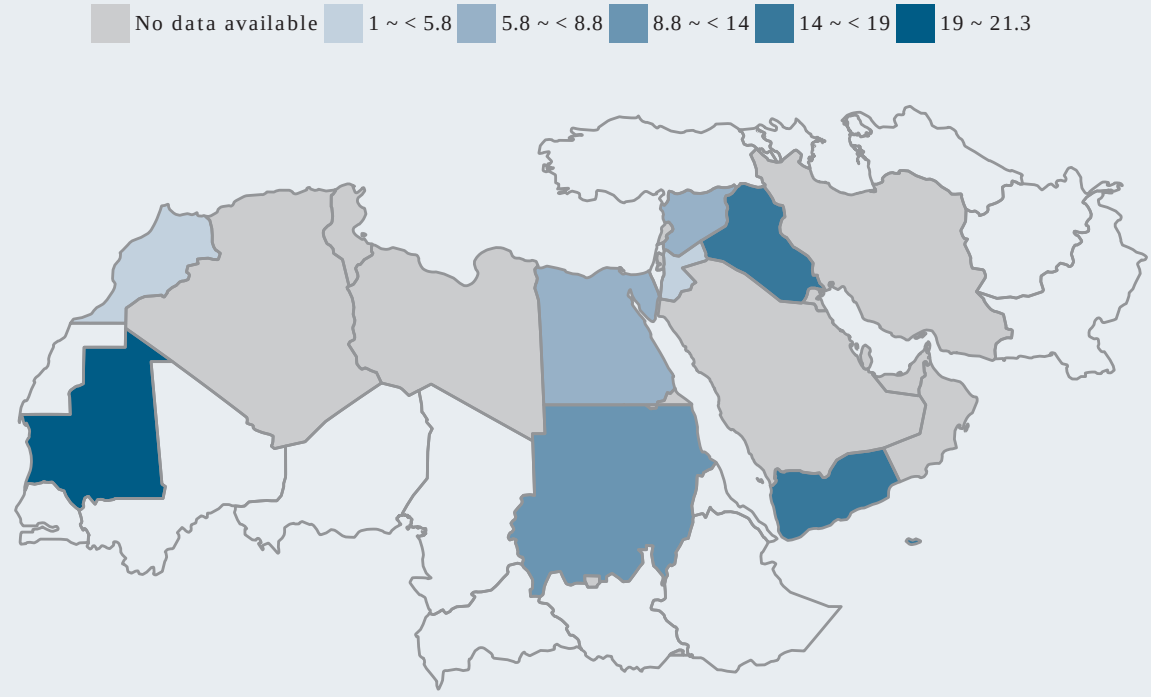
- FAO (2012c)
- FAO Gender, Equity and Rural Employment Division (www.fao.org/economic/esw/)

MAP 9: **Employment in agriculture, share of total employment (percent, 2005-2010*)**



Source: World Bank (WDI).

MAP 10: **Children in employment, share or children ages 7-14 (percent, 2000-2011*)**



Source: World Bank (WDI).

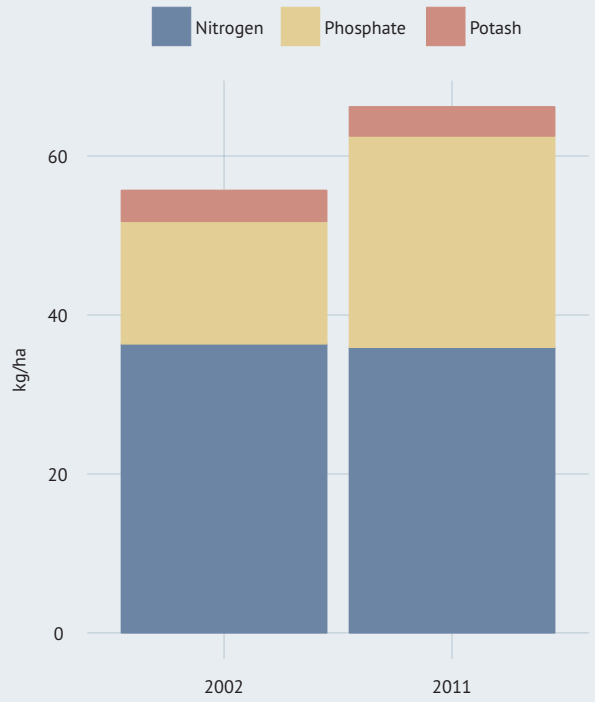
Inputs

The use of fertilizers is becoming increasingly important due to the impact of more intensive cultivation practices and shorter fallow periods on soil fertility. In 2011, the countries of the Near East and North Africa applied nearly 36 tonnes of nitrogen per hectare of agricultural land. This is less than most developing regions and the global average (73.3 percent). Only Africa applies less nitrogen fertilizer (6.87 tonnes per hectare). There are wide variations within the region. The GCC countries and Yemen apply roughly 94 tonnes of nitrogen per hectare of arable land and permanent crops. Qatar applies nearly 9 000 tonnes of nitrogen per hectare land. In Egypt, farmers apply over 360 tonnes of nitrogen fertilizer per hectare. By contrast, farmers in Algeria, apply only 7.5 tonnes. Farmers in Sudan apply the least amount of nitrogen fertilizer (5.0 tonnes per hectare).

The region applies a relatively high amount of phosphate fertilizer (26.6 tonnes per hectare). This is the highest of any region other than Latin America and the Caribbean. Jordan applies the most phosphate fertilizer per hectare of arable land and permanent crops (162 tonnes), followed by Tunisia (155 tonnes). Relatively little potash fertilizers is used, however (3.7 tonnes per hectare). Jordan applies the most potash fertilizer (487 tonnes per hectare) followed by Bahrain (292 tonnes per hectare) and Kuwait (244 tonnes per hectare).

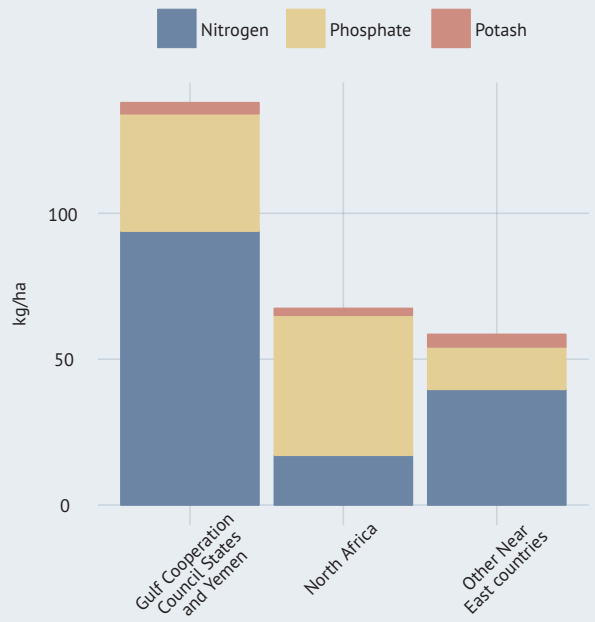
Pesticides are the insecticides, fungicides, herbicides, disinfectants and other substances or mixtures of substances used to prevent, destroy or control any pest. Pests include vectors of human or animal disease, and unwanted species of plants or animals that harm or interfere with the production, processing, storage, transport or marketing of food, agricultural commodities, wood and wood products or animal feedstuffs, or the substances that may be administered to animals for the control of insects, arachnids or other pests in or on their bodies. Pesticides include substances intended for use as plant growth regulators, defoliants, desiccants or agents for thinning fruit or preventing the premature fall of fruit, and substances applied to crops either before or after harvest to protect the commodity from deterioration during storage and transport. Data refer to quantities of pesticides applied to crops and seeds in the agriculture sector.

CHART 15: **Near East and North Africa fertilizer consumption per ha of arable area and permanent crops (2002-2011)**



Source: FAO, Statistics Division (FAOSTAT).

CHART 16: **Fertilizer consumption per ha of arable area and permanent crops (2011)**

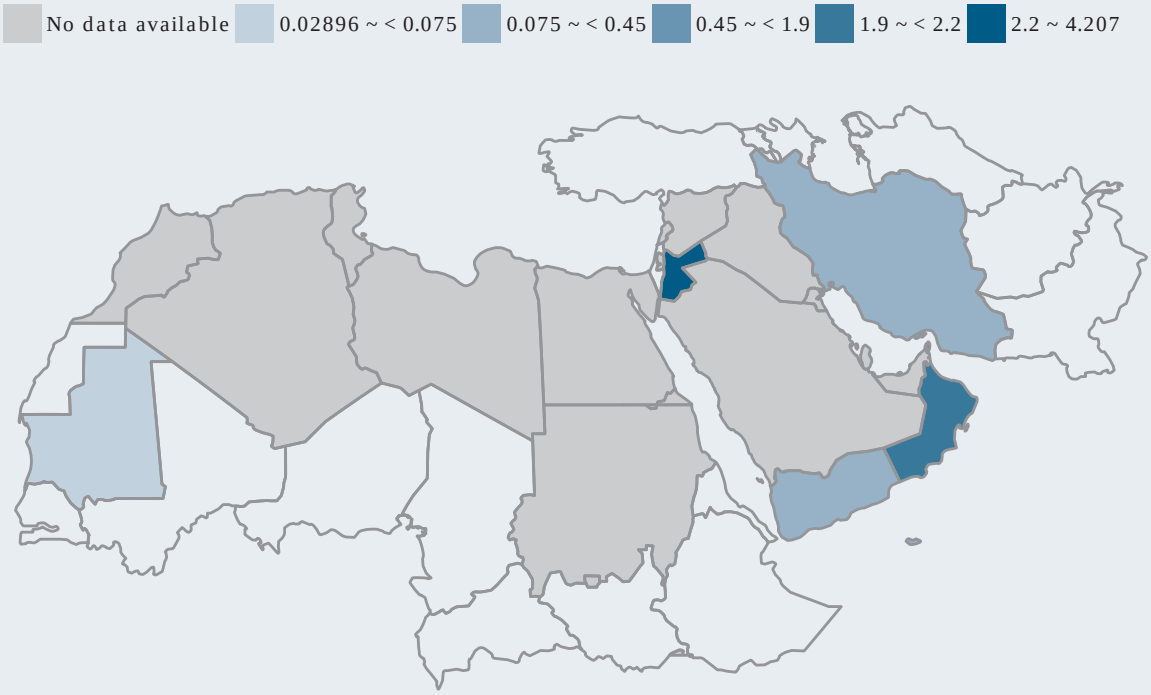


Source: FAO, Statistics Division (FAOSTAT).

Further reading

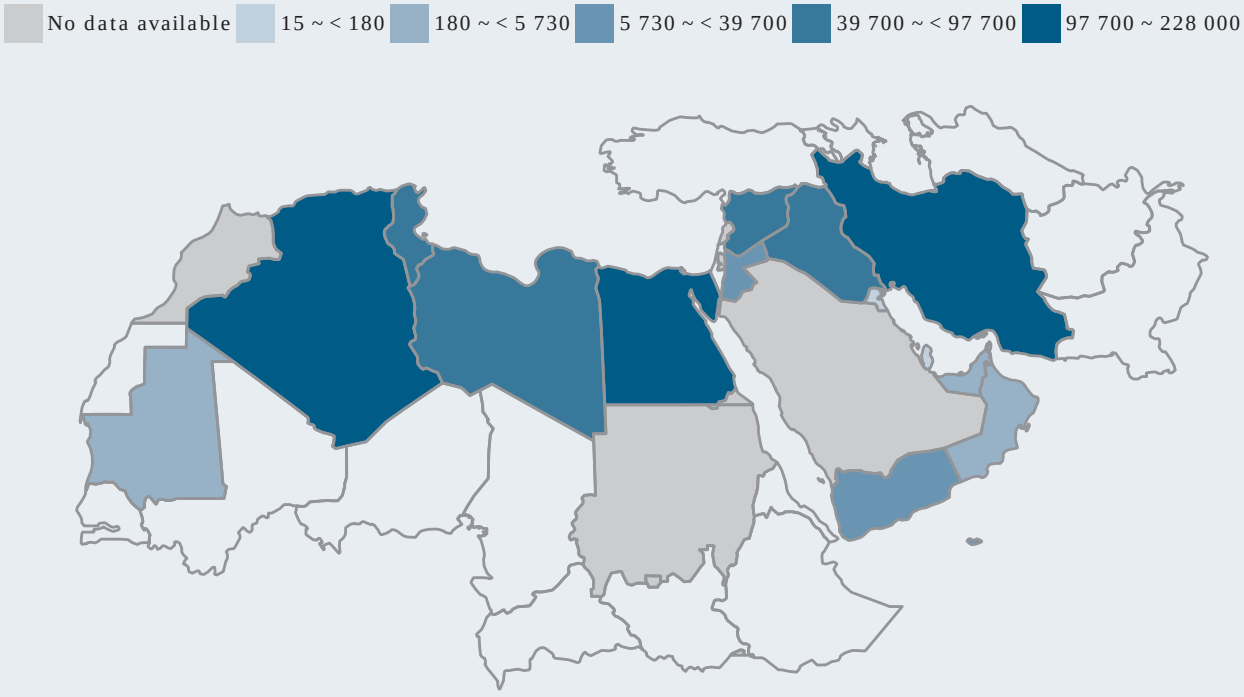
- Schmidhuber, J. and Bruinsma, J. (2011)
- FAO Agriculture Department (www.fao.org/ag/portal/index_en/en/)

MAP 11: **Nitrogen and phosphate fertilizers consumption per ha of arable area and permanent crops (kg/ha, 2011)**



Source: FAO FAO, Statistics Division and FAO, Statistics Division (FAOSTAT).

MAP 12: **Agricultural tractors, total (tractors, 2000-2010*)**



Source: FAO, Statistics Division (FAOSTAT).

Capital and Investment

Investment drives agricultural growth and development by improving productivity and productive capacity. This can be measured either in the form of physical assets or in terms of financial assets. Investment in agriculture is an important factor for analyzing a number of policy issues related to achieving food security and sustainable growth of agriculture. In addition to giving information on the capital base for agricultural activity, it also provides share and trend information on private and public as well as domestic and external resources diverted from short-term consumption and other forms of productive and non-productive expenditures for improving agriculture and rural development.

Although investments are often mobilized by the farmers themselves, expenditures by general government units and public corporations can create a conducive environment – economic incentives – and ensure sufficient availability of public goods such as basic rural infrastructure and market openness. The efficiency of public expenditure for agriculture is therefore a key element of the overall policy mix and will require a reversal of the declining trend observed over the last 20 years.

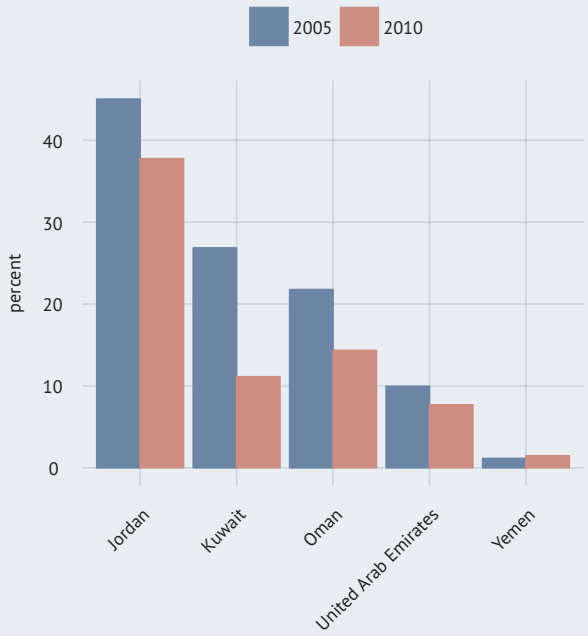
Between 2000 and 2010, total net ODA to the region increased from US$6.2 billion to US$11.7 billion. Much of this increase in ODA was directed to Iraq, where ODA rose from US$136 million to US$2.3 billion. Morocco also saw a significant increase in ODA, where it rose from US$996 million to US$2.5 billion. The Islamic Republic of Iran and Saudi Arabia were the only countries in the region to register a decline in ODA between 2000 and 2010.

The percentage of ODA to agriculture, forestry and fisheries to the entire region was 3.9 percent, the lowest for any developing region. The percentage was highest in the Former Sudan (7.3 percent). Egypt, Lebanon, Morocco and the Syrian Arab Republic were the only other countries in the region where the percentage was six percent or higher. Forestry received almost no ODA. Mauritania and Yemen were the only two countries where ODA to fisheries exceeded two percent.

Further reading

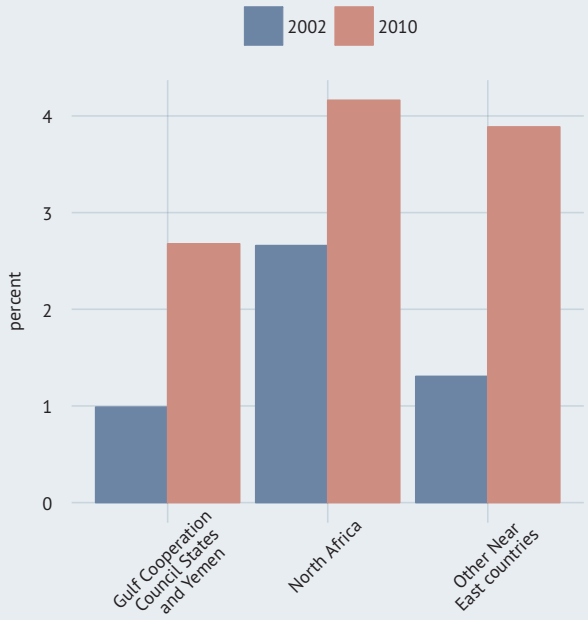
- FAO How to Feed the World in 2050: Investment Brief (www.fao.org/wsfs/forum2050/)
- FAO Foreign Investment in Agriculture (www.fao.org/economic/est/investments/)
- Principles for Responsible Agricultural Investment that Respects Rights, Livelihoods and Resources (www.unctad.org/en/Pages/Home.aspx)
- Foreign Agriculture Investment Database (www.fao.org/tc/policy-support/investment-policy/fdi/en/)

CHART 17: **Credit to agriculture, share of added value in agriculture, selected countries (2005-2010)**



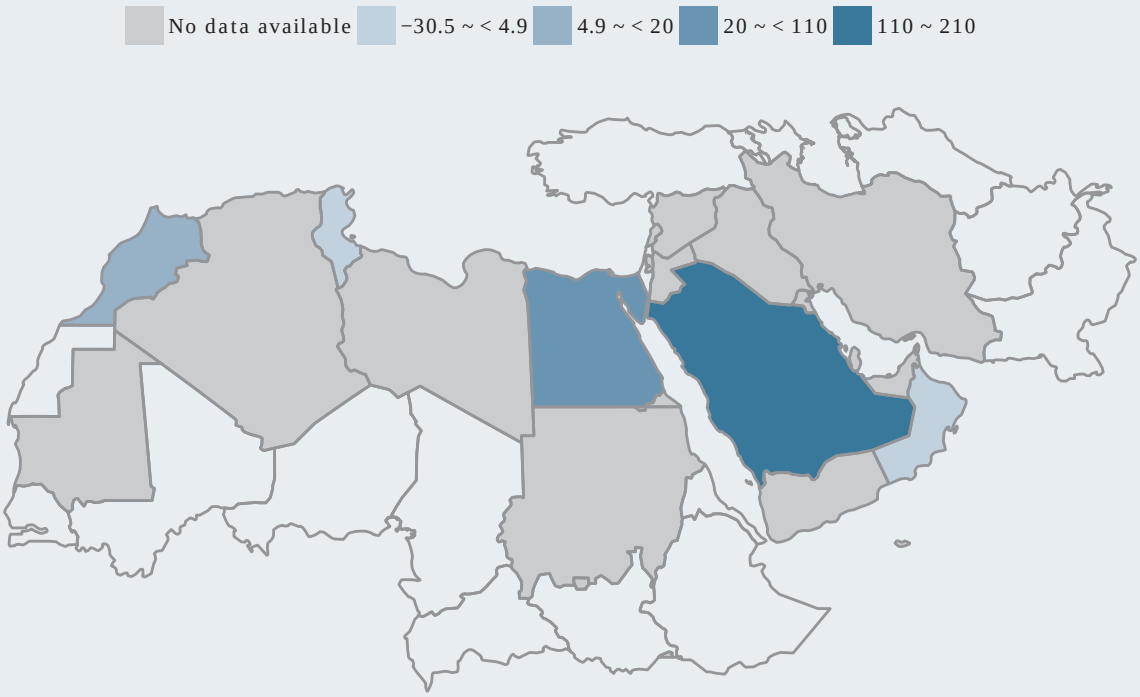
Source: FAO, Statistics Division.

CHART 18: **ODA received in agriculture, total share of ODA (2002 and 2010)**



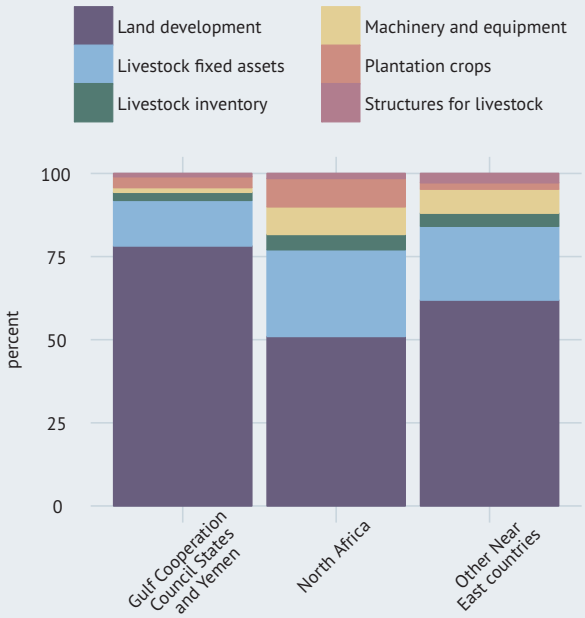
Source: FAO, Statistics Division.

MAP 13: **FDI (inward flows) to agriculture (million US$, 2010-2011*)**



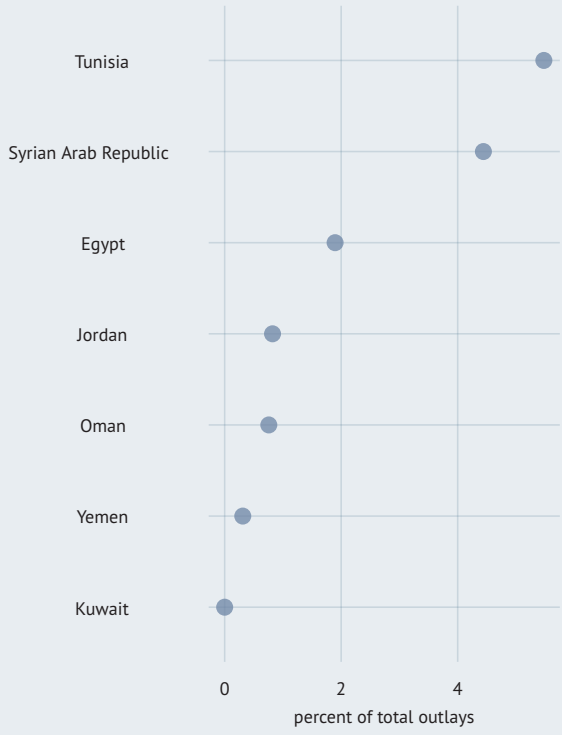
Source: Foreign agriculture investment database.

CHART 19: **Share of components in capital stock (2007)**



Source: FAO, Statistics Division (FAOSTAT).

CHART 20: **Government expenditures in agriculture, forestry, fishing, and hunting, selected countries (2010)**



Source: FAO, Statistics Division (FAOSTAT).

Innovation

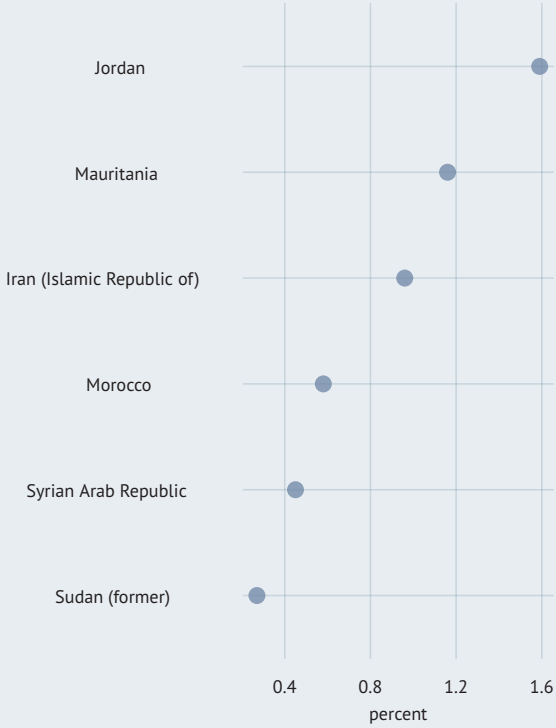
Economic growth is fostered not only by inputs but also through innovation. For innovation to occur, investments in research and development (R&D) must take place, including within agriculture.

Following a decade of slowing growth in the 1990s, global public spending on agricultural R&D increased steadily from US$26.1 billion in 2000 to US$31.7 billion in 2008. Between 2000 and 2008, spending on agricultural R&D in the Near East and North Africa region as a whole increased only slightly from US$1.5 billion to US$1.7 billion. The greatest share of this increase was in the Islamic Republic of Iran, where agricultural R&D spending increased from US$574 million to US$731 million. Increases in other countries were much more modest. In five countries in the region, investment in agricultural R&D declined, with Saudi Arabia registering the greatest drop in spending, falling from US$132 million to US$84 million.

The capacity to innovate depends in part on an ability to harness information and communications technology. Mobile telephony and the Internet have become essential tools in development. In the Near East and North Africa, there were 2.3 fixed Internet broadband subscribers per 100 people in 2011. This is considerably less than the world average (8.5). Only Africa has fewer subscribers per 100 people. The GCC countries have the highest number of subscribers per 100 people in the entire region, with Bahrain leading the way with 13.8. In other countries in the region, the number is much lower.

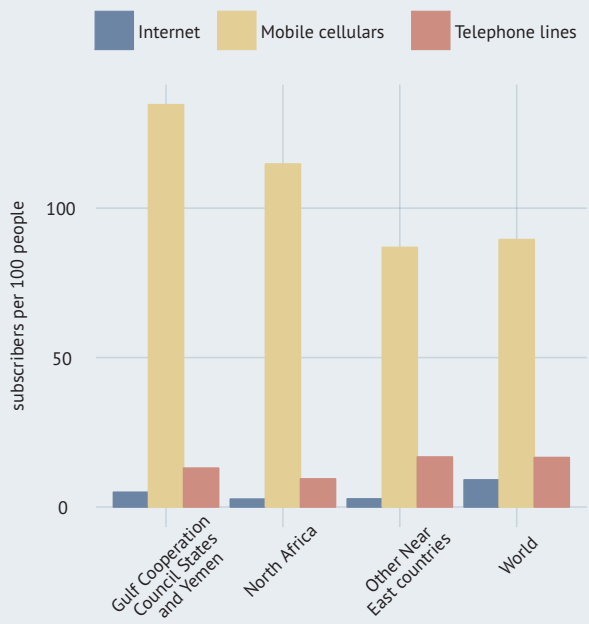
Between 2005 and 2010, developing countries' share of worldwide mobile telephone subscriptions increased from approximately 50 to 75 percent. The Near East and North Africa region as a whole has 94.9 mobile cellular phones per 100 people, slightly lower than the global average. However, in the GCC countries the number is much higher, while Yemen, with 47 per 100 people, has the lowest.

CHART 21: **Total public agricultural research expenditure, share of agricultural GDP, selected countries (2008)**



Source: ASTI.

CHART 22: **Mobile cellular, broadband internet, and telephone lines subscribers (2012)**

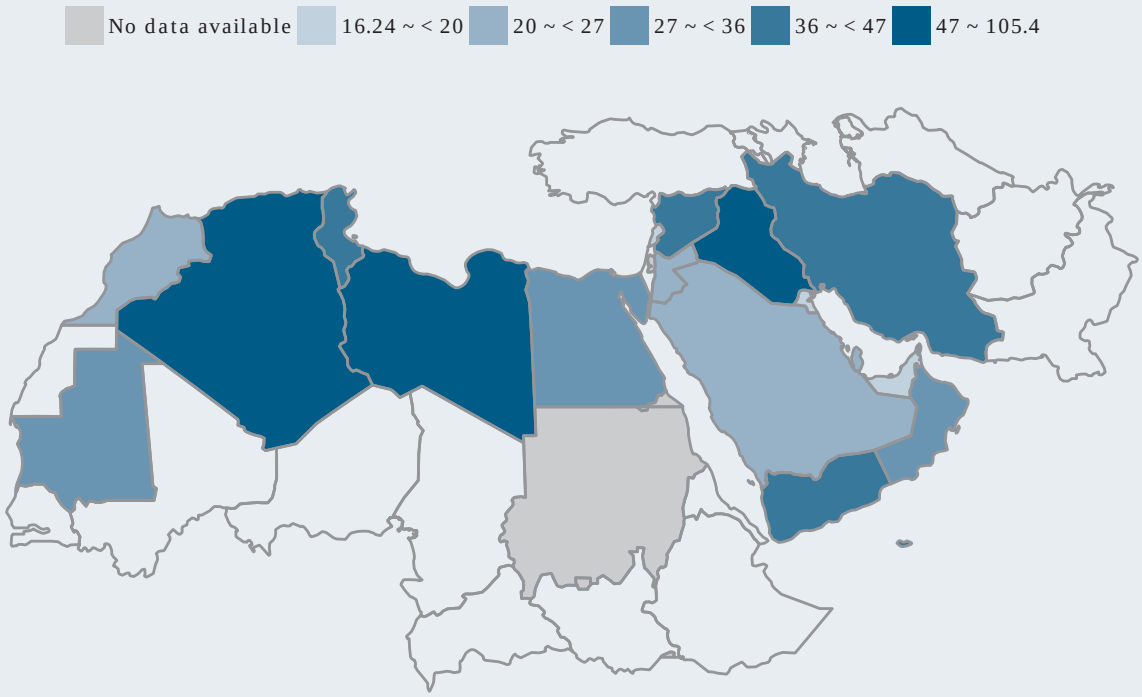


Source: World Bank (WDI).

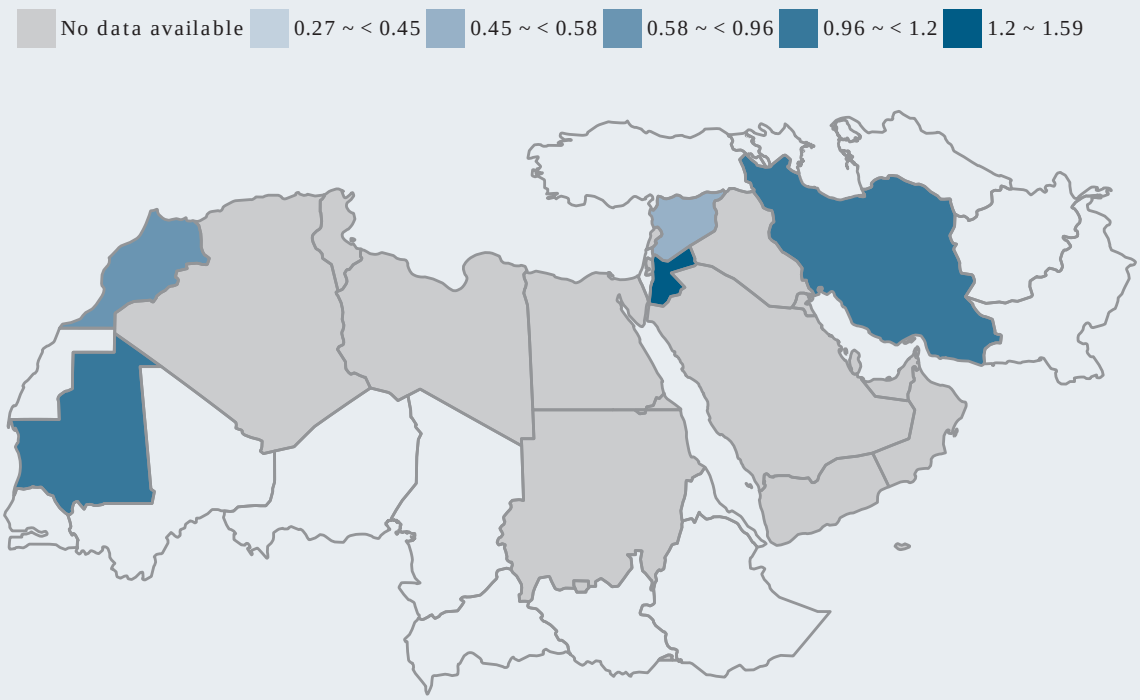
Further reading

- Agricultural Science and Technology Indicators (www.asti.cgiar.org/)
- ASTI Global Assessment of Agricultural R & D Spending (www.ifpri.org/sites/default/files/publications/astiglobalassessment.pdf)

MAP 14: **Access to mobile cellular phone subscriptions annual growth (percent, 2000-2012)**



MAP 15: **Total public agricultural research expenditure, share of agricultural GDP (percent, 2006-2010*)**



Source: ASTI.

TABLE 1: **Population and structure**

	Population									Age composition	
	total		rural		urban		density	agricultural share of total		between 0-14	over 65+
	thousand people 2000	thousand people 2012	percent 2000	percent 2011	percent 2000	percent 2011	people/km² 2011	percent 2000	percent 2012	percent 2010	percent 2010
Regional office for the Near East and North Africa	338 485	432 218	42.6	38.8	57.4	61.2	29.2	29.8	22.7	31.5	4.3
Gulf Cooperation Council States and Yemen	46 235	71 474	40.0	34.4	60.0	65.6	22.4	24.9	16.5	32.9	2.4
Bahrain	638	1 359	11.6	11.3	88.4	88.7	1 701.0	1.1	0.6	20.0	2.1
Kuwait	1 941	2 892	1.9	1.7	98.1	98.3	175.3	1.1	1.0	26.7	2.5
Oman	2 264	2 904	28.4	26.6	71.6	73.4	9.8	36.0	27.6	27.1	2.6
Qatar	591	1 939	3.7	1.2	96.3	98.8	164.6	1.4	0.7	13.5	1.0
Saudi Arabia	20 045	28 705	20.2	17.7	79.9	82.3	12.9	10.1	4.4	30.3	3.0
United Arab Emirates	3 033	8 106	19.8	15.6	80.3	84.4	106.8	5.0	2.8	17.0	0.4
Yemen	17 723	25 569	73.7	67.7	26.3	32.3	44.1	47.9	36.8	44.2	2.5
North Africa	76 657	89 882	41.3	34.5	58.7	65.5	15.6	27.4	21.7	27.7	5.1
Algeria	30 534	36 486	39.2	27.0	60.8	73.0	15.9	24.2	20.2	27.0	4.6
Libya	5 231	6 469	23.7	22.3	76.3	77.7	3.5	5.8	2.7	30.4	4.3
Mauritania	2 643	3 623	60.0	58.5	40.0	41.5	3.6	52.7	49.9	39.9	2.7
Morocco	28 793	32 599	46.7	43.0	53.3	57.0	71.8	33.7	24.5	28.0	5.5
Tunisia	9 456	10 705	36.6	33.7	63.4	66.3	68.7	23.8	19.9	23.5	7.0
Other Near East Countries	215 593	270 862	43.6	41.3	56.4	58.7	46.5	31.6	24.7	32.4	4.6
Egypt	67 648	83 958	57.2	56.5	42.8	43.5	79.8	34.7	26.6	31.5	5.0
Iran (Islamic Republic of)	65 342	75 612	36.0	30.9	64.0	69.1	46.3	26.6	20.7	22.9	5.2
Iraq	23 857	33 703	32.2	33.5	67.8	66.5	73.1	9.3	4.9	43.2	3.3
Jordan	4 827	6 457	20.2	17.3	79.8	82.7	69.6	9.1	5.8	37.5	3.9
Lebanon	3 742	4 292	14.0	12.7	86.0	87.3	428.4	3.6	1.6	24.8	7.3
Sudan											
Sudan (former)	34 188	45 722					19.7	60.9	49.6	40.1	3.6
Syrian Arab Republic	15 989	21 118	48.1	43.9	51.9	56.1	119.6	23.8	19.2	36.9	3.9
Regional Office for Africa	668 229	898 226	68.5	63.9	31.5	36.1	37.6	60.4	54.2	42.4	3.2
Regional Office for Asia and the Pacific	3 640 853	4 110 736	50.0	47.3	50.0	52.7	81.2	34.9	30.2	25.1	7.7
Regional Office for Europe and Central Asia	866 961	900 803	31.7	29.6	68.3	70.4	33.5	11.1	7.8	17.4	14.4
Regional Office for Latin America and the Caribbean	516 162	597 748	24.7	21.0	75.3	79.0	29.7	20.6	15.2	27.9	6.8
World	6 100 688	7 028 688	50.5	47.5	49.7	52.6	53.5	35.7	31.7	28.5	7.5

TABLE 2: **Demographic indicators**

	GNI per capita current US$		Infant mortality per 1,000 live births		Under-5 mortality per 1,000 live births		Life expectancy at birth total	
	US$ 2000	US$ 2012	people 2000-01*	people 2010-12*	people 2000-01*	people 2010-12*	years 2000-01*	years 2010-12*
Regional office for the Near East and North Africa	1 966		34.6	25.6	46.1	32.7	68.5	70.6
Gulf Cooperation Council States and Yemen	5 529		27.2	19.9	35.5	25.1	68.4	71.1
Bahrain	10 450		10.5	8.4	12.2	9.8	74.8	76.4
Kuwait	19 290		10.9	9.6	12.7	11.1	73.4	74.3
Oman	7 360		13.9	10.1	16.1	11.8	72.8	76.3
Qatar			10.3	6.6	11.9	7.7	77.0	78.3
Saudi Arabia	8 350		17.6	7.9	20.6	9.2	72.9	75.3
United Arab Emirates			9.3	7.4	10.9	8.6	74.6	76.8
Yemen	420	1 270	67.4	47.7	92.8	62.1	60.7	62.7
North Africa	1 515		43.9	32.1	58.5	40.2	69.2	71.0
Algeria	1 540		28.2	17.8	32.8	20.8	69.1	70.8
Libya			23.6	13.8	27.5	16.1	72.3	75.0
Mauritania	510	1 110	74.4	65.8	108.9	86.5	59.8	61.2
Morocco	1 320	2 950	40.6	27.7	48.1	32.3	68.3	70.4
Tunisia	2 310	4 150	23.6	14.4	28.1	16.8	72.8	74.8
Other Near East Countries	1 362		34.5	24.6	46.5	32.4	68.2	70.3
Egypt	1 470	3 000	33.8	18.7	41.9	22.0	68.8	70.7
Iran (Islamic Republic of)	1 620		27.0	15.7	32.6	18.4	70.0	73.4
Iraq		5 870	35.2	29.0	43.9	35.3	70.7	69.0
Jordan	1 790	4 720	22.6	16.8	26.9	19.7	72.0	73.6
Lebanon	5 470	9 190	16.1	8.3	18.7	9.7	74.9	79.6
Sudan			66.2	50.6	103.0	75.5		
Sudan (former)	330	1 450					58.3	61.7
Syrian Arab Republic	970		19.2	12.6	22.5	14.9	73.6	74.8
Regional Office for Africa	496	1 383	86.1	63.2	140.6	96.1	50.5	55.9
Regional Office for Asia and the Pacific	2 202	5 612	44.8	30.4	58.7	38.0	68.3	70.9
Regional Office for Europe and Central Asia	11 912	24 003	19.1	12.8	22.8	14.9	73.4	76.3
Regional Office for Latin America and the Caribbean	3 847	9 145	26.4	19.4	32.7	23.3	71.8	74.4
World	5 323	10 116	53.8	38.8	81.5	55.4	67.9	70.5

TABLE 3: **Economy**

	Gross domestic product		Value added, share of GDP			Share of GDP		
	total current US$		agriculture	industry	services	trade	FDI	ODA
	billion US$ 2000	billion US$ 2012	percent 2010-12*	percent 2010-12*	percent 2010-12*	percent 2011-12*	percent 2011-12*	percent 2011
Regional office for the Near East and North Africa	818					82.0	1.4	
Gulf Cooperation Council States and Yemen	386					105.3	1.7	
Bahrain	8					123.7	2.7	
Kuwait	38					95.7	0.2	
Oman	20					94.5	1.1	
Qatar	18					96.5	−0.1	
Saudi Arabia	188	711	2.2	62.6	35.2	86.4	1.7	
United Arab Emirates	104		0.9	57.5	45.1	169.6	2.2	
Yemen	10	36	7.7	29.4	62.9		−2.2	0.0
North Africa	148					92.7	1.6	
Algeria	55	208	6.9	62.1	31.0		1.4	0.0
Libya	34							
Mauritania	1	4	15.5	50.1	34.4	152.3	1.1	0.1
Morocco	37	96	15.1	29.9	55.1	86.6	2.5	0.0
Tunisia	21	46	8.7	29.9	61.4	106.6	0.9	0.0
Other Near East Countries	284					53.0	1.0	
Egypt	100	257	13.9	36.7	49.3	44.8	−0.2	0.0
Iran (Islamic Republic of)	101						0.8	
Iraq	26	210					0.8	0.0
Jordan	8	31	3.4	29.1	67.5	119.1	5.1	0.0
Lebanon	17	43	6.3	20.5	73.2	72.9	8.7	0.0
Sudan		59						0.0
Sudan (former)	12		24.5	28.1	47.4	34.8	4.8	
Syrian Arab Republic	19	74						
Regional Office for Africa	342	1 263				70.8	3.2	0.0
Regional Office for Asia and the Pacific	8 450	23 671	4.9	31.4	63.7	47.6	2.3	0.0
Regional Office for Europe and Central Asia	9 704	21 289	1.8	26.2	72.0	83.6	1.8	
Regional Office for Latin America and the Caribbean	2 080	5 614	6.3	32.4	61.3	46.6	3.0	0.0
World	31 979	69 569				58.6	2.5	

TABLE 4: **Land**

	Land area				Agricultural area				Cropland
	total	agricultural	forest	other	total	arable	permanent		per capita
							crops	meadows & pastures	
	million ha 2011	percent 2011	percent 2011	percent 2011	thousand ha 2011	percent 2011	percent 2011	percent 2011	ha/cap 2011
Regional office for the Near East and North Africa	1 222	33.8	1.9	64.4	521 071	13.7	1.9	85.0	0.17
Gulf Cooperation Council States and Yemen	310	64.2	0.6	35.2	199 201	2.2	0.3	97.5	0.07
Bahrain	0	11.0	0.7	88.3	8	16.3	35.9	47.8	0.00
Kuwait	2	8.5	0.4	91.1	152	7.2	3.3	89.5	0.01
Oman	31	5.7	0.0	94.3	1 770	1.8	2.2	96.0	0.02
Qatar	1	5.7	0.0	94.3	66	21.2	3.0	75.8	0.01
Saudi Arabia	215	80.6	0.5	18.9	173 355	1.8	0.1	98.1	0.12
United Arab Emirates	8	4.8	3.8	91.4	397	12.7	10.5	76.8	0.01
Yemen	53	44.4	1.0	54.5	23 452	5.0	1.2	93.8	0.06
North Africa	577	23.7	1.4	74.9	136 855	15.0	3.5	81.5	0.28
Algeria	238	17.4	0.6	82.0	41 383	18.1	2.2	79.7	0.23
Libya	176	8.9	0.1	91.0	15 585	11.2	2.1	86.6	0.32
Mauritania	103	38.5	0.2	61.2	39 711	1.1	0.0	98.8	0.13
Morocco	45	67.5	11.5	21.0	30 104	26.4	3.9	69.8	0.28
Tunisia	16	64.8	6.6	28.6	10 072	28.2	23.8	48.0	0.49
Other Near East Countries	334	22.8	3.8	73.3	185 015	25.1	2.3	74.1	0.15
Egypt	100	3.7	0.1	96.2	3 665	78.3	21.7		0.04
Iran (Islamic Republic of)	163	30.1	6.8	63.1	48 957	35.8	3.9	60.3	0.26
Iraq	43	18.9	1.9	79.2	8 210	48.7	2.6	48.7	0.13
Jordan	9	11.3	1.1	87.6	1 003	17.5	8.5	74.0	0.04
Lebanon	1	62.4	13.4	24.2	638	17.6	19.7	62.7	0.06
Sudan					108 679	15.7	0.2	84.2	
Sudan (former)									
Syrian Arab Republic	18	75.5	2.7	21.8	13 864	33.3	7.6	59.1	0.27
Regional Office for Africa	2 126	43.6	27.9	30.2	955 135	20.3	2.6	77.8	0.25
Regional Office for Asia and the Pacific	5 013	38.9	31.3	29.8	1 951 899	30.8	4.0	65.4	0.17
Regional Office for Europe and Central Asia	2 694	29.7	38.3	32.0	800 592	41.5	2.5	56.1	0.39
Regional Office for Latin America and the Caribbean	2 013	36.7	46.8	16.4	739 587	22.7	2.7	74.6	0.32
World	12 766	37.4	31.0	32.0	4 911 605	28.6	3.2	68.5	0.22

TABLE 5: **Water resources per capita and irrigation**

	Water resources per capita			Irrigation potential	Irrigation total area equipped	Irrigation equipped area actually irrigated	
	m^3/yr/cap	m^3/yr/cap	m^3/yr/cap	thousand ha	thousand ha	year year	share percent
	1990	2000	2010	2012	2009	1987-2012	1987-2012*
Regional office for the Near East and North Africa							
Gulf Cooperation Council States and Yemen							
Bahrain	235	182	92	4	4	2 000	100
Kuwait	10	10	7	25	11	2 007	82
Oman	749	618	503		59	2 004	100
Qatar	122	98	33	52	13	2 001	49
Saudi Arabia	149	120	87		1 731		
United Arab Emirates	83	49	20		230	2 003	100
Yemen	176	118	87		680		
North Africa							
Algeria	461	382	329	510	570	2 001	80
Libya	162	134	110	40	470	2 000	67
Mauritania	5 711	4 313	3 295	250	45	2 004	51
Morocco	1 170	1 007	908	1 664	1 458	2 004	98
Tunisia	559	486	438	560	445		
Other Near East Countries							
Egypt	1 008	847	706	4 420	3 650	2 002	100
Iran (Islamic Republic of)	2 506	2 104	1 859	15 000	9 133	2 006	77
Iraq	4 352	3 169	2 387	5 554	3 525	1 990	55
Jordan	274	194	151	85	95	2 004	95
Lebanon	1 527	1 203	1 065	178	90		
Sudan							
Sudan (former)	2 435	1 887	1 481	2 784	1 863	2 000	43
Syrian Arab Republic	1 363	1 051	823		1 238		
Regional Office for Africa							
Regional Office for Asia and the Pacific							
Regional Office for Europe and Central Asia							
Regional Office for Latin America and the Caribbean							
World							

TABLE 6: **Labour**

	Employment female	Employment male	Employment in agriculture share of total	Employment in agriculture female	Employment in agriculture male	Labor force participation rate female	Labor force participation rate male	Children in employment % of children ages 7-14
	million people	million people	percent	share of female employment percent	share of male employment percent	percent	percent	total percent
	2010	2010	2005-12*	2005-12*	2005-12*	2010	2010	2000-12*
Regional office for the Near East and North Africa	24	97				21.6	73.5	
Gulf Cooperation Council States and Yemen	4	20				25.8	76.6	
Bahrain	0	1				39.2	87.2	
Kuwait	0	1	2.7	0.0	3.6	43.3	82.2	
Oman	0	1				28.0	79.9	
Qatar	0	1	1.6	0.0	2.7	52.1	95.2	
Saudi Arabia	1	8	4.1	0.2	4.7	17.4	74.2	
United Arab Emirates	1	4	4.2	0.2	5.2	43.7	92.0	
Yemen	1	4				24.8	71.7	18.3
North Africa	6	20				21.7	73.2	
Algeria	2	8	11.7	6.4	12.6	14.7	71.7	
Libya	1	2				30.4	76.9	
Mauritania	0	1				28.4	79.1	21.3
Morocco	3	8	40.2	60.2	33.0	25.9	74.7	4.5
Tunisia	1	2	17.7			25.3	69.7	
Other Near East Countries	14	57				20.5	72.8	
Egypt	5	19	28.2	45.6	28.2	23.5	74.2	7.9
Iran (Islamic Republic of)	4	19	21.2	30.6	19.3	16.1	71.8	
Iraq	1	5	23.4	50.7	17.1	14.3	69.3	14.7
Jordan	0	1	2.0	1.0	2.2	15.3	65.4	1.0
Lebanon	0	1				22.5	70.8	
Sudan								12.5
Sudan (former)	3	7				30.8	76.5	19.1
Syrian Arab Republic	1	4	14.3	22.2	13.2	12.9	71.6	6.6
Regional Office for Africa	141	169				62.8	76.4	
Regional Office for Asia and the Pacific	728	1 168				49.4	80.0	
Regional Office for Europe and Central Asia	175	213	14.1	12.5	13.5	49.9	67.3	
Regional Office for Latin America and the Caribbean	105	155	14.9	9.1	19.7	53.3	80.1	
World	1 201	1 820				50.6	77.3	

TABLE 7: **Inputs**

	Agricultural tractors	Pesticides use	Fertilizers consumption		
	total	per ha of arable land and permanent crops	per ha of arable land and permanent crops		
	tractors 2000-12*	kg/ha 2008-12*	nitrogen kg/ha 2011	phosphate kg/ha 2011	potash kg/ha 2011
Regional office for the Near East and North Africa	651 197		35.94	26.59	3.66
Gulf Cooperation Council States and Yemen	7 086		93.89	40.24	3.79
Bahrain	15	1.87	122.71	17.20	292.43
Kuwait	89		316.25	0.00	244.12
Oman	180	2.20	246.24	19.67	76.18
Qatar	82		8 941.25	0.00	75.00
Saudi Arabia			79.18	58.68	1.79
United Arab Emirates	380		266.20	33.80	6.50
Yemen	6 340	0.08	9.50	0.00	0.41
North Africa	168 530		17.06	47.99	2.35
Algeria	104 529	0.50	7.52	3.84	3.74
Libya	39 733		29.31	15.22	0.00
Mauritania	390	0.03			
Morocco			26.44	34.69	2.30
Tunisia	40 438	0.43	11.23	155.22	1.14
Other Near East Countries	475 581		39.65	14.56	4.30
Egypt	103 188		366.98	85.51	7.57
Iran (Islamic Republic of)	228 000	0.45	13.24	8.34	2.08
Iraq	46 078		32.86	5.79	1.28
Jordan	5 732	4.21	125.89	162.04	487.06
Lebanon			71.01	107.87	35.99
Sudan			5.08	4.01	0.22
Sudan (former)	25 564				
Syrian Arab Republic	97 660		23.29	17.82	0.91
Regional Office for Africa			6.87	3.24	1.55
Regional Office for Asia and the Pacific			106.76	35.62	22.36
Regional Office for Europe and Central Asia	11 467 067		45.08	11.69	12.29
Regional Office for Latin America and the Caribbean			45.66	32.58	32.64
World			73.34	26.83	19.82

TABLE 8: **Agricultural capital stock**

	Gross capital stock									
	total			share						
		p.a. growth		land development	plantation crops	livestock fixed assets	livestock inventory	structures for livestock	machinery & equipment
	million US$ 2007	percent 1990-2000	percent 2000-07	percent 2007	percent 2007	percent 2007	percent 2007	percent 2007	percent 2007
Regional office for the Near East and North Africa	335 938	1.9	1.2	61.9	3.3	21.9	3.9	2.3	6.7
Gulf Cooperation Council States and Yemen	41 163	2.5	1.4	78.2	3.3	13.7	2.4	1.0	1.4
Bahrain	58	3.7	−0.1	62.3	7.1	24.0	4.2	1.8	0.6
Kuwait	310	6.2	3.9	26.4	1.6	58.1	10.2	1.4	2.2
Oman	1 329	2.9	0.5	42.3	4.2	41.2	7.3	3.7	1.3
Qatar	192	6.9	−1.5	63.6	2.2	26.6	4.7	2.1	0.8
Saudi Arabia	23 710	0.8	0.1	87.5	1.7	7.9	1.4	0.3	1.2
United Arab Emirates	3 747	12.4	1.5	75.6	10.0	11.0	1.9	1.1	0.4
Yemen	11 815	2.8	4.0	66.0	4.4	21.7	3.8	1.9	2.2
North Africa	62 717	1.0	0.6	51.0	8.5	26.1	4.6	1.5	8.3
Algeria	14 545	1.0	1.2	42.0	6.9	28.8	5.1	1.4	15.8
Libya	7 531	−0.1	0.7	64.6	5.6	15.4	2.7	0.5	11.1
Mauritania	4 331	3.1	1.2	8.9	0.3	70.9	12.5	6.6	0.7
Morocco	26 006	0.7	0.0	63.2	4.9	22.9	4.0	1.2	3.7
Tunisia	10 304	1.8	0.8	40.5	25.5	19.2	3.4	0.9	10.5
Other Near East Countries	232 058	2.1	1.4	61.9	1.9	22.2	3.9	2.8	7.2
Egypt	36 793	2.3	1.5	73.6	2.3	15.1	2.7	2.3	4.0
Iran (Islamic Republic of)	85 173	1.0	1.6	63.5	1.7	17.9	3.2	1.2	12.6
Iraq	31 881	−0.0	0.2	83.2	0.9	8.8	1.5	0.5	5.1
Jordan	1 530	1.8	1.1	51.1	7.4	27.1	4.8	0.9	8.8
Lebanon	2 845	0.6	0.1	73.2	16.8	6.5	1.1	0.4	2.0
Sudan									
Sudan (former)	48 106	4.5	1.4	29.4	0.4	50.9	9.0	9.0	1.3
Syrian Arab Republic	25 731	4.1	2.4	73.9	4.2	11.2	2.0	0.5	8.3
Regional Office for Africa	430 811	1.8	2.0	25.5	7.3	48.0	8.5	7.7	3.0
Regional Office for Asia and the Pacific	1 719 508	0.9	0.7	32.5	10.2	25.9	4.6	4.1	22.6
Regional Office for Europe and Central Asia	1 239 351		−0.4	35.2	5.8	16.5	2.9	4.3	35.3
Regional Office for Latin America and the Caribbean	725 911	0.5	0.9	24.3	6.9	47.1	8.3	5.2	8.1
World	4 797 327	0.6	0.6	31.0	7.6	26.8	4.7	5.4	24.5

TABLE 9: **Foreign direct investment and official development assistance**

	FDI, inward flows				ODA				
	agriculture, hunting, forestry, fishing		food, beverages, tobacco		total receipts		agriculture	forestry	fishery
	thousand US$ 2000-01*	thousand US$ 2009-12*	thousand US$ 2000-01*	thousand US$ 2009-12*	million US$ 2000	million US$ 2010	share of total percent 2010	share of total percent 2010	share of total percent 2010
Regional office for the Near East and North Africa					6 205	11 726	3.9	0.0	0.7
Gulf Cooperation Council States and Yemen					688	958	2.7	0.0	2.4
Bahrain					0	0			
Kuwait					0	0			
Oman		0		0	11	21	0.3	0.0	0.0
Qatar		0		0	0	0			
Saudi Arabia		6 000	0	177 000	3	0			
United Arab Emirates					0	0			
Yemen					673	937	2.7	0.0	2.4
North Africa					2 244	3 676	4.2	0.0	1.6
Algeria					225	294	0.4	0.0	2.8
Libya					0	46	0.1	0.0	0.0
Mauritania	0				277	379	1.0	0.0	2.5
Morocco	6 150	9 720	0	0	996	2 138	6.8	0.0	1.9
Tunisia	6 190	0	12 440	0	746	818	0.5	0.0	0.1
Other Near East Countries					3 273	7 092	3.9	0.0	0.0
Egypt	15 860	30 400	35 740	0	1 970	2 531	6.0	0.0	0.0
Iran (Islamic Republic of)			42 500		182	128	1.4	0.3	0.0
Iraq					136	2 337	2.5	0.0	0.0
Jordan	4 620		0		709	1 113	0.2	0.0	0.0
Lebanon					133	490	6.2	0.2	0.0
Sudan					0	0			
Sudan (former)							7.3	0.1	0.0
Syrian Arab Republic					143	494	6.1	0.0	0.0
Regional Office for Africa					24 913	42 252	6.6	0.5	0.3
Regional Office for Asia and the Pacific					22 256	43 802	4.3	0.4	0.1
Regional Office for Europe and Central Asia					5 636	8 877			
Regional Office for Latin America and the Caribbean					8 633	13 085	5.6	2.5	0.4
World					68 583	123 943			

TABLE 10: **Government expenditures**

	Agriculture, forestry, fishing, and hunting				Environmental Protection	
	% of total outlays		% of agricultural GDP		% of total outlays	
	cash percent 2009-12*	non-cash percent 2009-12*	cash percent 2009-12*	non-cash percent 2009-12*	cash percent 2009-12*	non-cash percent 2009-12*
Regional office for the Near East and North Africa						
Gulf Cooperation Council States and Yemen						
Bahrain						0.4
Kuwait	0.0				0.0	
Oman	0.8					
Qatar					0.5	
Saudi Arabia						
United Arab Emirates						
Yemen	0.3		1.2		0.9	
North Africa						
Algeria		3.6		23.4		0.3
Libya						
Mauritania						
Morocco						
Tunisia	5.5		17.3		1.6	
Other Near East Countries						
Egypt	1.9		4.3		0.4	
Iran (Islamic Republic of)	1.4				0.1	
Iraq						
Jordan	0.8		8.4		0.1	
Lebanon		0.2		1.5		0.0
Sudan						
Sudan (former)						
Syrian Arab Republic	4.4		6.0			
Regional Office for Africa						
Regional Office for Asia and the Pacific						
Regional Office for Europe and Central Asia						
Regional Office for Latin America and the Caribbean						
World						

TABLE 11: **Innovation**

	Agricultural R&D spending		Total public agric. research expenditures	Fixed broadband Internet per 100 people	Mobile cellulars per 100 people	Telephone lines per 100 people	CPIA business regulatory environment rating
	million 2005 PPP US$	million 2005 PPP US$	share of GDP percent	subscribers	subscriptions	lines	(1=low to 6=high) rating
	2000	2008	2008	2011	2011	2011	2012
Regional office for the Near East and North Africa	1 541	1 731		2.3	94.9	14.7	
Gulf Cooperation Council States and Yemen	214	187		4.3	130.5	12.8	
Bahrain	1	2		13.8	128.0	20.9	
Kuwait	2	4		1.7	175.1	18.3	
Oman	18	25		1.8	169.0	10.1	
Qatar	5	8		8.7	123.1	16.5	
Saudi Arabia	132	84		5.6	191.2	16.5	
United Arab Emirates	31	18		11.0	148.6	23.1	
Yemen	25	46		0.4	47.0	4.3	3.0
North Africa	280	289		2.5	110.2	10.0	
Algeria	102	112		2.8	99.0	8.5	
Libya	23	11		1.1	155.7	15.6	
Mauritania	6	6	1.2	0.2	93.6	2.0	3.0
Morocco	104	96	0.6	1.8	113.3	11.0	
Tunisia	46	63		5.1	116.9	11.5	
Other Near East Countries	1 047	1 255		1.8	80.5	16.7	
Egypt	298	293		2.2	101.1	10.6	
Iran (Islamic Republic of)	574	731	1.0	2.4	74.9	37.1	
Iraq	40	69			78.1	5.5	
Jordan	13	18	1.6	3.2	118.2	7.4	
Lebanon	13	18		4.9	79.5	20.3	
Sudan							2.5
Sudan (former)	38	52	0.3	0.0	56.1	1.1	
Syrian Arab Republic	71	74	0.4	0.6	63.2	20.9	
Regional Office for Africa	1 317	1 748		0.2	53.2	1.4	
Regional Office for Asia and the Pacific	9 942	13 454		6.5	81.0	14.1	
Regional Office for Europe and Central Asia	6 267	7 315		20.0	128.7	36.9	
Regional Office for Latin America and the Caribbean	2 826	3 302		7.7	105.3	18.1	
World	26 053	31 744		8.5	85.4	17.0	

PART

2

Hunger dimensions

A total of 842 million people in 2011–13, or more than one in eight people in the world, were estimated to be suffering from chronic hunger, regularly not getting enough food to conduct an active life. The total number of undernourished has fallen by 17 percent since 1990–92. In the Near East and North Africa region, there are 43.7 million undernourished people or about 11 percent of the population.

Although the prevalence of undernourishment offers a first idea of the extent and distribution of hunger in the world, food security is too complex an issue for all of its dimensions to be caught in a single indicator. The 2009 Declaration of the World Summit on Food Security states that "Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food, which meets their dietary needs and food preferences for an active and healthy life." Based on this definition, four food security dimensions can be identified: food availability, economic and physical access to food, food utilization and stability (vulnerability

and shocks) over time. To understand the complexity of the problem of food insecurity and identify measures for addressing it, all its dimensions, manifestations, and underlying factors have to be assessed and measured.

Food insecurity can be caused by insufficient supply of food or insufficient access to the food supply. Poverty plays an important role in determining access to food, but the relationship between poverty and food insecurity is not always straightforward. Food security is also conditioned by food prices and other social and economic factors and can be affected, often very significantly, by political instability and the presence of natural hazards. An inadequate diet may also result from a lack of vitamins or micronutrients or an imbalance in the availability of macronutrients. Food insecurity can arise even when a sufficient and balanced diet is available, because of unsafe or unhealthy foods.

To understand the complexity of the problem, underlying factors have to be assessed and measured. FAO has compiled a suite of indicators that supplements measurements of the number and prevalence of undernourishment to capture the multifaceted character of food insecurity. Indicator selection is also shaped by the availability of reliable data and the possibility of establishing meaningful comparisons across regions and time periods. Some indicators look at food insecurity as an outcome: this is the case of the number of undernourished people, the prevalence of undernourishment in the population, the extent of nutrition gaps, and anthropometric evidence. Other indicators focus on the conditions that generate food insecurity, such as poverty; food availability, access, affordability and utilization; and vulnerability and instability.

This chapter presents the main food security indicators computed by FAO, starting from outcomes and moving on to consider the conditions that characterize and can generate food insecurity. The presence of several indicators for one phenomenon poses significant measurement challenges. One challenge is consistently summarizing the information conveyed by multiple indicators; another is understanding how they relate to each other. The following sections outline some of the associations and regularities that emerge among different indicators for the Near East and North Africa region. These are meant to signal areas for further investigation, and do not necessarily imply formal or causal relationships.

Key Resources

Report of the expert consultation meeting on food losses and waste reduction in the Near East region: Towards a regional comprehensive strategy

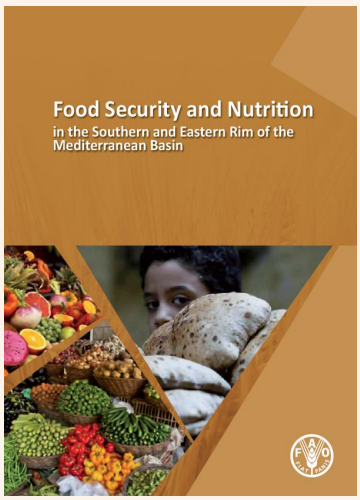
In response to recommendations made by the 31st Session of FAO Regional Conference for the Near East (NERC), and realizing the importance of sharing knowledge about the problem of food losses and waste and its impact on food security at the national and regional levels, RNE took the initiative of organizing this regional Expert Consultation Meeting (ECM), which was the first regional meeting that convened key policy actors in the field of food security and related domains. The objective was to formulate a framework for addressing food losses and waste reduction as part of broader food security strategies for the countries of the region.

Webpage: http: //faorne.net/Pages/Events.aspx?l=104128&DId=0&CId=EG&lang=EN&CMSId=52&id=1025

Food Security and nutrition in the Southern and Eastern Rim of the Mediterranean Basin

This study argues that increasing agricultural productivity and strengthening the food system — understood as the entire chain from the production to the consumption of food, as well as the nutrition and jobs it provides — offer solutions to some of the many complex and intertwined challenges facing the region. Reducing the productivity gaps in cereal yields, investing in agriculture research and development, improving food safety measures and giving special attention to the rural poor could all greatly contribute to reducing the dependency of the region on food imports and the promotion of a more equitable and balanced economic growth. This report analyzes the causes of food insecurity and malnutrition in the region at both household and national levels and proposes a series of remedial policy interventions.

Webpage: http://neareast.fao.org/Download.ashx?file=app_uploads/XF2013000108/Files/Food_Security_Nutrition_Southern_Eastern_Rim_Mediterranean_Basin.pdf



Number undernourished and their prevalence in the population

There are two established targets against which progress in reducing hunger is assessed. One is the 1996 World Food Summit (WFS) target, which is to halve the number of hungry people; the other is the 2001 Millennium Development Goal (MDG) hunger target, which is to halve the proportion of hungry people in the total population. Both targets have 1990 as the starting year and 2015 as the target year. To monitor progress towards the World Food Summit and MDG targets, FAO regularly computes and publishes updated estimates of the number of undernourished people and their prevalence in the total population. This indicator refers to the number and proportion of the population whose energy intake is likely to fall below minimum requirements.

According to the *State of Food Insecurity in the World 2013*, (SOFI 2013), the region as a whole is not on course to meet the WFS or MDG targets. The number of undernourished people has risen from 25.8 million in 1990-1992 to the current level of 43.7 million, and the proportion of undernourished in the population has risen by 11.1 percent.

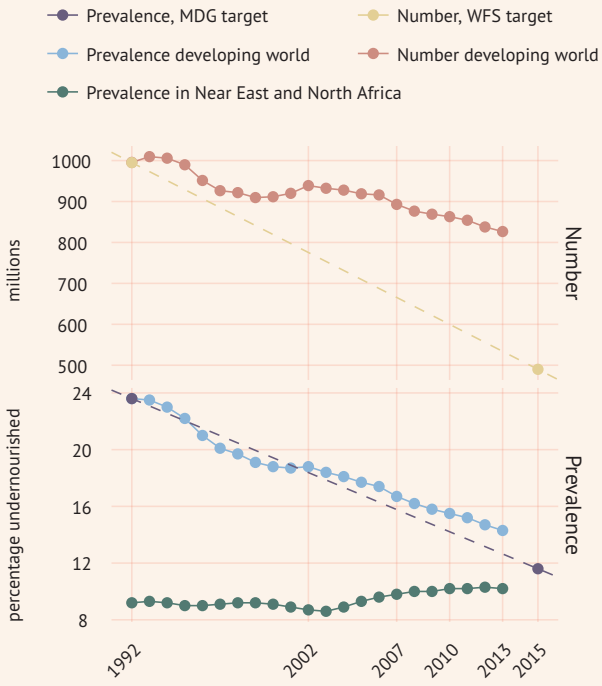
Most of the undernourished in the region are concentrated in relatively few countries. Sudan has the highest number of undernourished (17.8 million) and the highest prevalence of undernourishment (38.9 percent). Iraq has seen a sharp increase in the prevalence of undernourishment, increasing from 10 percent in 1990-1992 to 26.2 percent in 2011-2013. Yemen, Mauritania, Morocco and Syrian Arab Republic are the only four other countries in the region where the prevalence of undernourishment is higher than one percent.

As part of FAO's new suite of indicators, additional figures are presented for the prevalence of food inadequacy, which indicates the risk that individuals will be living on a diet that prevents them from effectively discharging an economic activity requiring significant physical effort. Compared with the prevalence of undernourishment, the prevalence of food inadequacy also includes individuals with a food energy deficit who would not be considered undernourished under normal conditions, but who may be undernourished when carrying out the intense physical work they engage in owing to a lack of alternatives. Trends for this indicator are similar to those for the prevalence of undernourishment, but the indicator's level offers insights into the inadequacy of food supply.

Further reading

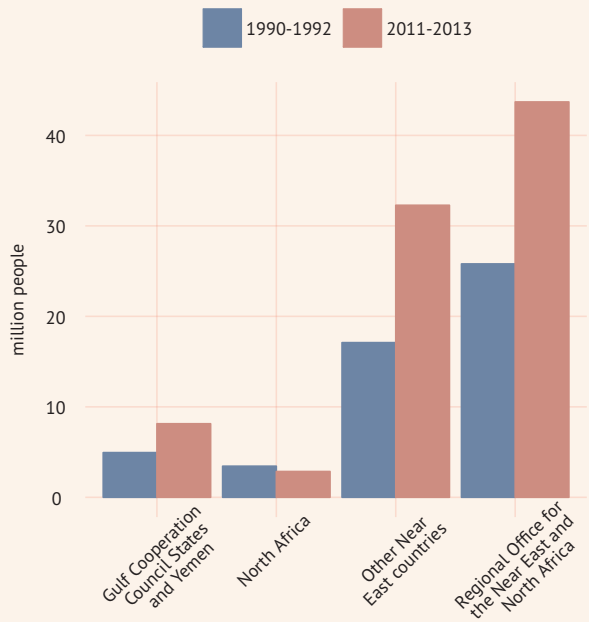
- FAO The State of Food Insecurity in the World 2013 - The multiple dimensions of food security (www.fao.org/publications/sofi/en/)
- FAO The State of Food Insecurity in the World 2012 - Economic Growth Is Necessary but Not Sufficient to Accelerate Reduction of Hunger and Malnutrition (www.fao.org/publications/sofi/en/)
- FAO Hunger Portal (www.fao.org/hunger)

CHART 23: **Undernourishment in the developing world (1990-1992 to 2011-2013)**



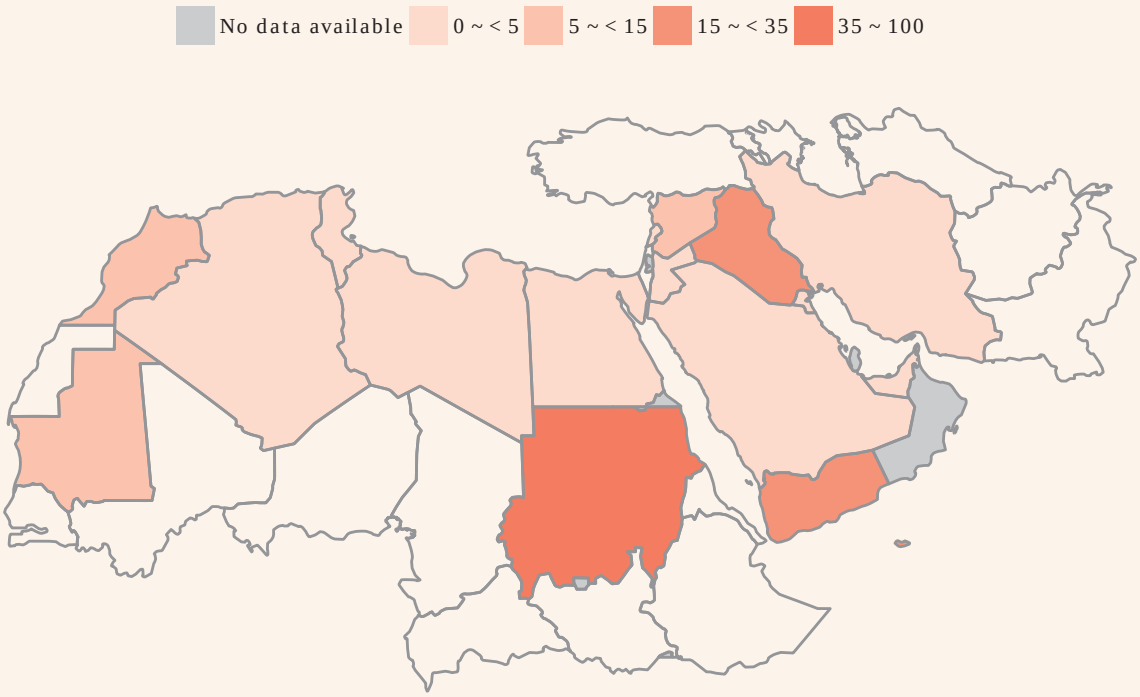
Source: FAO, Statistics Division.

CHART 24: **Number of people undernourished (1990-1992 and 2011-2013)**



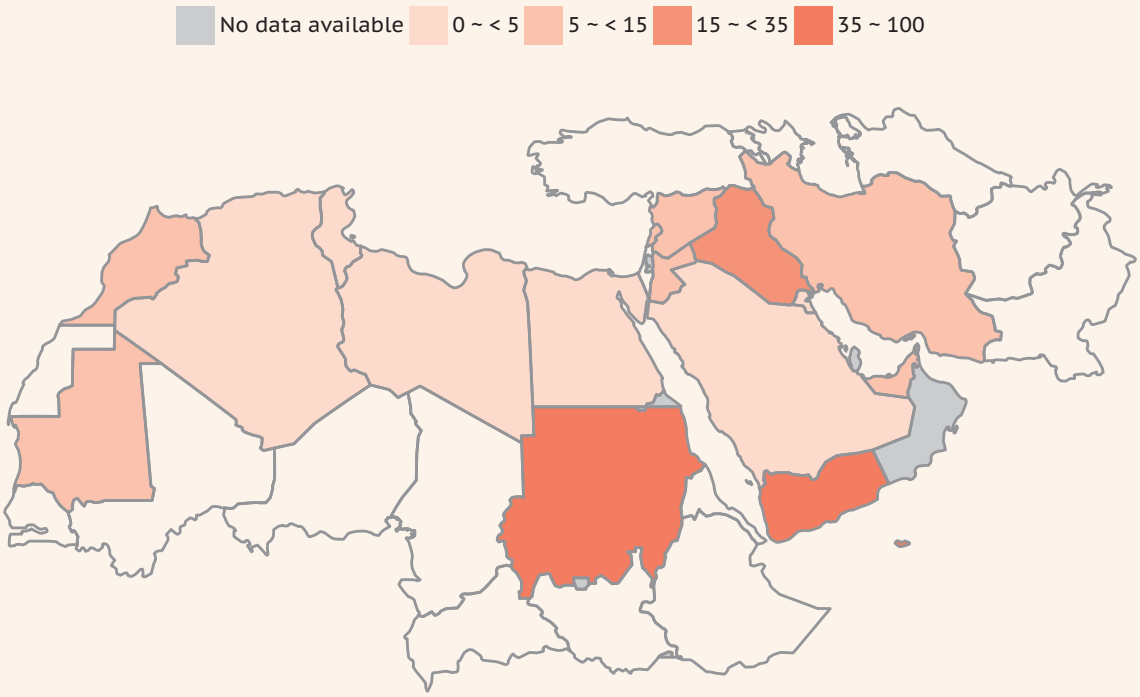
Source: FAO, Statistics Division.

MAP 16: **Map of hunger (percent, prevalence of undernourishment 2011-2013)**



Source: FAO, Statistics Division.

MAP 17: **Prevalence of food inadequacy (percent, 2011-2013)**



Source: FAO, Statistics Division.

Anthropometric indicators

Anthropometric measures are an important element of the new FAO suite of food security indicators. They convey information on the most dramatic and long-lasting consequences of chronic and acute undernourishment. Measures in children under five years of age can approximate the nutritional status of a population. Stunting is the outcome of prolonged inadequate nutrition and/or repeated infections; wasting results from acute malnutrition; and low body weight reflects a combination of chronic and acute malnutrition. Anthropometric data are less readily available than other indicators and are not updated as regularly, which prevents full comparisons across countries, regions and time periods.

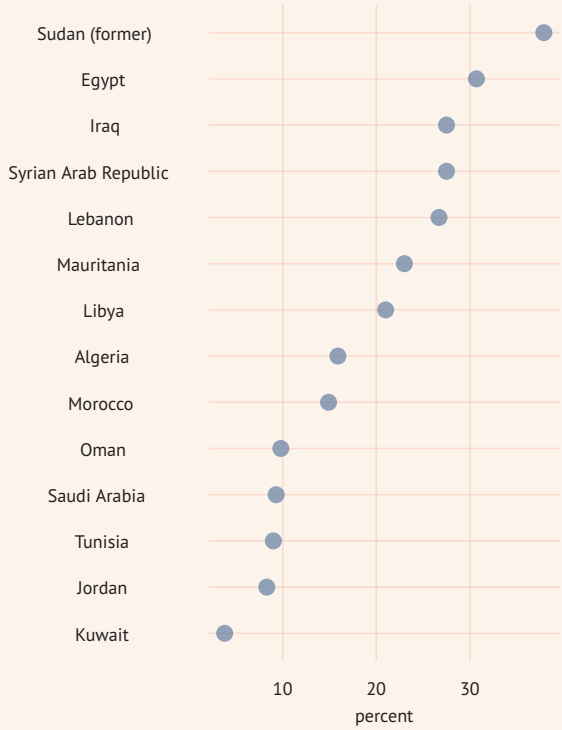
As SOFI 2013 points out, progress in food utilization does not always go hand in hand with progress in food access and availability. This reflects, to some extent, the nature of malnutrition and its associated anthropometric indicators, which capture not only the effects of food insecurity but also those of poor health and diseases such as diarrhea, malaria, HIV/AIDS and tuberculosis. Stunting, in particular, is a largely irreversible symptom of inadequate nutrition; hence improvements will only be visible over a longer period of time. Between 2005 and 2011, seven countries in the region reported a stunting rate of at least 20 percent. Many are part of the Near East, and several of these countries have experienced wars in recent years. Only two countries, however, had rates over 30 percent. Nutrition-related disorders can also be prevalent in countries where the number of undernourished is relatively low. In Libya, for instance, the prevalence of undernourishment was reported to be less than 5 percent but more than 20 percent of children under five years of age were stunted between 2005 and 2011.

Underweight is a much more sensitive and direct indicator of food utilization, showing improvements more promptly than does stunting. But again, changes at the global level mask considerable differences between regions. However, recent data on stunting and wasting are not available from those countries in the region where the prevalence of undernourishment is the highest. Mauritania and the former Sudan both had rates that were over 10 percent.

Further reading

- FAO Nutrition and Consumer Protection Division (www.fao.org/food/)
- UNICEF Nutrition (www.unicef.org/nutrition/)

CHART 25: **Percentage of children under 5 years of age who are stunted (2005-2011*)**

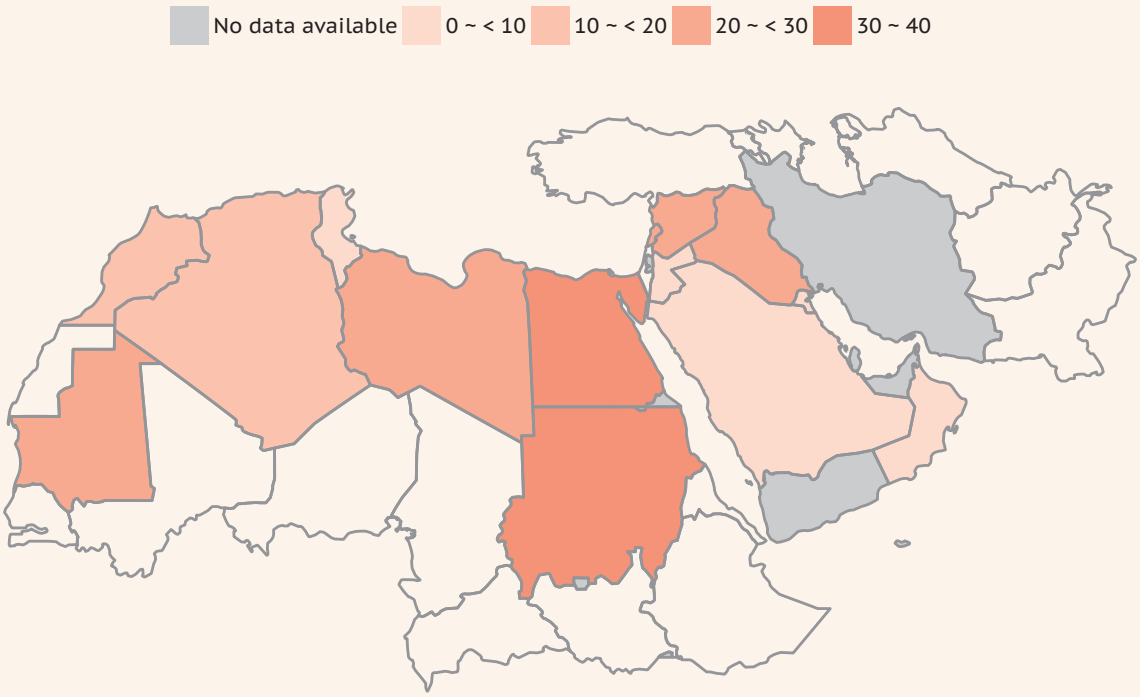


Source: FAO, Statistics Division.

CHART 26: **Percentage of children under 5 years of age who underweight (2005-2011*)**

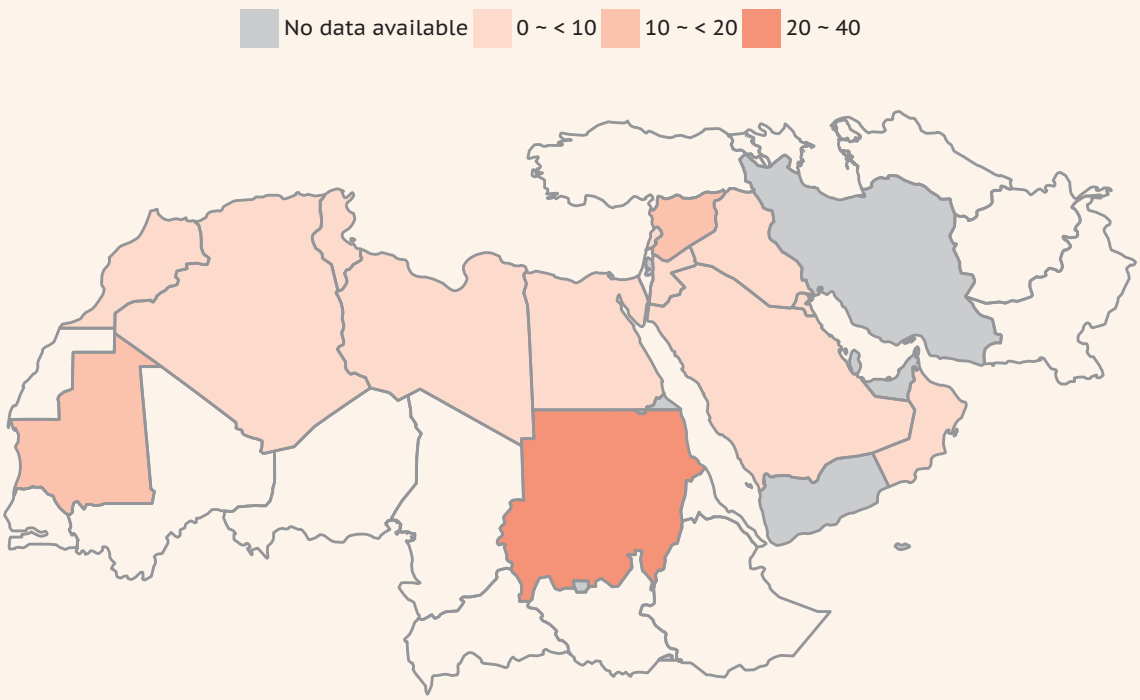
Source: FAO, Statistics Division.

MAP 18: **Percentage of children under 5 years of age who are stunted (percent, 2005-2011*)**



Source: FAO, Statistics Division.

MAP 19: **Percentage of children under 5 years of age who are underweight (percent, 2005-2011*)**



Source: FAO, Statistics Division.

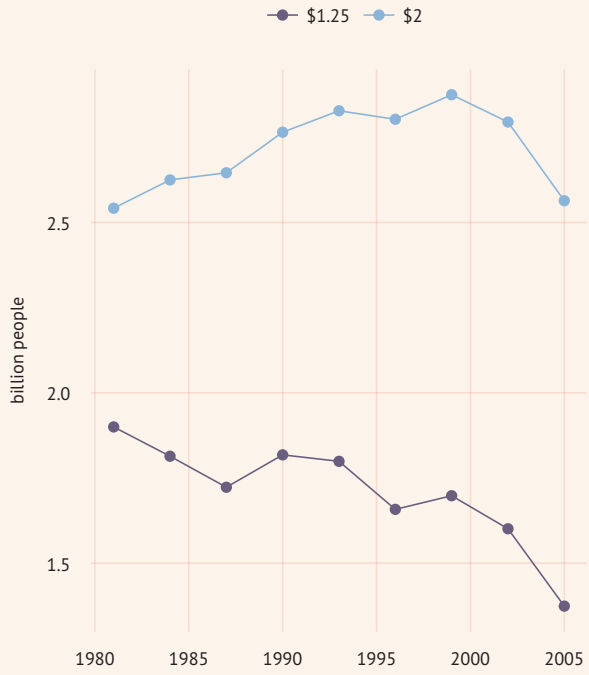
Poverty

Poverty is a main determinant of hunger. Poor households generally spend large shares of their incomes on food, and many of them – even those engaged in farming – are net food buyers. Poor families' inability to consume enough food to meet dietary requirements can have long-lasting impacts on labour productivity, which hampers development prospects.

There has been considerable progress in poverty reduction over recent decades, but improvements have been uneven across regions. Two of the indicators used to measure progress toward reaching the MDG goal of reducing by half, between 1990 and 2015, the proportion of people whose income is less than one dollar a day are: the poverty rate, which is the proportion of the population living on less than a dollar a day, measured at 2005 international prices, adjusted for purchasing power parity (PPP) and; the poverty gap, which is the mean shortfall of the total population from the poverty line (counting the non-poor as having zero shortfall), expressed as a percentage of the poverty line. Data on poverty are not available from every country in the region, but there is poverty information from many of the countries with high levels of undernourishment.

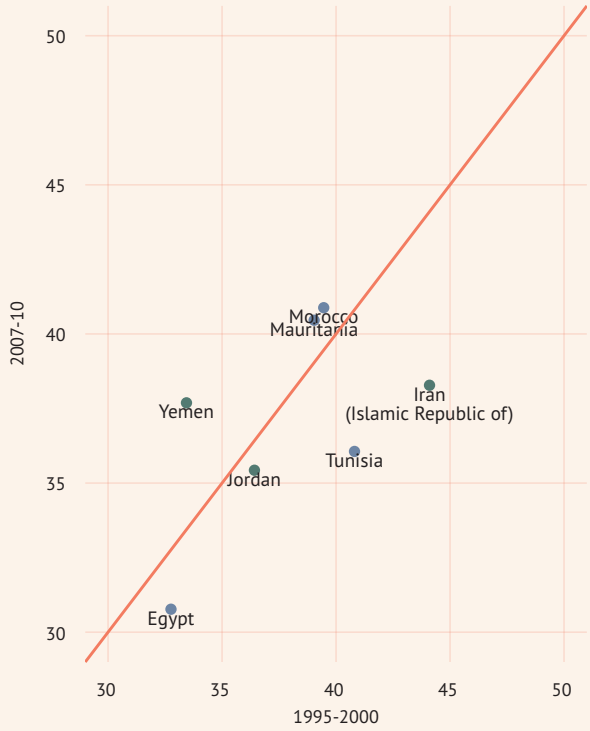
Higher levels of poverty are linked with higher prevalence of undernourishment, although there is not a one-to-one correlation between hunger and extreme poverty. For example, Mauritania has the highest percentage of people living under the US$ 1.25 poverty line (23.4 percent), but a relatively low prevalence of undernourishment. In Iraq, only 2.8 percent of the population lives below the extreme poverty line, but the prevalence of undernourishment is third highest in the region. In Yemen the correlation between poverty and hunger is stronger. Yemen has the third highest percentage of people living in extreme poverty (17.5 percent) and the second highest prevalence of undernourishment.

CHART 27: **People in the world living on less than 2005 PPP $1.25 and $2 a day (1981-2005)**



Source: World Bank (WDI).

CHART 28: **Gini coefficient for Near East countries (1995-2000 and 2007-2010)**

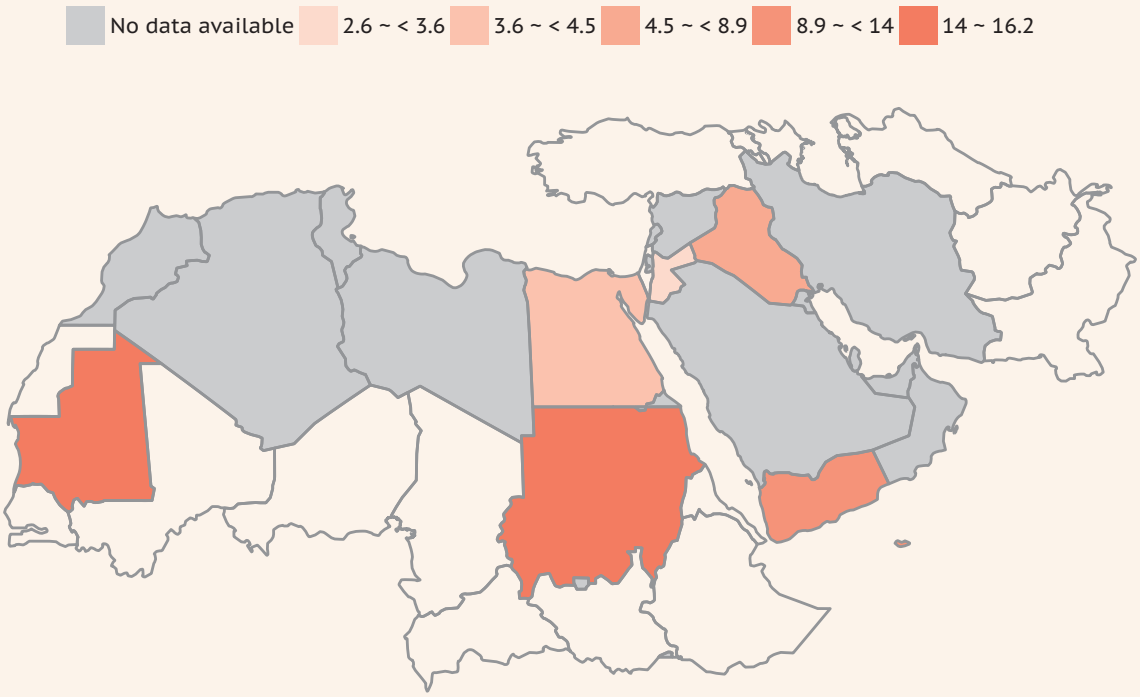


Source: World Bank (WDI).

Further reading

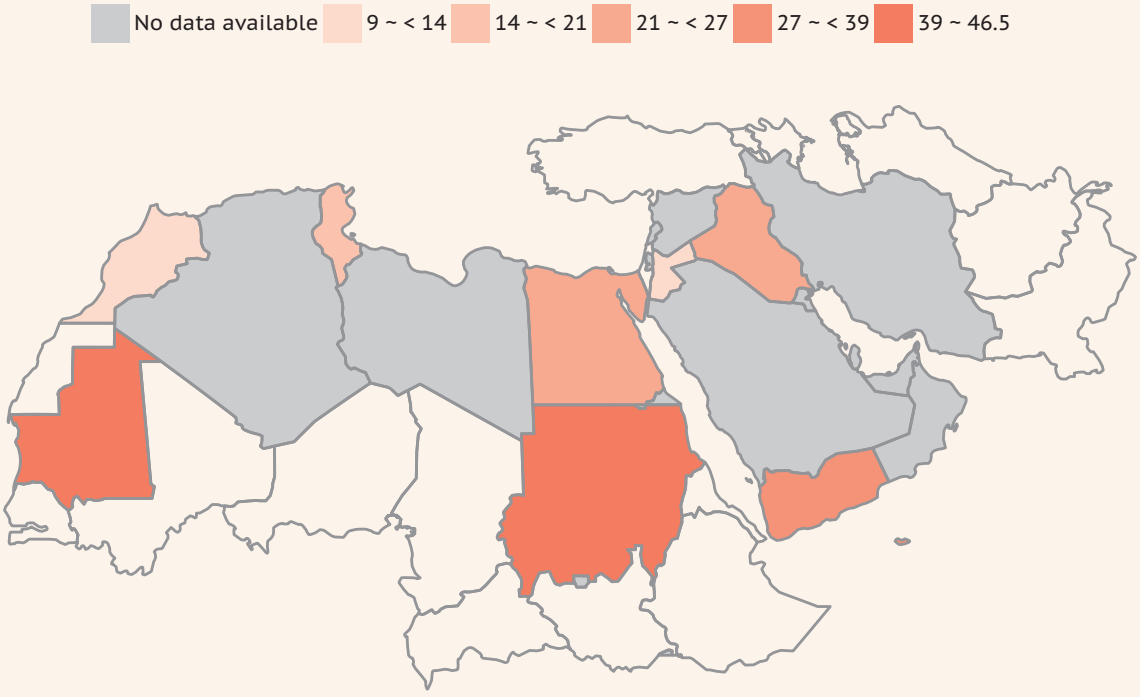
- MDG Indicators web site: http://mdgs.un.org/unsd/mdg/Metadata.aspx?IndicatorId=0&SeriesId=584
- World Bank Poverty Reduction and Equity Group (wwwr.worldbank.org/poverty)

MAP 20: **Poverty gap at national poverty line (percent, 2005-2012*)**



Source: World Bank (WDI).

MAP 21: **Poverty headcount ratio at national poverty line, share of population (percent, 2005-2011*)**



Source: World Bank (WDI).

Food Availability

Food availability is one of the four dimensions of food security. Supplying enough food to a given population is a necessary, albeit not a sufficient, condition to ensure that people have adequate access to food. As SOFI 2013 notes, over the last two decades, food supplies have grown faster than the population in developing countries, and consequently there has been an increase in per capita food availability. Dietary energy supplies have also risen faster than average dietary energy requirements, resulting in higher levels of energy adequacy in most developing regions.

Over recent decades, trends in food production per capita have been generally positive across most regions. This is true for the Near East and North Africa region. However, progress has been uneven. Out of the GCC countries, only Kuwait and Oman have shown an increase in the value of per capita agricultural production since 1990-1992. All the other GCC countries, as well as Lebanon, Mauritania, the Islamic Republic of Iran and Iraq have all registered declines.

Average dietary energy supply adequacy – dietary energy supply as a percentage of the average dietary energy requirement – has risen by almost 10 percent over the last two decades in developing regions as a whole. This improvement is consistent with the reduction in undernourishment from about 24 percent to 14 percent of total population between 1990–92 and 2011–13. The Near East and North Africa region runs counter to this global trend. In 2007-2009, the average dietary supply adequacy index for the Near East and North Africa region was 130, a drop of one point from the 1990-1992 period. Six countries registered declines: Lebanon, Libya, Iraq, the Islamic Republic of Iran, United Arab Emirates and Yemen. Kuwait had by far the largest increase, moving from 91 to 152.

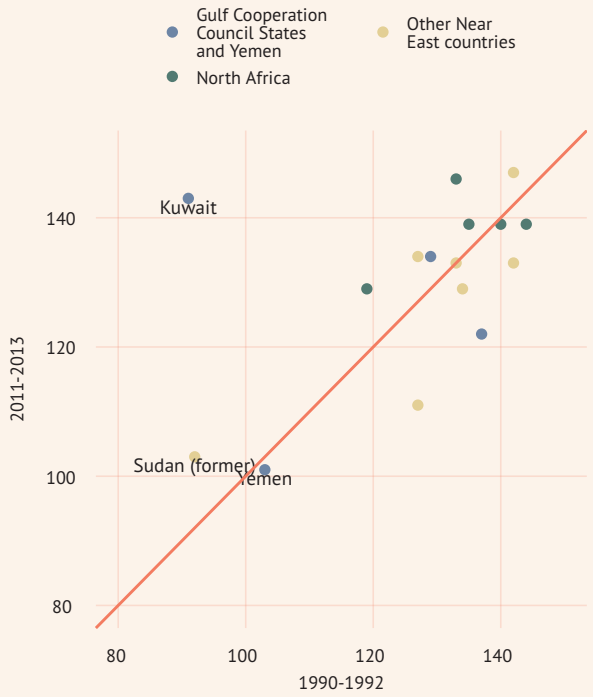
The quality of diets has also improved. This is partly reflected in the decline in the share of dietary energy derived from cereals and roots and tubers in most regions since 1990–92. In the Near East and North Africa region, the percentage of the energy supplied from cereals, roots and tubers has declined from 61 percent to 57 percent. Lebanon, Saudi Arabia and the United Arab Emirates are the only countries in the region where the percentage increased.

Overall, the diets of developing regions have seen a number of improvements over the last two decades. There has been a 20 percent increase in protein availability per person. In the Near East and North Africa region, the average per capita supply of protein in the diet has increased from 74 grams per day to 82 grams per day. Only Libya and Yemen registered declines, both very modest. The average supply of protein of animal origin per capita has also increased in the region, moving form 18 grams a day in 1990-1992 to 24 grams a day in 2007-09. The only two countries in the region where the percentage declined were Iraq and the United Arab Emirates.

Further reading

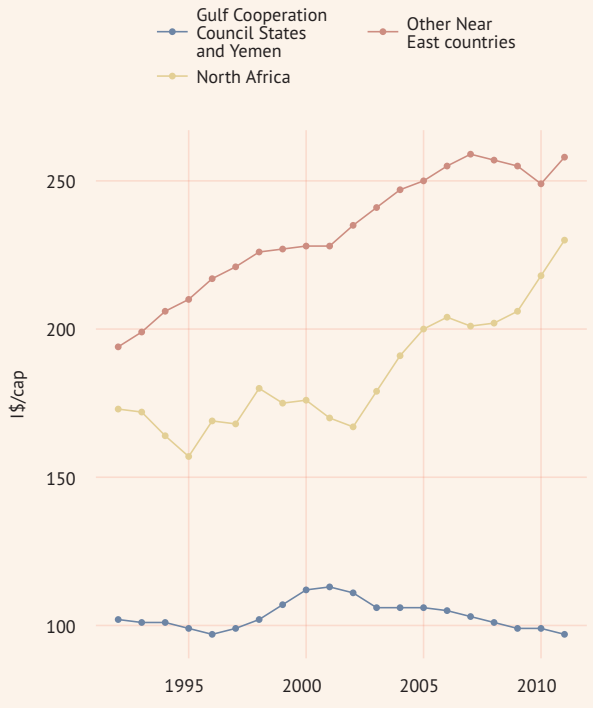
- WHO Nutrition and disorders (www.who.int/topics/nutrition/en/)
- FAO The State of Food Insecurity in the World 2013 - The multiple dimensions of food security (www.fao.org/publications/sofi/en/)

CHART 29: **Average dietary supply adequacy (1990-1992 and 2011-2013)**



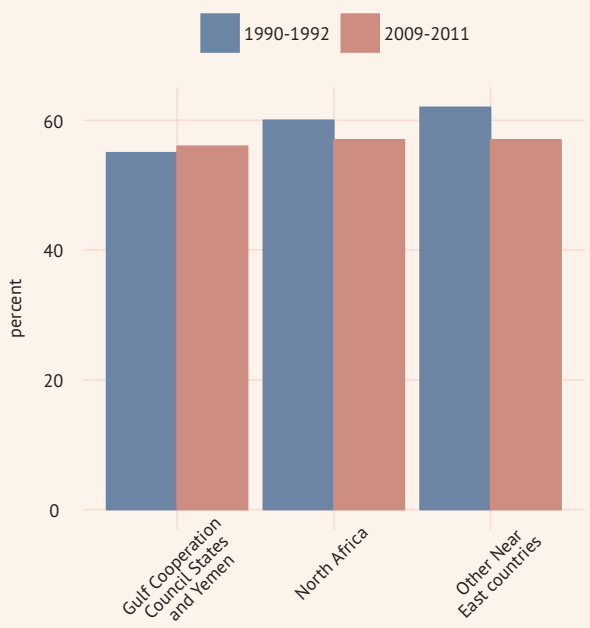
Source: FAO, Statistics Division.

CHART 30: **Trend of the value of food production (1992-2011)**



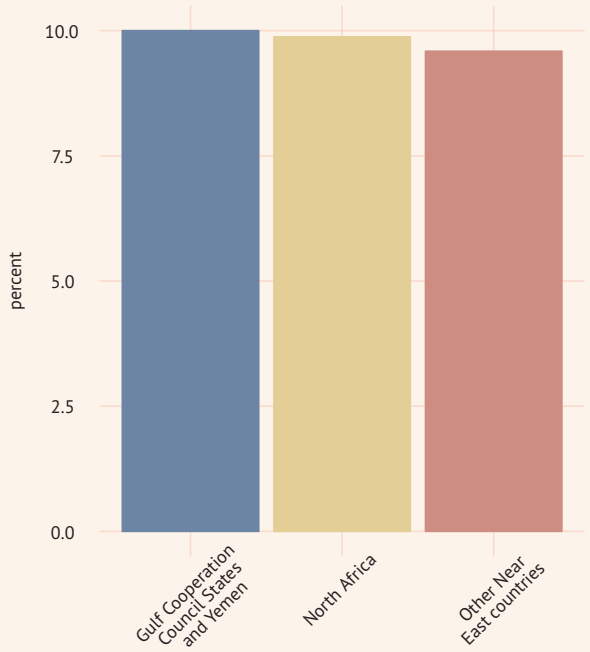
Source: FAO, Statistics Division.

CHART 31: **Share of energy supply derived from cereals, roots and tubers (1990-1992 and 2008-2010)**



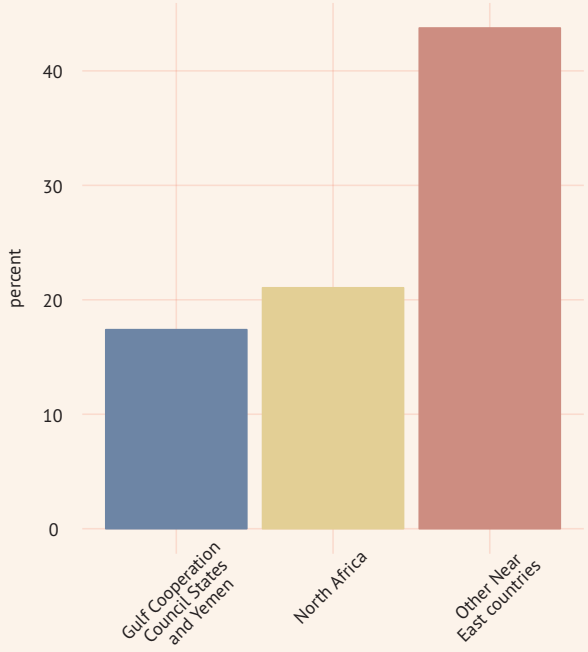
Source: FAO, Statistics Division.

CHART 32: **Relative change in average protein supply (between 1990-1992 and 2008-2010)**



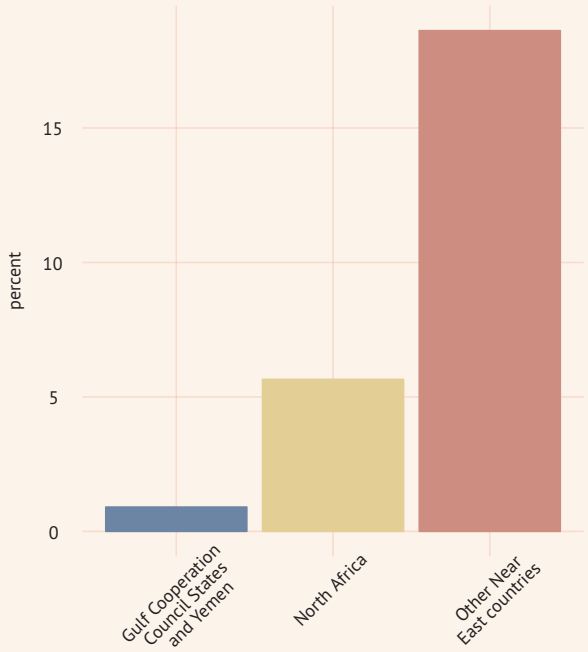
Source: FAO, Statistics Division.

CHART 33: **Relative change in average protein supply from animal origin (between 1990-1992 and 2008-2010)**



Source: FAO, Statistics Division.

CHART 34: **Relative change in average fat supply (between 1990-1992 and 2008-2010)**



Source: FAO, Statistics Division.

Economic and physical access

Access to food is primarily determined by incomes, food prices and the ability of households and individuals to receive social support. In addition, access to food is also greatly influenced by social variables, including gender positioning and power hierarchies within households.

In general, poor households spend a relatively high share of their disposable incomes on food, making them vulnerable to sudden increases in food prices or losses of income. The degree of exposure to real income swings can be captured by the domestic food price index, which is the ratio of the food purchasing power parity to the general purchasing power parity. This indicator captures the importance of food in the overall consumption basket. The index is highest in least developed countries, and showed a pronounced spike during the 2007/2008 rise in food prices. More recently, the index has normalized overall, but is still on a rising trend in developing countries.

Given that a large share of the average household budget is devoted to food consumption, and that the Near East and North Africa region imports about 50 percent of its food needs, recent changes in the international price of grains has had a significant impacts on net food importing countries. At the macro level, high food prices drove inflation and brought about a deterioration of the trade balance, which strained national fiscal balances. The budgetary burden of high food prices is considerable because many countries in the region subsidize food products. The ability to absorb food-price shocks was also hindered by the global financial and economic crisis.

At the micro level, food price shocks increased the number of people living below the poverty line. The groups hardest hit by high food prices are the rural landless and small and marginal food producers. The urban poor are also at risk of becoming poorer as are those who have risen out of poverty in recent years.

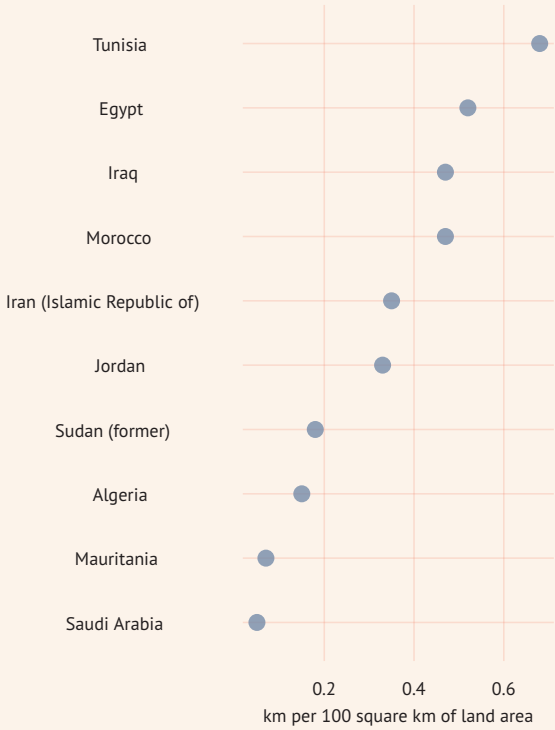
Price hikes were also reported to have had serious consequences on nutrition. To cope with higher food prices, many people reduce their food intake and shift consumption away from healthy foods to cheaper, less nutritious foods. This increases health risks such as malnutrition among the poor. It is estimated that the recent food price shock led to an increase of some 4 million undernourished people in the Arab countries alone.

As well as economic affordability, physical access to food is also facilitated by adequate infrastructure, such as railway lines and paved roads. Information on infrastructure is even sparser than that on prices, but it shows a clear association with food security outcomes in more than one country.

Further reading

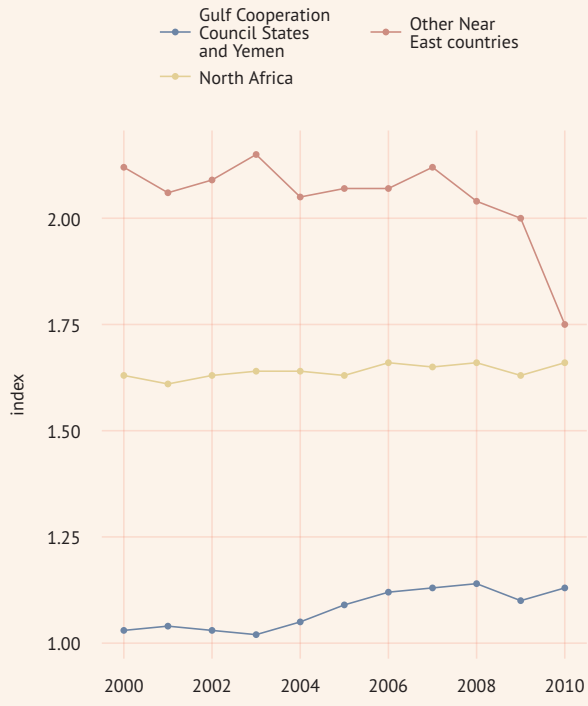
- The Implications of Soaring Food Prices and the Global Financial and Economic Crisis for Agricultural Development and Food and Nutrition Security in the Near East from the 30th Regional Conference (http://www.fao.org/docrep/meeting/020/k9532e.pdf)
- FAO The State of Food Insecurity in the World 2013 - The multiple dimensions of food security (www.fao.org/publications/sofi/en/)

CHART 35: **Rail-lines density (2011)**



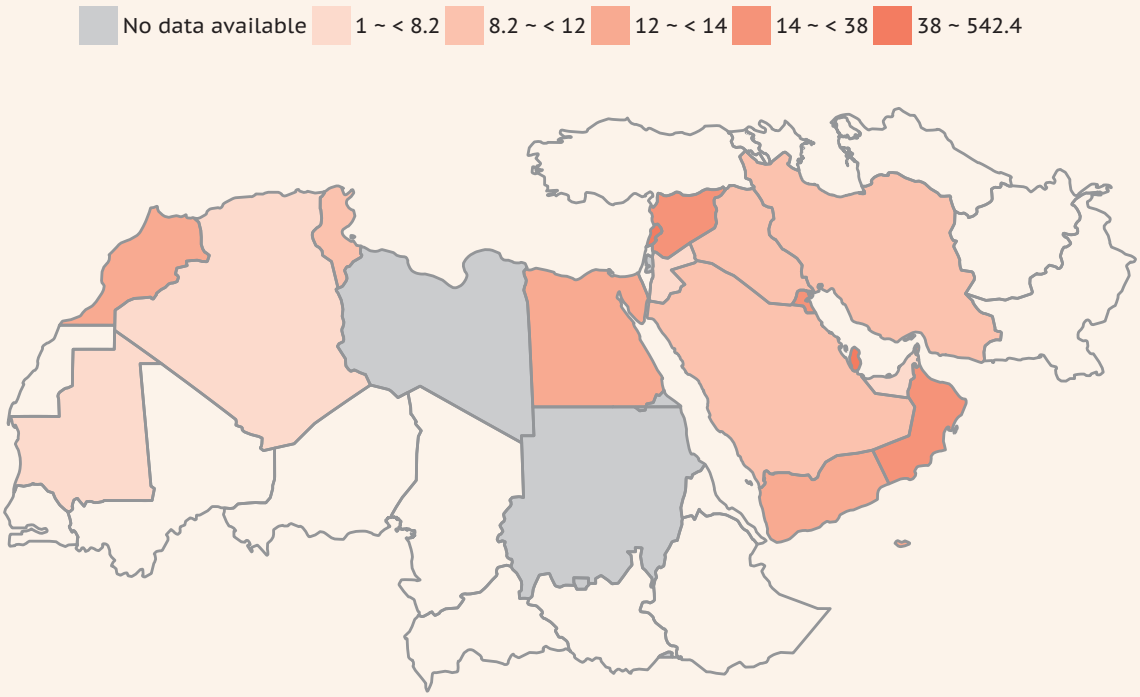
Source: FAO, Statistics Division.

CHART 36: **Relative price of food (2000-2010)**



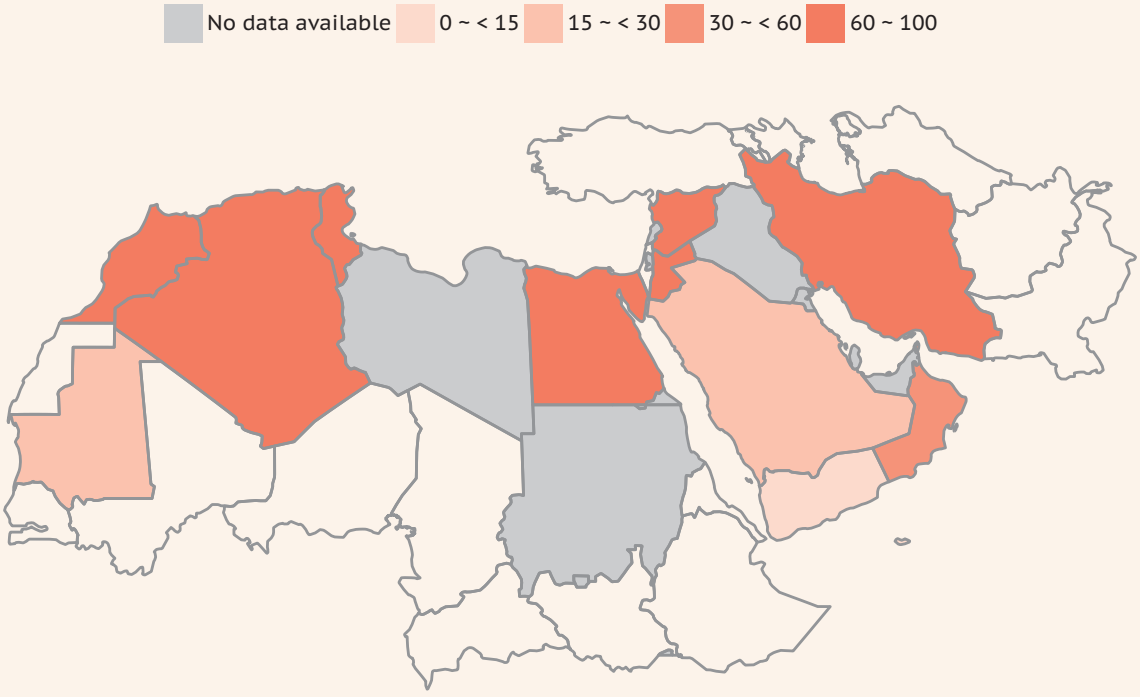
Source: FAO, Statistics Division.

MAP 22: **Road density (km per 100 square km of land area, 2005-2010*)**



Source: FAO, Statistics Division.

MAP 23: **Percent of paved roads over total roads (percent, 2005-2010*)**



Source: FAO, Statistics Division.

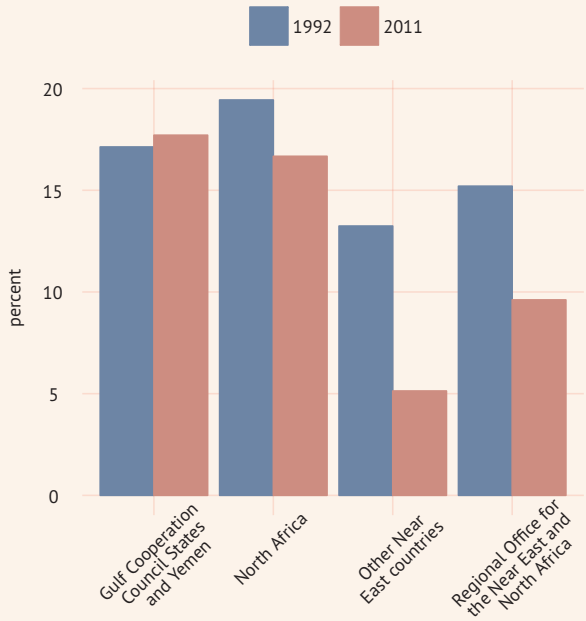
Clean water and sanitation

To absorb nutrients effectively, men, women and children must be in good health. Hygienic food helps keep the body healthy. Access to clean water and sanitation facilities is imperative for the preparation of clean and nutritious food. In addition, it is women and mothers who are often responsible for collecting and storing water. Improving access to safe water and good sanitation can reduce the tremendous amount of time women spend collecting water and improve child health and well-being, both of which can have a positive effect on the ability to utilize food.

One of the MDGs is to reduce by half by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. The safe drinking water target has already been reached at the global level, yet progress varies around the world. In the Near East and North Africa, 90 percent of the population has access to safe water. Yet Mauritania has the highest percentage of the population without access to clean water in the region (50 percent), followed by Yemen (45 percent each).

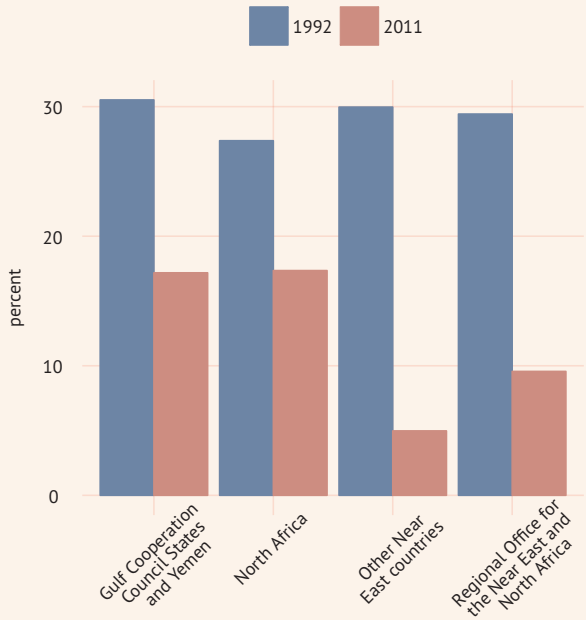
The MDG sanitation target has not yet been reached at the global level, and given the current trend, it is unlikely to be achieved by 2015. However, substantial progress has been recorded over the last two decades, with access to improved sanitation in poorer countries increasing from 36 to 56 percent of the population. In the Near East and North Africa, 83 percent of the population has access to improved sanitation. In Mauritania, however, the problem is widespread, with more than 70 percent of the population living without access. In Yemen, just under half of the population lack improved sanitation facilities.

CHART 37: **Percentage of population without reasonable access to improved water sources (1992 and 2011)**



Source: FAO, Statistics Division.

CHART 38: **Percentage of population without reasonable access to improved sanitation facilities (1992 and 2011)**

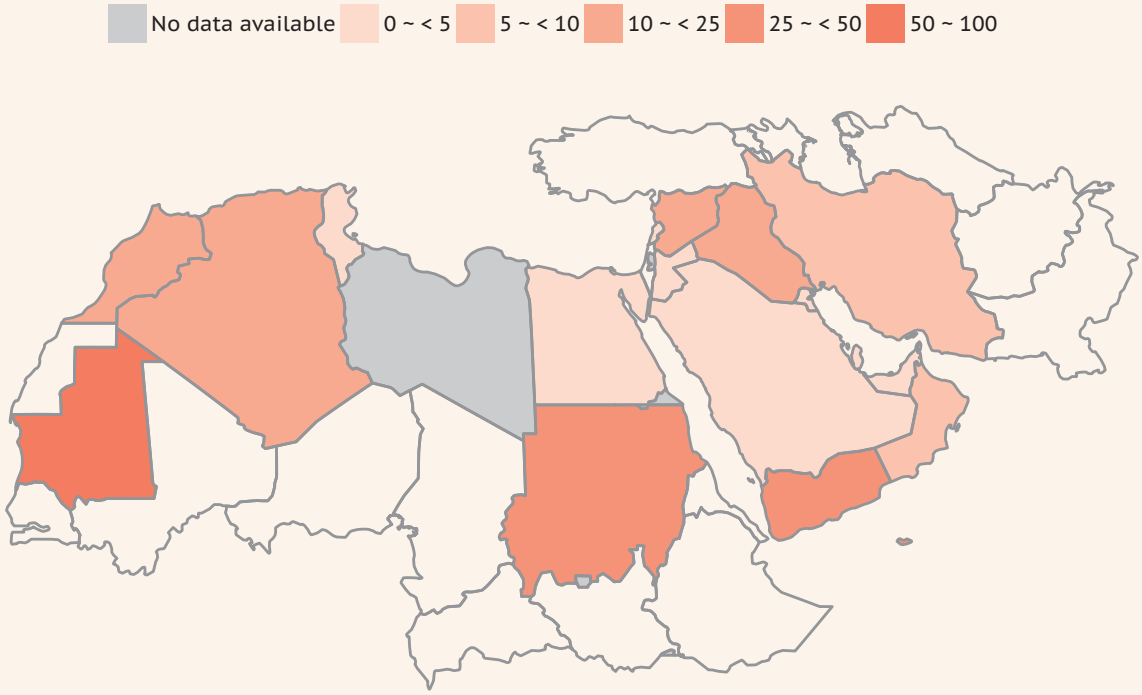


Source: FAO, Statistics Division.

Further reading

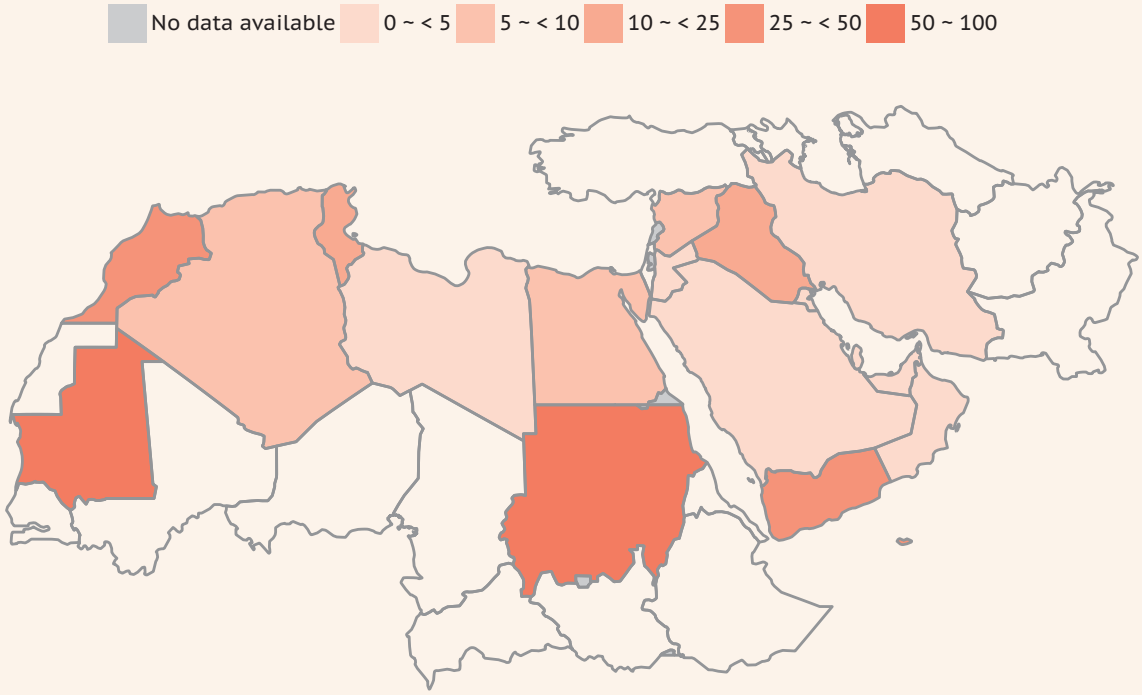
- UNICEF Water, Sanitation and Hygiene (www.unicef.org/wash/)

MAP 24: **Share of population without reasonable access to improved water sources (percent, 2011)**



Source: FAO, Statistics Division.

MAP 25: **Share of population without reasonable access to improved sanitation facilities (percent, 2011)**



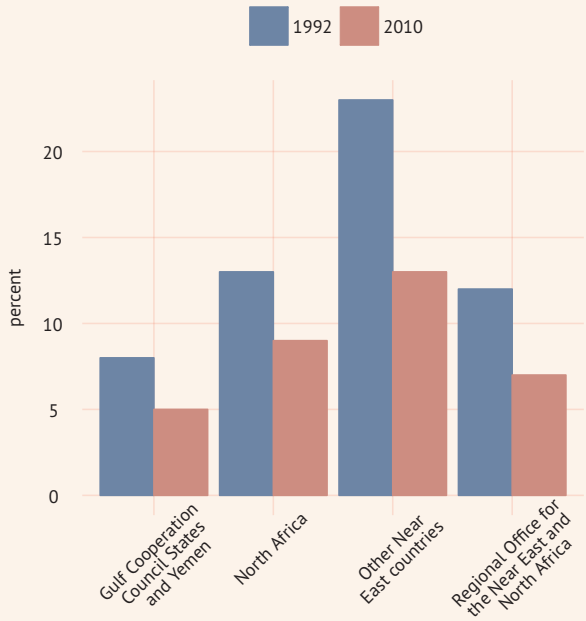
Source: FAO, Statistics Division.

Economic and political stability

Since the mid-2000s, food and agricultural markets have entered an unexpectedly turbulent phase, characterized by large supply shortfalls, price swings and increased uncertainty about the world's ability to feed itself. These uncertainties have had direct and adverse impacts on food security. On the demand side, high and volatile prices have meant not only that consumers have had to adjust their current food intake, but also that they have been forced to prepare for higher volatility in the future, hence saving more.

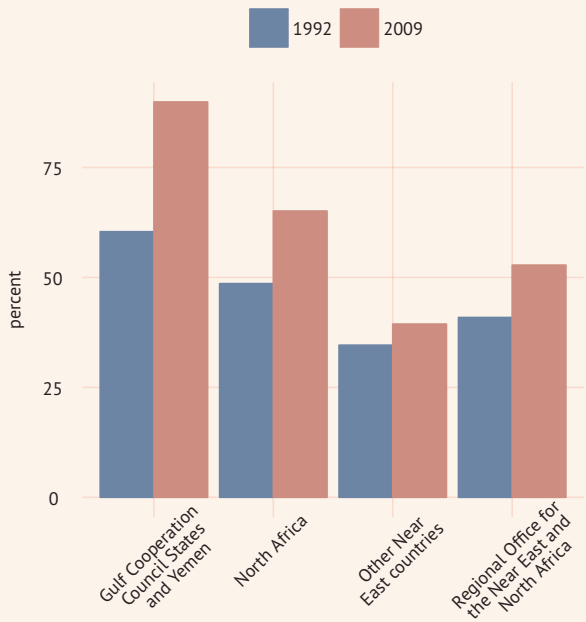
At the country level, the outcome of the recent instability has been affected by local conditions and the degree of integration into world markets. High food prices and high volatility have caused considerable concerns in many countries with particular exposure to world markets. A country's vulnerability to price changes on world markets also depends on its ability to generate foreign exchange through exports. For this reason, a relevant indicator of food security at the national level is the value share of staple food imports relative to the value of merchandise exports.

CHART 39: **Value of food imports over total merchandise exports (1992 and 2010)**



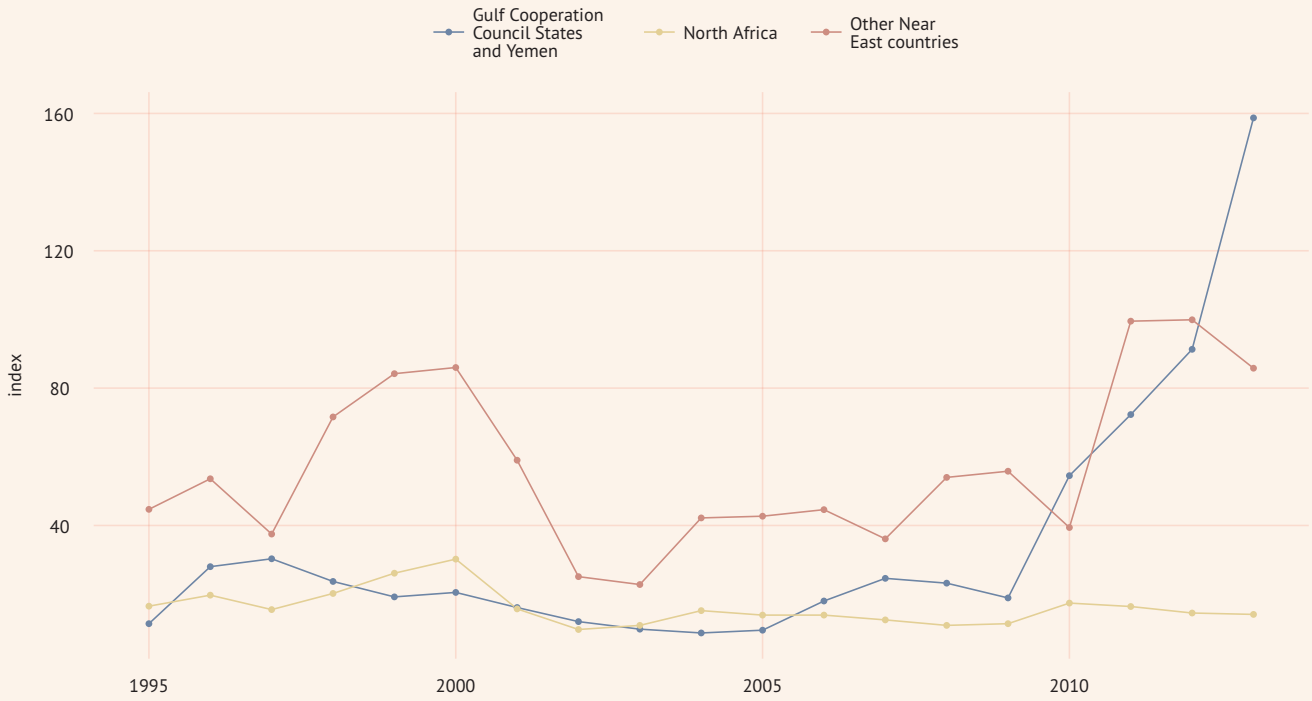
Source: FAO, Statistics Division.

CHART 40: **Cereal import dependency ratio (1992 and 2009)**



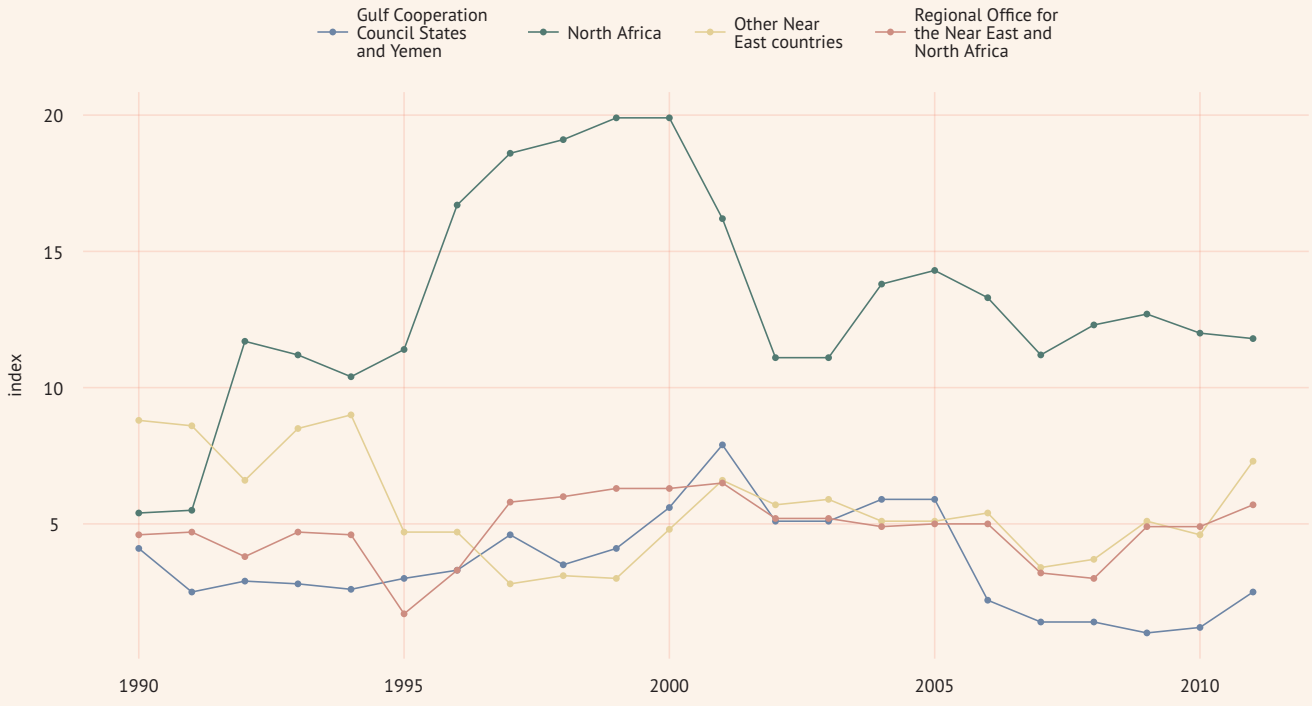
Source: FAO, Statistics Division.

CHART 41: **Domestic food price volatility (1995-2013)**



Source: FAO, Statistics Division.

CHART 42: **Per capita food production variability (1990-2011)**



Source: FAO, Statistics Division.

In the Near East, the value share of staple food imports relative to the value of merchandise exports has fallen from 13 percent in 1990-92 to seven percent during 2008-10. Lebanon and Yemen, where the value of food imports over total merchandise exports was well over 100 percent in 1990-92, have seen the greatest decline in this area. During this period, only Morocco and the Syrian Arab Republic have seen an increase in this percentage.

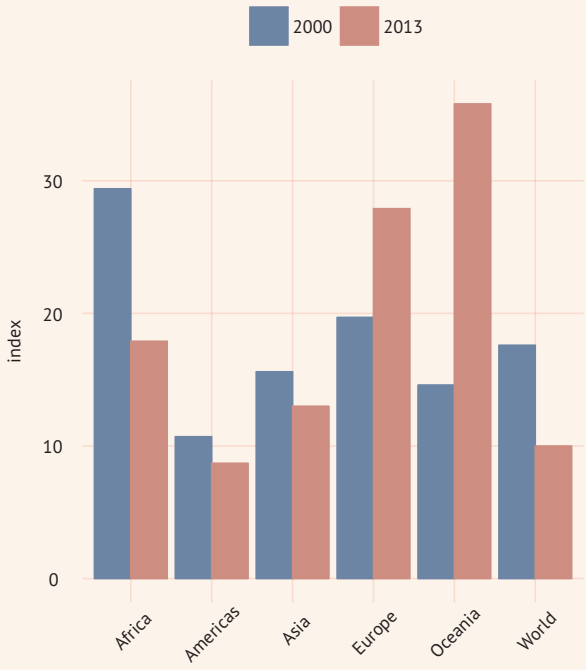
The Near East and North Africa region is heavily dependent on food imports, with some countries leading the world in terms of food import dependency. In 2007-09, the GCC countries relied on imports to meet 90 percent of their cereal needs. Kuwait and the United Arab Emirates depend entirely on imports for their cereal supply, as does Lebanon. The Islamic Republic of Iran has the lowest cereal import dependency ratio, with only 33 percent of its cereal needs being met through imports. In almost all countries the dependency on cereal imports has increased. Only Egypt, which had the second lowest ratio (36 percent), and Lebanon have registered minor declines in this area since the 1990-92 period. Forecasting models predict that the demand for food (especially in the Arab countries) will grow at a faster rate than production, leading to an even greater dependence on world grain markets.

In some countries, a high prevalence of undernourishment has been associated with relatively low variability in supply in recent years. Political stability and the absence of civil strife and violence are other key determinants of food security. The basic rationale behind this relationship is straightforward and reflects the functioning of the overall economy, people's ability to generate income and governments' capacity to support the poor. Women and children are normally more vulnerable to political and economic instability.

Further reading

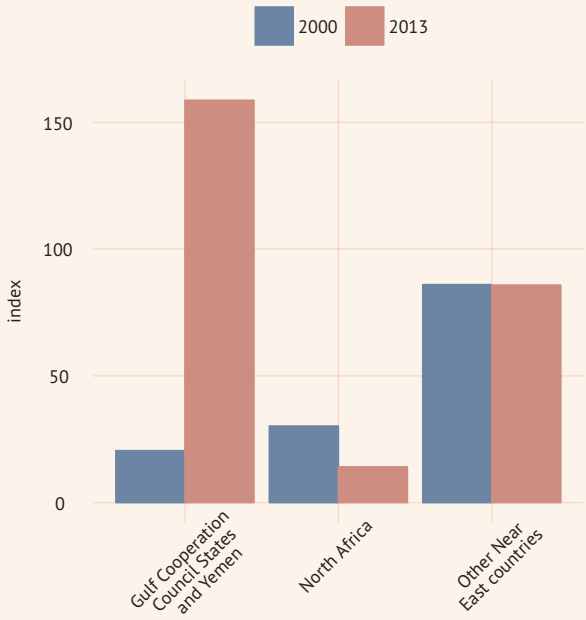
- FAO The State of Food Insecurity in the World 2012 - Economic Growth Is Necessary but Not Sufficient to Accelerate Reduction of Hunger and Malnutrition (www.fao.org/publications/sofi/en/)
- Global Information and Early Warning System (www.fao.org/giews/english/index.htm)
- Prakash (2011) (www.fao.org/economic/est/issues/volatility/vgm/en/)

CHART 43: **Domestic food price volatility (2000 and 2013)**



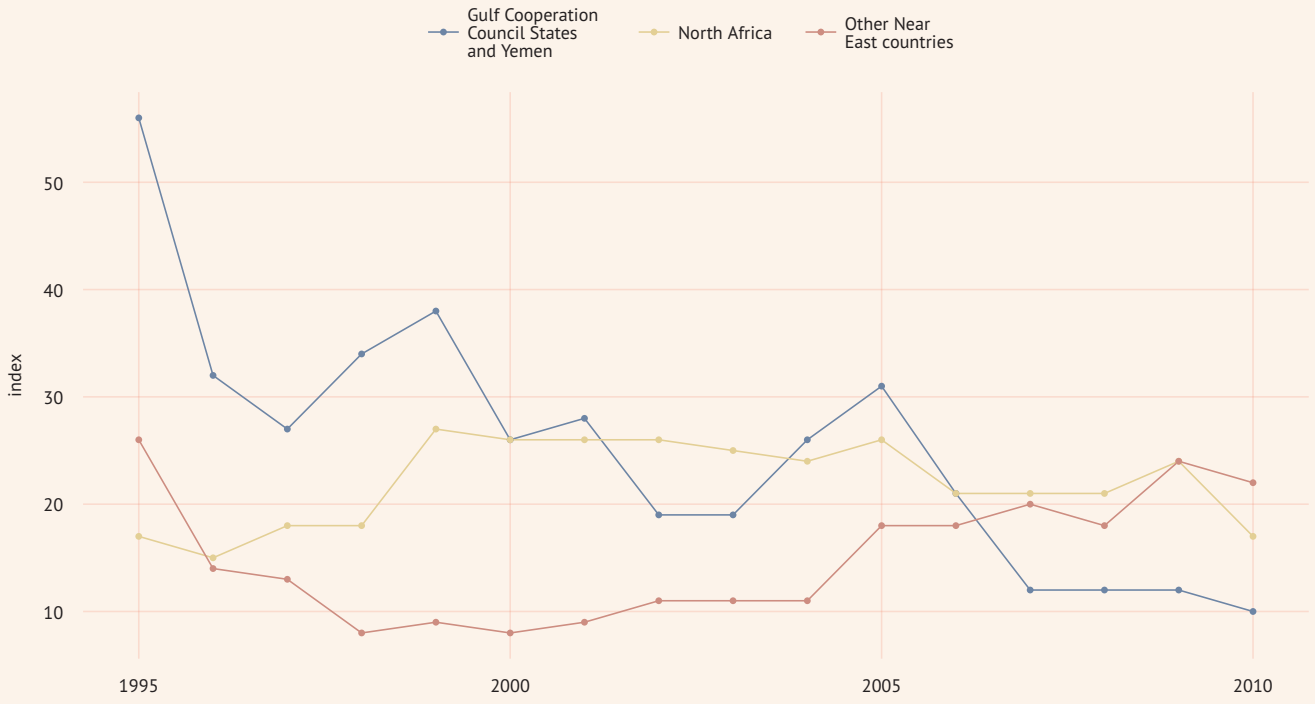
Source: FAO, Statistics Division.

CHART 44: **Domestic food price volatility (2000 and 2013)**



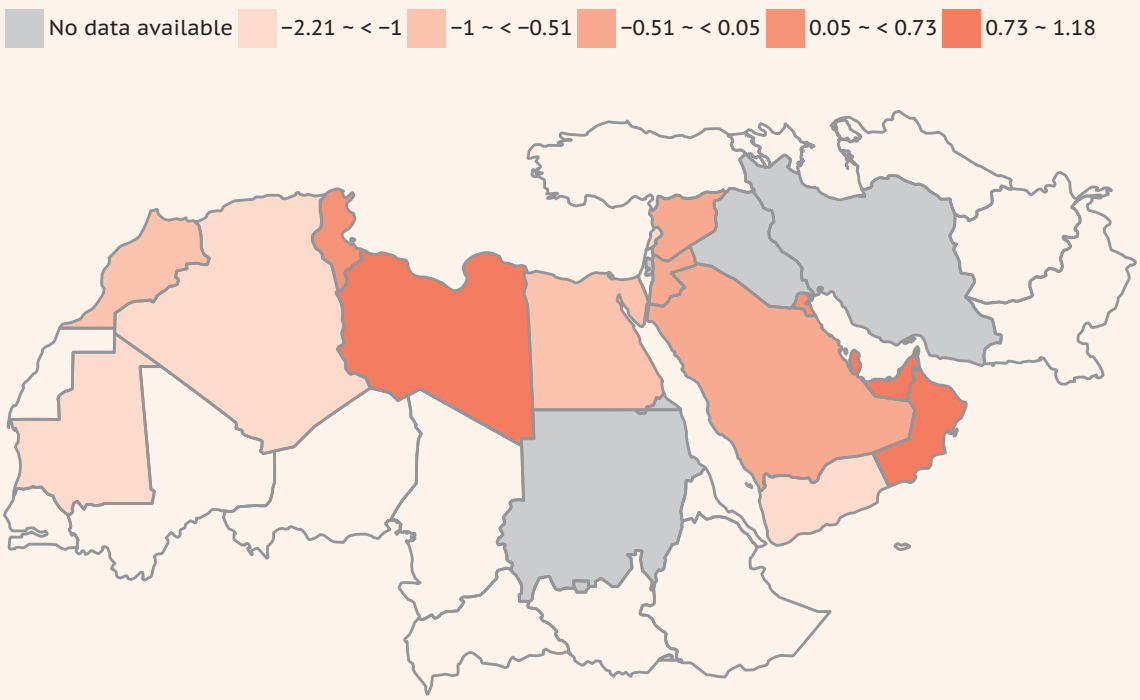
Source: FAO, Statistics Division.

CHART 45: **Per capita food supply variability (1995-2010)**



Source: FAO, Statistics Division.

MAP 26: **Political stability and absence of violence/terrorism (index, 2009)**



Source: FAO, Statistics Division.

Education and health

Investments will need to be made in education, especially in rural areas, if chronic hunger and poverty are to be put to an end. Education, particularly for women, has proven to be an effective means of reducing child malnutrition and infant mortality. There is a positive correlation between female literacy and better living conditions for women and their children. Better education, along with knowledge on improved child feeding practices, food preservation and better sanitation, can have a profound impact on improving food security.

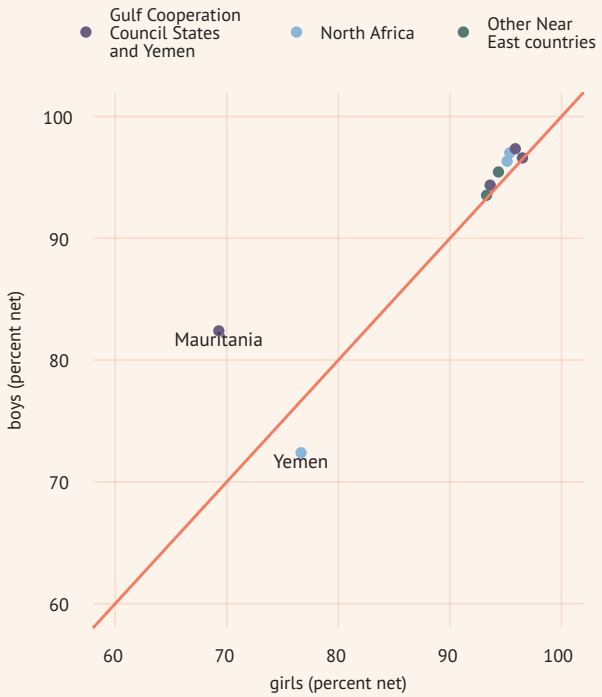
Between 2002 and 2010, only four countries in the Near East and North Africa, all of them in GCC countries, the percentage of women over 15 that are literate is over 90 percent. In general, female literacy has a close relationship with undernourishment. For example, Mauritania and Yemen, the countries with the highest prevalence of undernourished people, show two of the lowest levels of female literacy. However, Morocco, which has a relatively low prevalence of undernourishment, has the lowest percentage of female literacy in the region (44 percent).

Health care systems are mostly financed from a mix of government resources, the private sector, non-governmental organizations (NGOs) and foreign assistance. The distribution of expenditure on health care across countries is vastly uneven, as are the amounts of resources employed. The International Labour Organization (ILO) found that only one in five people in the world had broad-based social security protection against illness, while more than half the world's population lacked social protection.In 2010, an average of 10 percent of global GDP was spent on health care. In the Near East and North Africa, 4.6 percent of the GDP was spent on health care, up from 3.8 percent in 1995. Iraq had the highest share of GDP expenditures on health (8.5 percent), followed closely by Jordan (8.3 percent).

Further reading

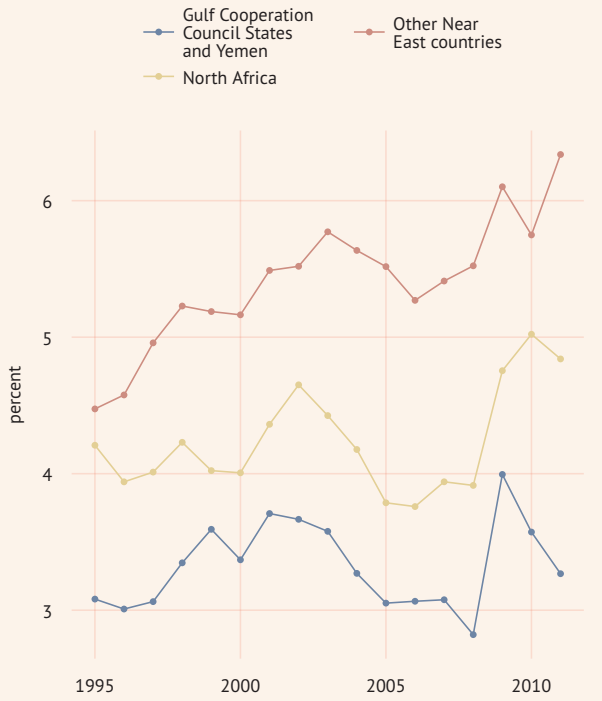
- UNESCO education (www.unesco.org/new/en/education/)
- UNDP Human Development Report 2010 - The Real Wealth of Nations: Pathways to Human Development (hdr.undp.org/en/reports/global/hdr2010/)
- O'Donovan (2008)

CHART 46: **Girls' and boys' enrolment in primary education (2011)**



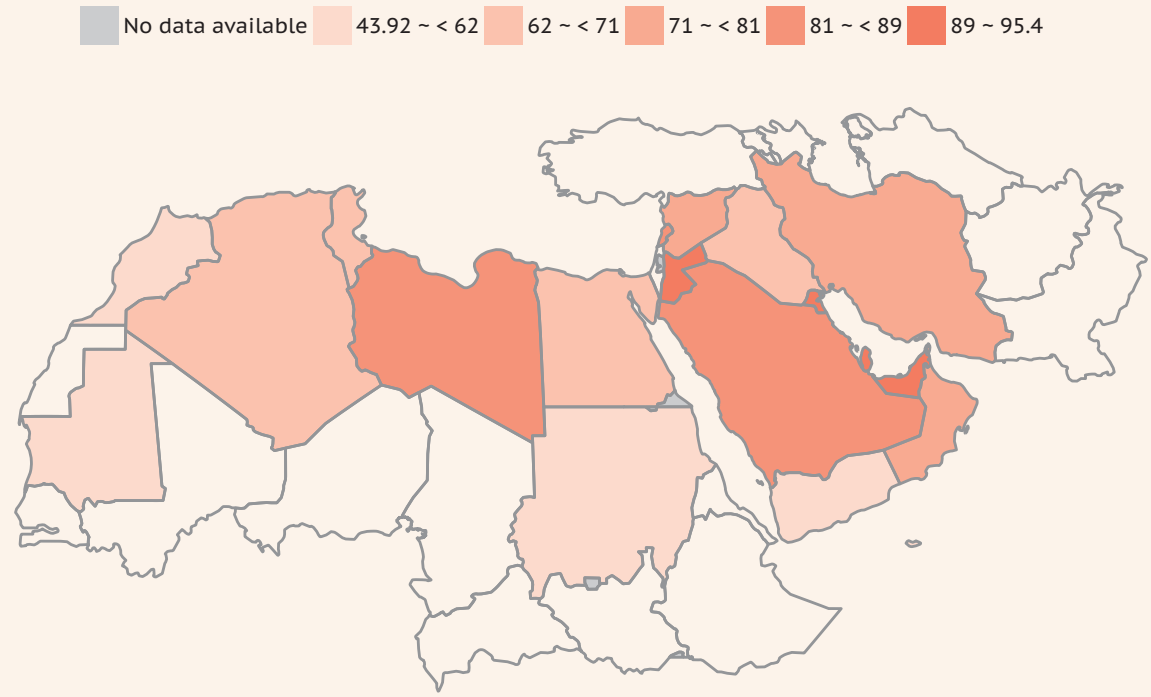
Source: World Bank (WDI).

CHART 47: **Total health expenditure, share of GDP (1995-2011)**



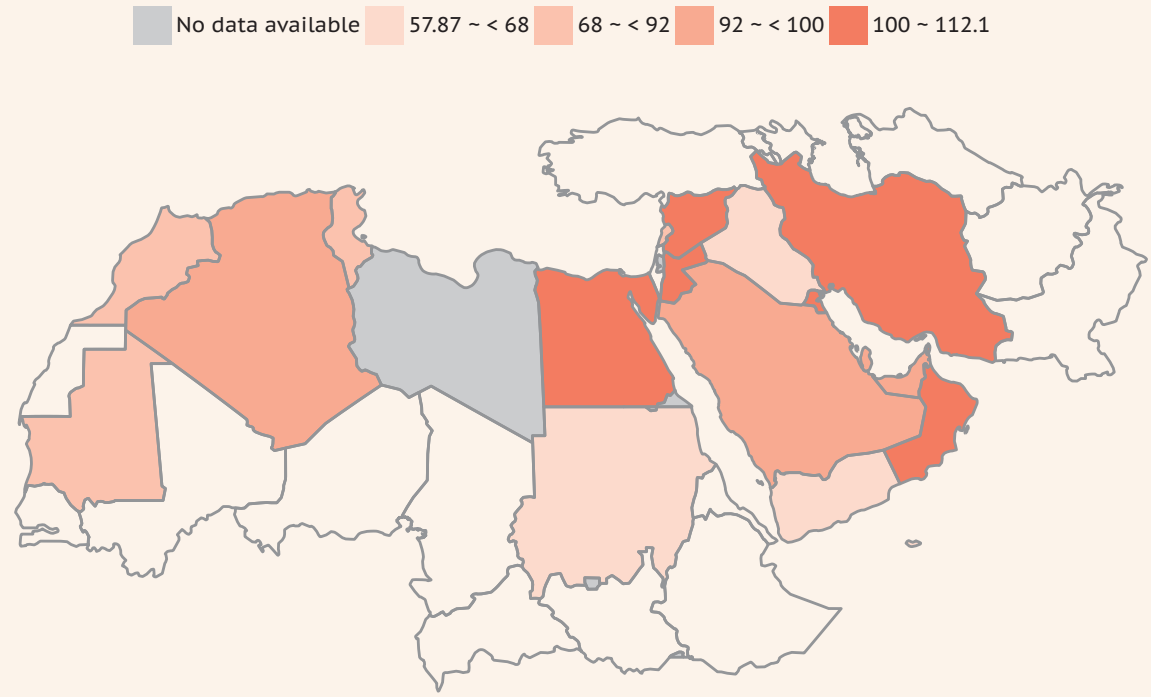
Source: World Bank (WDI).

MAP 27: **Literacy rate, adult female - share of females ages 15 and above (percent, 2005-2010*)**



Source: World Bank (WDI).

MAP 28: **Primary completion rate, total (percent, 2005-2010*)**



Source: World Bank (WDI).

Natural and human-made risks

Armed conflict and natural disasters often put food security at risk, especially in countries and areas where poverty is high, institutions are fragile and rural livelihoods are founded on unsustainable natural resource management practices. Two groups of indicators are considered here: those from the Office of the United Nations High Commissioner for Refugees (UNHCR), reflecting political and military conditions; and those from the Centre for Research on the Epidemiology of Disasters (CRED), reporting on natural disasters such as droughts, floods and extreme temperatures.

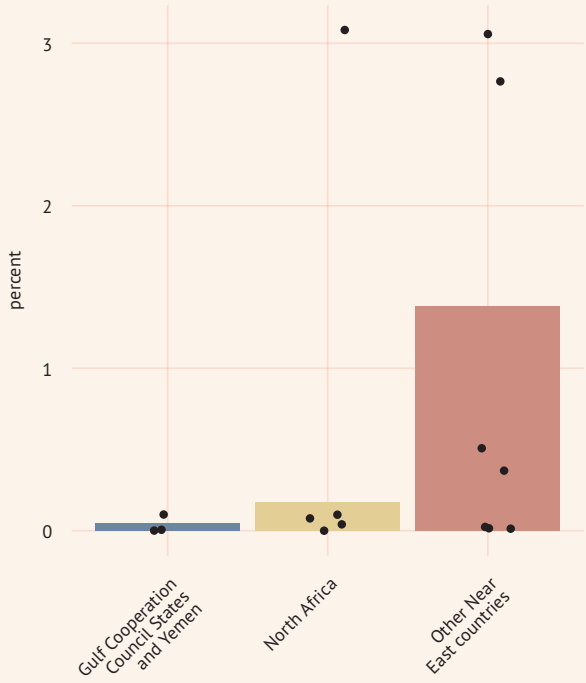
In the *2010 State of Food Insecurity in the World* report, 22 countries were identified as undergoing a state of protracted crisis. Two of these are in the Near East and North Africa: Iraq and Sudan. In 2011, Iraq had the largest number of internally displaced persons over 1.3 million. Yemen was the only other country in the region with significant number of internally displaced persons (347 000). The impact of these crises in these countries is evident in the high level of undernourishment.

As the climate changes, the Near East and North Africa region has witnessed varying degree of extreme events such as droughts, floods, and sand and snowstorms, which have had an impact on rural livelihoods and food security. For example, in north-eastern Syria, herders lost almost 85 percent of their livestock due to repeated droughts since 2005. Climate change is also predicted to increase the risk of wildfires in the region.

Further reading

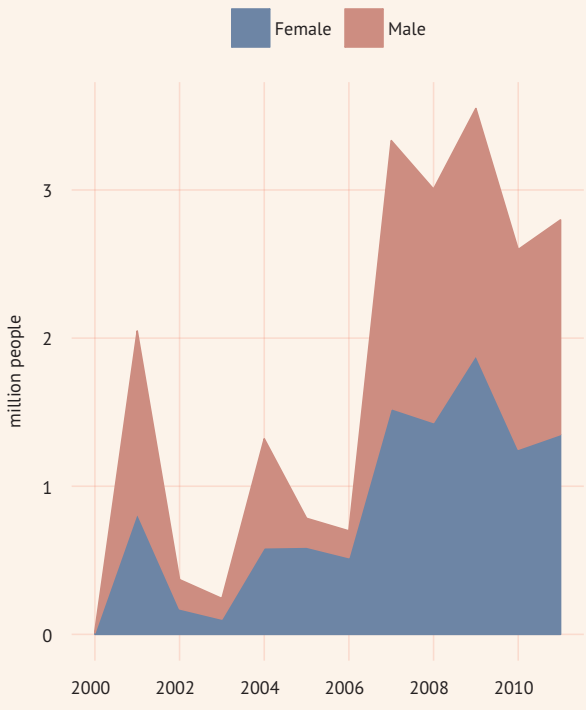
- FAO Regional Conference For The Near East, 31st session: Actions to Adapt to and Mitigate Climate Change Impacts on Natural Resources: the Case of Fisheries and Aquaculture, Forestry, and Livestock in the Near East (http://www.fao.org/docrep/meeting/025/md462E.pdf)
- Centre for Research on the Epidemiology of Disasters (www.cred.be/)
- United Nations High Commissioner for Refugees (www.unhcr.org)
- Internal Displacement Monitoring Centre (www.internal-displacement.org/)

CHART 48: **Droughts, floods, extreme temperatures - share of population affected (2009)**



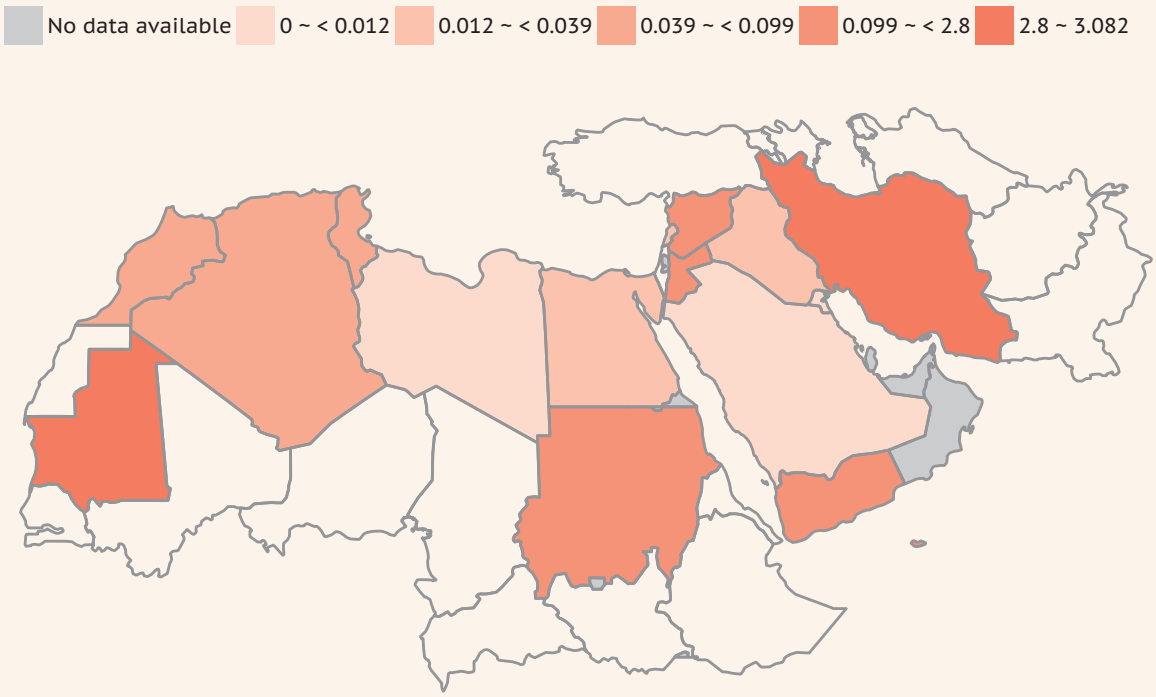
Source: World Bank (WDI).

CHART 49: **Refugees in Near East and North Africa region (2000-2011)**



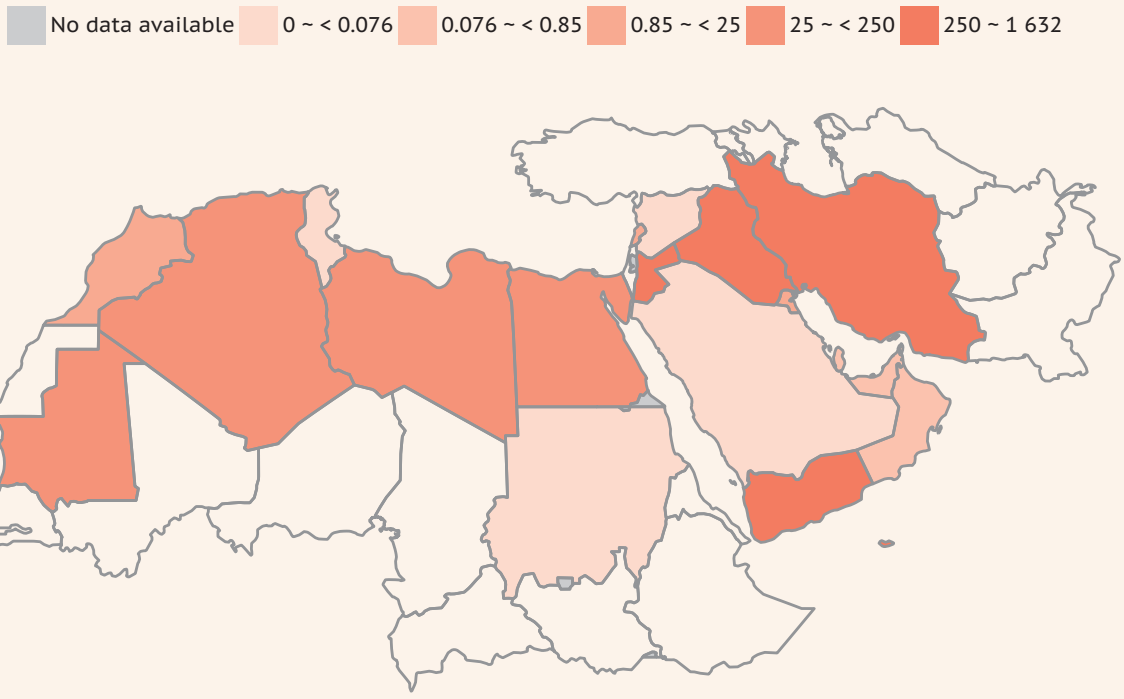
Source: Statistical Online Population Database .

MAP 29: **Droughts, floods, extreme temperatures - share of population affected (average 1990-2009) (percent, 2009)**



Source: World Bank (WDI).

MAP 30: **UNHCR total population of concern (thousand people, 2011)**



Source: Statistical Online Population Database .

TABLE 12: **Outcomes: Inadequate access to food**

	Inadequate access to food							
	prevalence of		number of		% of food expenditure of the poor	depth of the food deficit		prevalence of food inadequacy	
	undernourishment		undernourished						
	percent	percent	million people	million people	percent	kcal/cap/day	kcal/cap/day	percent	percent
	1990-92	2011-13	1990-92	2011-13	2000-12*	1990-92	2011-13	1990-92	2011-13
Regional office for the Near East and North Africa	9.0	10.0	25.8	43.7		59	78	13.5	14.6
Gulf Cooperation Council States and Yemen	14.9	12.5	4.9	8.1		92	82	20.6	18.2
Bahrain									
Kuwait	39.3	< 5	0.8	*ns*		295	11	51.9	< 5
Oman									
Qatar									
Saudi Arabia	< 5	< 5	*ns*	*ns*		18	12	6.4	< 5
United Arab Emirates	< 5	< 5	*ns*	*ns*		7	25	< 5	9.0
Yemen	29.2	28.8	3.7	7.4		171	188	37.2	38.1
North Africa	5.2	3.2	3.4	2.9		30	20	8.7	6.3
Algeria	5.5	< 5	1.4	*ns*		31	15	9.2	< 5
Libya	< 5	< 5	*ns*	*ns*		5	8	< 5	< 5
Mauritania	12.9	7.8	0.3	0.3		76	46	18.9	12.5
Morocco	6.7	5.0	1.7	*ns*		38	31	10.7	9.0
Tunisia	< 5	< 5	*ns*	*ns*	41.0	5	6	< 5	< 5
Other Near East Countries	9.6	11.9	17.1	32.3		63	96	13.8	16.4
Egypt	< 5	< 5	*ns*	*ns*		13	8	5.5	< 5
Iran (Islamic Republic of)	< 5	< 5	*ns*	*ns*		18	29	5.6	8.7
Iraq	10.0	26.2	1.8	8.8	49.0	56	217	15.0	33.1
Jordan	6.1	< 5	0.2	*ns*		35	20	10.2	6.4
Lebanon	< 5	< 5	*ns*	*ns*		22	20	6.9	6.5
Sudan									
Sudan (former)	41.9	38.9	11.4	17.8	72.0	294	328	51.8	45.3
Syrian Arab Republic	< 5	6.0	*ns*	1.3		26	38	7.8	10.4
Regional Office for Africa	32.8	24.8	173.1	222.7		241	189	41.1	31.2
Regional Office for Asia and the Pacific	20.9	11.8	735.0	528.7		157	88	31.7	20.5
Regional Office for Europe and Central Asia	8.2	< 5	10.0	*ns*		19	12	5.9	3.9
Regional Office for Latin America and the Caribbean	14.7	7.9	65.6	47.0		97	56	21.8	14.1
World	18.9	12.0	1 015.3	842.3		128	83	26.2	18.4

TABLE 13: **Utilization**

	Outcomes						
	children under 5 years of age						adults
	underweight		stunted		wasted		
	percent 1990-95*	percent 2005-11*	percent 1990-95*	percent 2005-11*	percent 1990-95*	percent 2005-11*	underweight percent 1990-2011*
Regional office for the Near East and North Africa							
Gulf Cooperation Council States and Yemen							
Bahrain	7.6		14		6.6		
Kuwait	9.2	1.7	15	4	12.0	1.8	2.5
Oman	10.0	8.6	21	10	7.0	7.1	
Qatar	4.8		12		2.1		
Saudi Arabia	13.5	5.3	21	9	2.9	11.8	7.0
United Arab Emirates							
Yemen	29.6		52		14.3		
North Africa							
Algeria	11.3	3.7	22	16	9.6	4.0	
Libya	4.3	5.6	21	21	3.7	6.5	
Mauritania	43.3	15.9	55	23	17.4	8.1	
Morocco	8.1	3.1	30	15	2.6	2.3	5.3
Tunisia	8.1	3.3	31	9	4.5	3.4	
Other Near East Countries							
Egypt	10.8	6.8	35	31	5.7	7.9	
Iran (Islamic Republic of)	13.8		24		8.1		5.9
Iraq	10.4	7.1	28	28	4.4	5.8	
Jordan	4.8	1.9	20	8	3.8	1.6	3.0
Lebanon		5.2		27		5.2	
Sudan							
Sudan (former)	31.8	31.7	39	38	18.8	21.0	
Syrian Arab Republic	11.3	10.1	26	28	10.4	11.5	
Regional Office for Africa							
Regional Office for Asia and the Pacific							
Regional Office for Europe and Central Asia							
Regional Office for Latin America and the Caribbean							
World							

TABLE 14: **Poverty**

	Headcount ratio in $ per day (PPP)		Gap in $ per day (PPP)		Gap at national poverty line	Gap at rural poverty line	GINI coefficient	Income share held by highest 20%	Income share held by lowest 20%
	1.25 percent 2005-12*	2 percent 2005-12*	1.25 percent 2005-12*	2 percent 2005-12*	percent 2005-12*	percent 2005-12*	index 2005-12*	percent 2005-12*	percent 2005-12*
Regional office for the Near East and North Africa									
Gulf Cooperation Council States and Yemen									
Bahrain									
Kuwait									
Oman									
Qatar							41	52	3.9
Saudi Arabia									
United Arab Emirates									
Yemen	17.5	46.6	4.2	14.8	8.9	10.6	38	45	7.2
North Africa									
Algeria									
Libya									
Mauritania	23.4	47.7	6.8	17.7	14.5	22.3	40	47	6.0
Morocco	2.5	14.0	0.5	3.2			41	48	6.5
Tunisia	1.1	4.2	0.4	1.1			36	43	6.7
Other Near East Countries									
Egypt	1.7	15.4	0.4	2.8	3.6		31	40	9.2
Iran (Islamic Republic of)	1.4	8.0	0.3	1.8			38	45	6.4
Iraq	2.8	21.4	0.4	4.4	4.5	9.0	31	40	8.7
Jordan	0.1	1.6	0.0	0.2	2.6		35	44	7.7
Lebanon									
Sudan					16.2	21.3	35		
Sudan (former)	19.8	44.1	5.5	15.4				42	6.8
Syrian Arab Republic									
Regional Office for Africa									
Regional Office for Asia and the Pacific									
Regional Office for Europe and Central Asia									
Regional Office for Latin America and the Caribbean									
World									

TABLE 15: **Determinants: Availability**

	Availability: average dietary supply adequacy		value of food production per capita		share of energy supply derived from cereals, roots and tubers		average supply of protein		average supply of protein of animal origin	
	percent 1990-92	percent 2011-13	I$/cap 1990-92	I$/cap 2009-11	percent 1990-92	percent 2008-10	g/cap/day 1990-92	g/cap/day 2008-10	g/cap/day 1990-92	g/cap/day 2008-10
Regional office for the Near East and North Africa	131	130	177	226	61	57	74	82	18	24
Gulf Cooperation Council States and Yemen	117	120	102	97	55	56	70	77	23	27
Bahrain			41	23						
Kuwait	91	143	22	87	48	43	60	115	27	61
Oman			93	137						
Qatar			66	29						
Saudi Arabia	129	134	144	128	49	54	79	85	29	31
United Arab Emirates	137	122	130	102	34	43	105	104	55	49
Yemen	103	101	58	73	67	62	55	55	10	12
North Africa	135	141	173	230	60	57	81	89	19	23
Algeria	133	146	117	183	59	58	77	89	19	23
Libya	144	139	172	175	49	52	81	80	27	27
Mauritania	119	129	163	138	55	49	79	85	33	36
Morocco	135	139	188	265	64	60	84	89	15	21
Tunisia	140	139	302	332	56	53	85	95	19	26
Other Near East Countries	132	129	194	258	62	57	73	80	16	23
Egypt	142	147	177	259	68	67	84	97	13	21
Iran (Islamic Republic of)	142	133	230	332	62	55	82	89	18	26
Iraq	127	111	121	76	67	60			9	8
Jordan	127	134	163	197	51	47	73	80	22	29
Lebanon	133	133	375	269	37	39	77	85	24	36
Sudan										
Sudan (former)	92	103	156	261	58	48	62	75	21	30
Syrian Arab Republic	134	129	259	297	51	47	73	84	19	24
Regional Office for Africa	100	111	152	160	62	64	52	59	12	13
Regional Office for Asia and the Pacific	107	117	175	259	63	57	59	75	15	26
Regional Office for Europe and Central Asia	132	135	431	419	29	38	79	101	42	53
Regional Office for Latin America and the Caribbean	117	127	315	457	43	40	68	82	30	41
World	114	122	240	302	56	51	69	79	24	31

TABLE 16: **Determinants: Physical and economic access**

	Access										
	physical access						economic access			lack of access to	
	% of paved roads		rail-lines density		road density		food price level index			water	sanitation
	percent	percent	km per 100 square km of land area	km per 100 square km of land area	km per 100 square km of land area	km per 100 square km of land area	index	index	index	percent	percent
	1990	2005-10*	1990	2005-11*	1990	2005-10*	2000	2005	2013	2011	2011
Regional office for the Near East and North Africa	54				5		1.6	1.6		10	10
Gulf Cooperation Council States and Yemen	35	25			8	11	1.0	1.1		18	17
Bahrain	75	82			384	542	1.1	1.0	1.2	0	1
Kuwait	73				22	37	0.8	0.9	0.9	1	0
Oman	21	46			8	18	1.0	1.1	1.1	8	3
Qatar	86					85	0.9	0.8	0.8	0	0
Saudi Arabia	41	22	0.0	0.0	6	10	1.0	1.1		3	0
United Arab Emirates	94				5	5				0	2
Yemen	9	9			10	14	1.3	1.5	1.6	45	47
North Africa	58	68			4		1.6	1.6		17	17
Algeria	67	77	0.2	0.1	4	5				16	5
Libya	52				4						3
Mauritania		30		0.1	1	1	2.0	2.1		50	73
Morocco	49	70	0.4	0.5	13	13	1.6	1.6	1.6	18	30
Tunisia	76	76	1.4	0.7	12	12	1.7	1.7	1.8	4	10
Other Near East Countries		85			5		2.1	2.1		5	5
Egypt	72	92	0.5	0.5		14	2.0	1.8	2.0	1	5
Iran (Islamic Republic of)		81	0.3	0.3	8	11	2.5	2.4		5	0
Iraq	78			0.5	10	10	1.5	1.5	1.6	15	16
Jordan	100	100	0.3	0.3	8	8	1.2	1.2	1.3	4	2
Lebanon	95				61	67				0	
Sudan										2	10
Sudan (former)	34		0.2	0.2	0					45	76
Syrian Arab Republic		90	1.3	1.2	18	38	1.4	1.4		10	5
Regional Office for Africa							1.8	1.9		37	69
Regional Office for Asia and the Pacific		55			18	24	1.7	1.7		9	42
Regional Office for Europe and Central Asia					26	29	1.2	1.2		2	6
Regional Office for Latin America and the Caribbean	15	20			14	15	1.3	1.3		6	19
World			0.8	0.9	21	25				11	37

TABLE 17: **Vulnerability/Stability**

	Value of food imports over total merchandise exports			Cereal import dependency ratio			Percent of arable land equipped for irrigation		
	percent	percent	percent	percent	percent	percent	percent	percent	percent
	1990-92	1999-2001	2008-10	1990-92	1999-2001	2007-09	1990-92	1999-2001	2009-11
Regional office for the Near East and North Africa	12	9	7	41	53	53	30	32	42
Gulf Cooperation Council States and Yemen	8	5	5	60	83	90	40	45	56
Bahrain	7	6	5				100	100	100
Kuwait	11	7	3	100	100	100	75	70	95
Oman	8	6	5				100	100	100
Qatar	7	3	3				64	99	93
Saudi Arabia	7	6	5	48	74	83	45	48	55
United Arab Emirates	7	3	4	100	100	100	100	100	100
Yemen	126	21	31	72	79	82	26	33	56
North Africa	13	12	9	49	72	65	12	13	15
Algeria	16	13	10	62	80	71	7	7	8
Libya	9	9	4	90	91	92	26	26	27
Mauritania	27	43	23	74	68	75	10	10	10
Morocco	15	17	20	27	60	54	14	16	18
Tunisia	11	9	10	35	67	60	13	14	16
Other Near East Countries	23	18	13	35	40	39	38	40	59
Egypt	69	46	33	38	36	36	100	100	100
Iran (Islamic Republic of)	11	10	7	27	41	33	43	50	53
Iraq	29	13	9	44	73	62	67	82	91
Jordan	56	34	29	94	98	100	33	40	52
Lebanon	114	117	41	89	88	88	47	71	77
Sudan									11
Sudan (former)	42	21	15	18	22	25	15	11	
Syrian Arab Republic	16	13	21	30	22	49	16	26	28
Regional Office for Africa	10	9	9	18	18	22	4	4	3
Regional Office for Asia and the Pacific	5	4	4	11	10	9	33	31	36
Regional Office for Europe and Central Asia	7	5	6	18	16	21	16	13	13
Regional Office for Latin America and the Caribbean	9	8	6	22	30	30	13	13	13
World	7	5	5	15	15	16	19	21	23

TABLE 18: **Health and education**

	Literacy rate	Primary completion rate		School enrollment				Health expenditure	
	adult female, % of females ages 15 +	total		primary				share of GDP	
				female		male			
	percent 2005-10*	percent 1990	percent 2010	percent 1990	percent 2010	percent 1990	percent 2010	percent 1995	percent 2010
Regional office for the Near East and North Africa								3.8	4.6
Gulf Cooperation Council States and Yemen								3.1	3.6
Bahrain	90							4.6	4.3
Kuwait	92							3.8	2.6
Oman	81	62		62		67		3.6	2.7
Qatar	95	74		86	92	88	92	3.7	2.1
Saudi Arabia	81				97		97	3.0	4.0
United Arab Emirates	91	91		96		99		2.6	3.7
Yemen	47		63		70		85	4.5	5.6
North Africa								4.2	5.0
Algeria	64	81	96	81	95	94	97	4.2	4.3
Libya	83							3.5	
Mauritania	51	29			76		72	4.8	6.1
Morocco	44	52	85	46	93	67	95	3.9	5.9
Tunisia	71	80		87		97		5.8	5.7
Other Near East Countries								4.5	5.7
Egypt	64		101					3.9	4.7
Iran (Islamic Republic of)	81	87	107	90		98		3.8	5.3
Iraq	71								8.5
Jordan	89	95			91		91	8.3	8.3
Lebanon	86		87		91		92	10.7	6.2
Sudan									7.2
Sudan (former)	62							3.4	
Syrian Arab Republic	77	92	104					5.5	3.4
Regional Office for Africa			67					5.7	6.5
Regional Office for Asia and the Pacific								5.8	6.4
Regional Office for Europe and Central Asia			99					8.4	9.8
Regional Office for Latin America and the Caribbean			102					6.5	7.6
World								8.8	10.3

TABLE 19: **Population at risk**

	Droughts, floods, extr temp	UNHCR population of concern				
	% of population affected	total		total refugees	internally displaced persons	others and stateless persons
	percent 2009	thousand people 2000	thousand people 2011	thousand people 2011	thousand people 2011	thousand people 2011
Regional office for the Near East and North Africa	0.9	273	3 900	0.1	1 680	0
Gulf Cooperation Council States and Yemen	0.0	40	577	0.1	347	0
Bahrain		0	0	0.0	0	0
Kuwait	0.0	3	1	0.0	0	0
Oman		0	0	0.1	0	0
Qatar		0	0	0.0	0	0
Saudi Arabia	0.0	5	0	0.0	0	0
United Arab Emirates		0	1	0.0	0	0
Yemen	0.1	32	574	0.0	347	0
North Africa	0.2	17	218	0.0	0	0
Algeria	0.0	14	94	0.0	0	0
Libya	0.0	2	96	0.0	0	0
Mauritania	3.1	0	27	0.0	0	0
Morocco	0.1	0	1	0.0	0	0
Tunisia	0.1	0	0	0.0	0	0
Other Near East Countries	1.4	216	3 105	0.0	1 332	0
Egypt	0.0	7	114	0.0	0	0
Iran (Islamic Republic of)	3.1	77	887	0.0	0	0
Iraq	0.0	125	1 632	0.0	1 332	0
Jordan	0.4	1	456	0.0	0	0
Lebanon	0.0	3	16	0.0	0	0
Sudan		0	0	0.0	0	0
Sudan (former)	2.8					
Syrian Arab Republic	0.5	3	0	0.0	0	0
Regional Office for Africa	1.9	2 616	4 747	105.0	4 445	12
Regional Office for Asia and the Pacific	4.4	3 154	6 556	1.0	1 566	955
Regional Office for Europe and Central Asia	0.2	2 009	2 589	2.9	1 294	17
Regional Office for Latin America and the Caribbean	0.5	34	338	0.1	3 888	0
World	2.9	8 350	17 564	109.1	12 844	980

PART

3

Feeding the world

According to the 2010 document "FAO Regional Priority Framework for the Near East," with a limited and fragile natural resource base, a high population growth and an increasing demand for food, the Near East and North Africa region will have a challenging time feeding itself. The region has wealthy but food-deficit countries and poor countries with higher levels of food production. This situation makes the food security challenges of this region somewhat unique.

The farming systems prevailing in the region include irrigated, highland mixed, rain fed mixed, dry, pastoral, sparse coastal artisanal and urban-based agriculture. In several countries, traditional nomadic pastoralism has been replaced by modern mechanized farming. On-farm food production is becoming steadily less important for poor rural households. On the other hand, urban and peri-urban agriculture is important in supporting food needs of the urban poor.

Livestock contributes substantially to the livelihoods in the region, supporting a large portion of the landless and marginalized farmers particularly in arid and semi-arid areas, as well as of urban poor

in large cities. It also plays a major role in safeguarding food security and nutrition, providing high quality protein for the diets. In addition, animals represent a substitute to monetary savings and an insurance against risk, especially during crop failures or following severe drought. In certain environments, livestock provide draught power and transportation. However, the region's reliance on animal feed imports to meet the needs of the livestock sector is rapidly increasing.

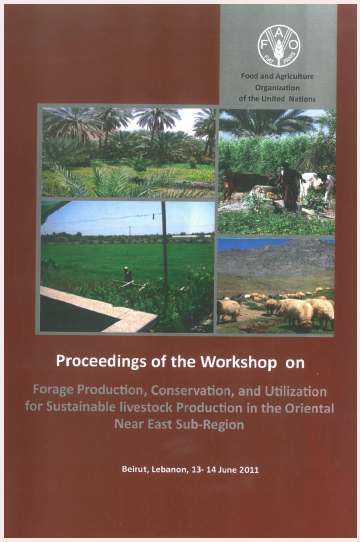
The Near East and North Africa encompasses wide and dispersed geographical areas of different marine and freshwater ecosystems and fisheries with different characteristics and complexity. The productivity of fisheries and aquaculture in the region rely upon ecosystem and natural resources that are often shared with other coastal countries.

In addition to enhancing agricultural productivity in the region, there is also critical need to reduce the amount of food wastage. Food wastage is one of the most significant but under-recognized global issues related to food insecurity. In the Near East and North Africa, the average food loss of major staple food items such as wheat ranged between six and 12 percent between 2000 and 2011.

Key Resources

Proceeding of the workshop on forage production, conservation, and utilization for sustainable livestock production in the Oriental Near East Sub-Region, Beirut, Lebanon, 13-14 June 2011

This publication discusses the major limiting factors for livestock development in the region, particularly focusing on the challenges facing sustainable farming systems for year-around forage production. The publication brings in studies by a group of experts in livestock production and irrigated and rain-fed forage production and development.

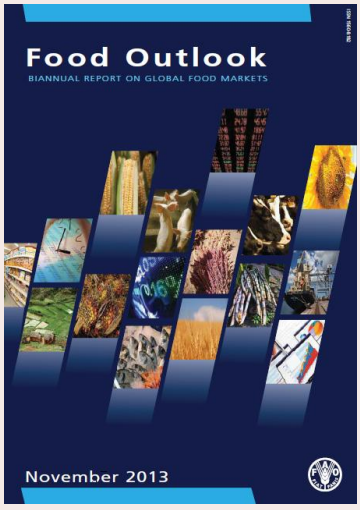


Food Outlook

Food Outlook is a biannual publication focusing on developments affecting global food and feed markets. The sub-title "Global Market Analysis" reflects this focus on developments in international markets, with comprehensive assessments and forecasts on a commodity by commodity basis. Food Outlook maintains a close synergy with another major GIEWS publication, Crop Prospects and Food Situation, especially with regard to the coverage of cereals. Food outlook is available in English, French, Spanish and Chinese.

Publication cycle: Twice a year (May/June and November/December)

Webpage:
www.fao.org/giews/english/fo/index.htm



Aggregate agriculture

In recent decades, the productive potential of global agriculture has exceeded population growth. This has led to a slow but steady increase in average per capita food availability. For the Near East and North Africa ensuring sustainable availability of adequate food supplies remains the most important challenge. Increasing domestic food supply in an efficient and sustainable manner requires addressing a wide range of factors that underpin the currently low and stagnant food production in the region, key among which is the lagging productivity growth. Agricultural productivity in the region has lingered behind other food-importing developing countries and world averages.

Over the last decades, the supply of major food groups per capita in the region has increased. Low-income countries have witnessed a modest increase in food supply per capita. A summary of the food security indicators for 2000-2002 and 2005-2007 shows that wheat flour, refined sugar, milled rice and soya bean oil were the four most commonly consumed food commodities and contributed to a larger share to the dietary energy supply. Of the four, wheat flour became the most selected staple food in almost all countries except in the former Sudan where there was a greater preference for sorghum flour takes the lead. Productivity and the availability of these food products play a large part in determining the level of food security in the region.

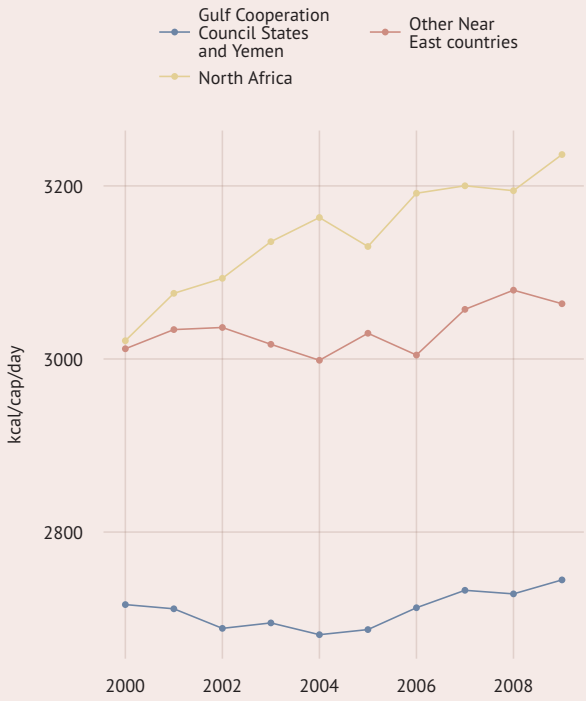
The relatively high availability of food, despite limited local food supply, is in part explained by the high level of food subsidies and safety nets. Countries in the region have been able to maintain domestic food supplies primarily through imports. Most countries in the region are net food importers, and consequently they need to secure necessary foreign exchange to finance these imports. In addition, to safeguard food supplies, they need to reduce exposure to market volatility by improving supply chain efficiency and by more effectively using financial instruments to hedge risk.

Given the fairly high levels of food consumption already attained by several countries in the region, growth in the demand for food is expected to slow down and reduce the growing dependence on food imports. The demand slowdown will be less in those countries with high population growth and low levels of per capita food consumption. Countries in this category are Mauritania, Somalia and Yemen. However, the slowdown in demand will be less pronounced if diets shift towards more livestock products whose production requires increased quantities of feed.

Further reading

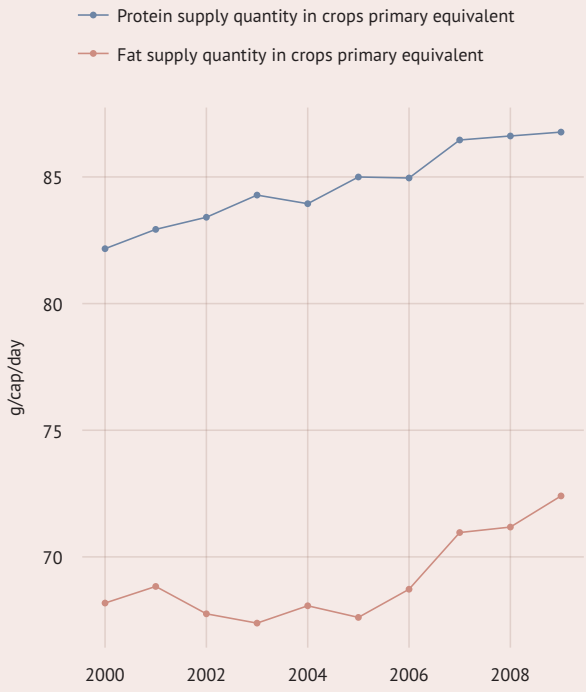
- Near East Agriculture Towards 2050: Prospects and Challenges (ftp://ftp.fao.org/docrep/fao/meeting/012/k1699E.pdf)
- FAO Agricultural Development Economics Division (www.fao.org/economic/esa/esa-home/en/)
- Bruinsma (2011)

CHART 50: **Food supply in crops primary equivalent (2000-2009)**



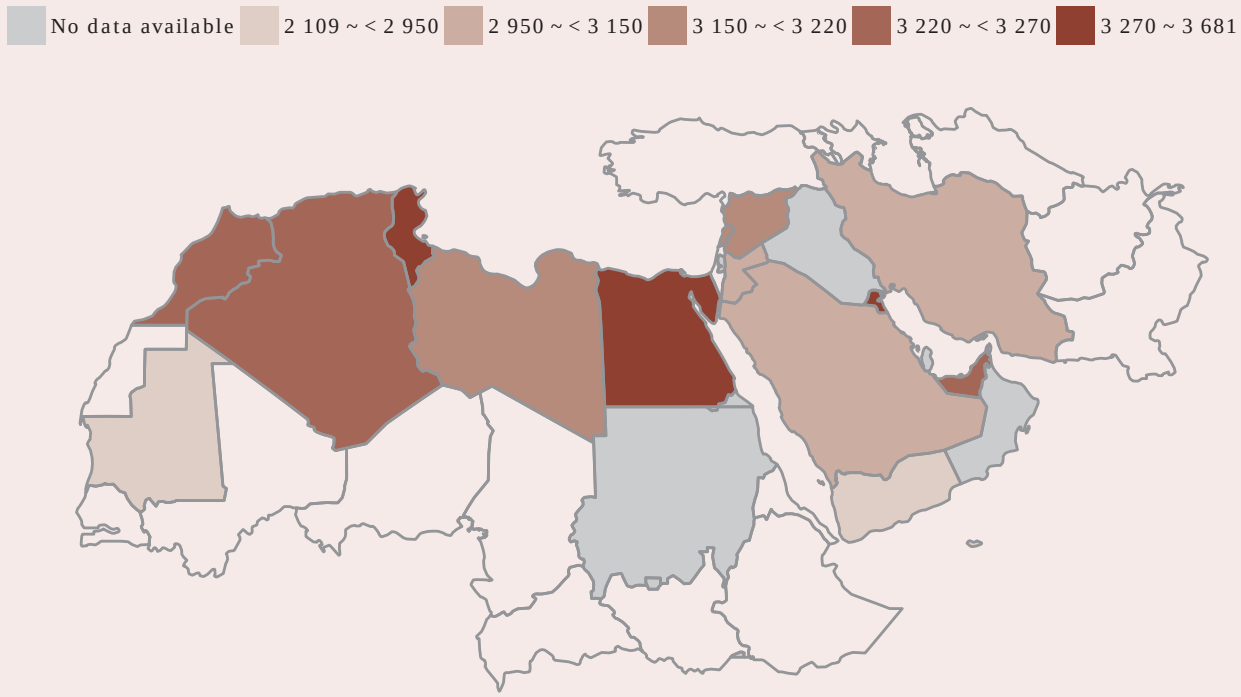
Source: FAO, Statistics Division (FAOSTAT).

CHART 51: **Near East and North Africa protein and fat supply in crops primary equivalent (2000-2009)**



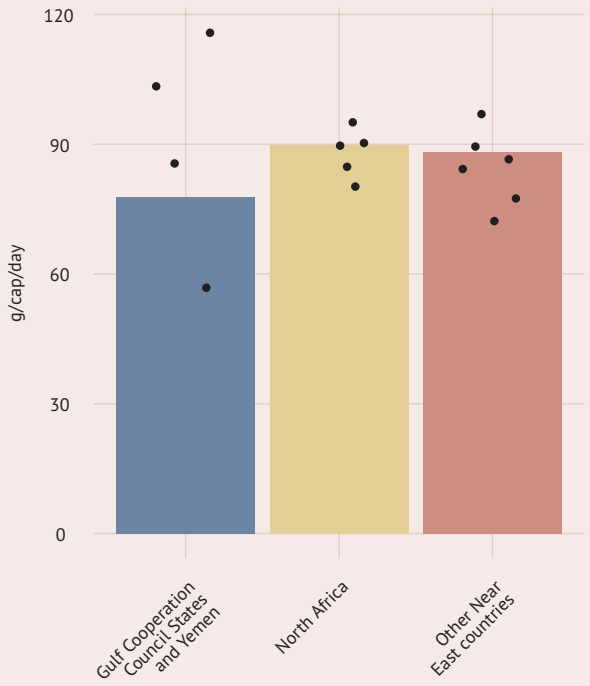
Source: FAO, Statistics Division (FAOSTAT).

MAP 31: **Food supply in crops primary equivalent (kcal/cap/day, 2009)**



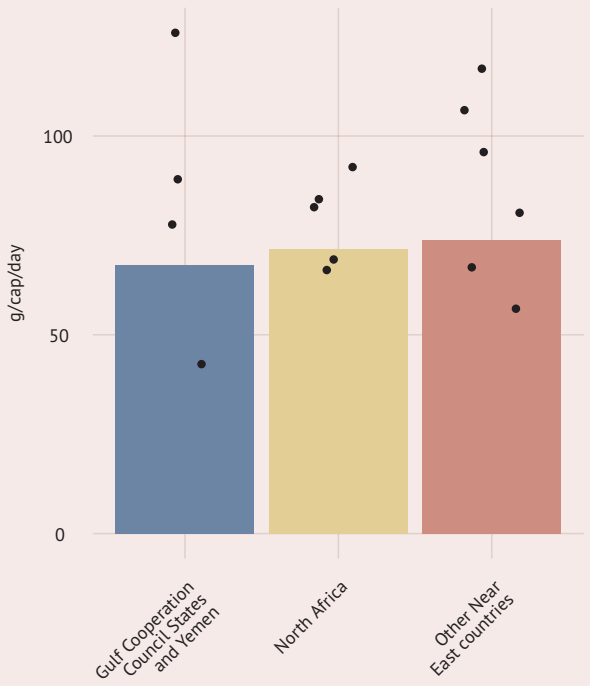
Source: FAO, Statistics Division (FAOSTAT).

CHART 52: **Protein supply in crops primary equivalent (2009)**



Source: FAO, Statistics Division (FAOSTAT).

CHART 53: **Fat supply in crops primary equivalent (2009)**



Source: FAO, Statistics Division (FAOSTAT).

Growth in crop production

Over the last decade, crop production in the region has grown faster than the global average. This increase has been driven largely by higher yields per unit of land, and crop intensification. The expansion of arable land area allocated to crops has played a less important part in production increases. These trends are not uniform across regions. For instance, most of the growth in wheat and rice production in developing countries in the land-scarce regions of Asia and Northern Africa has been the result of gains in yield. However, in the Near East and North Africa region, yields gains in many important crops have not kept pace with global advances.

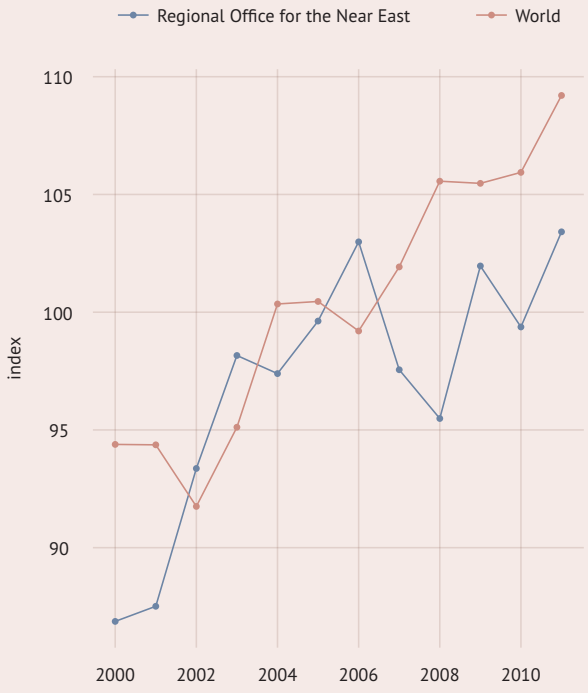
The area of arable land and permanent crops in the Near East and North Africa is estimated at 83 million hectares, which accounts for about 15 percent of the region's total agricultural land. This percentage varies, with the lowest (less than 3 percent) in Saudi Arabia, Mauritania and Yemen (countries with vast range land) to the highest in countries such as Egypt, Iraq and Tunisia, with over half of the agricultural land being arable. Only 32 percent of the arable land is irrigated, but it contributes more than 50 percent of the total agricultural production in the region. Cereal crops, mainly wheat and barley, with rice and sorghum in some countries, are the dominant crops, followed by forage and olives. In terms of economic value, cereals are the most important crops in countries such as Egypt, Iran, Morocco and Syria, whereas horticultural crops are relatively more important for countries like Jordan, Lebanon and Tunisia.

Agricultural productivity varies widely among the region's countries, which suggests that there is considerable potential for improvement. Measured in agriculture value added per worker, productivity more than doubled in Egypt and Morocco in the last 40 years, while it has remained the same in Yemen and Mauritania. Some countries in the region have made sizeable progress in increasing their agricultural productivity and overall agriculture sector growth, but agriculture performance in many countries still lags.

Further reading

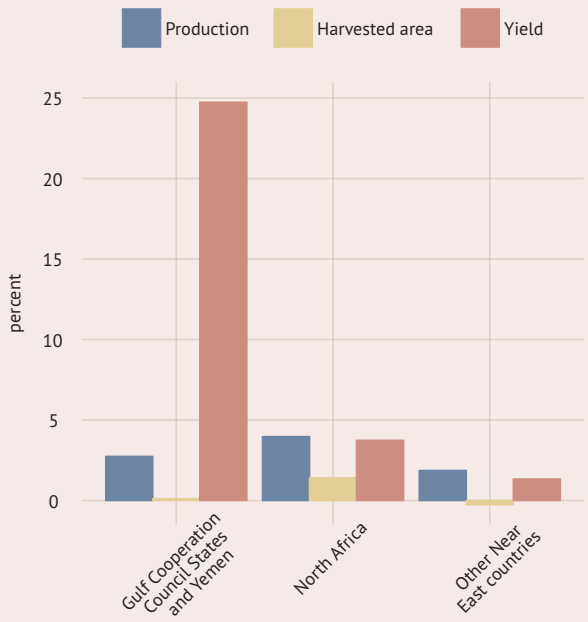
- FAO World Agriculture: Towards 2030/2050 - Prospects for Food, Nutrition, Agriculture and Major Commodity Groups (www.fao.org/docrep/009/a0607e/a0607e00.htm)
- FAO Food Outlook (www.fao.org/giews/english/fo/index.htm)

CHART 54: **Crops, gross per capita production index number (2004-2006 = 100) (2000-2011)**



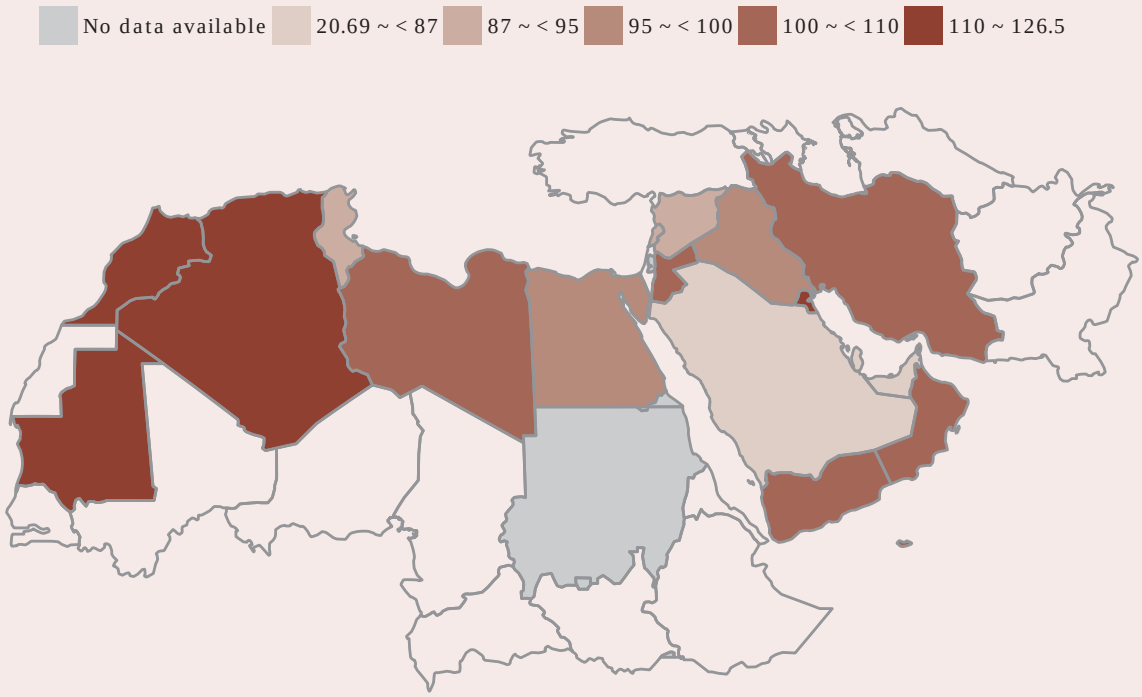
Source: FAO, Statistics Division (FAOSTAT).

CHART 55: **Growth in cereal production (2012)**



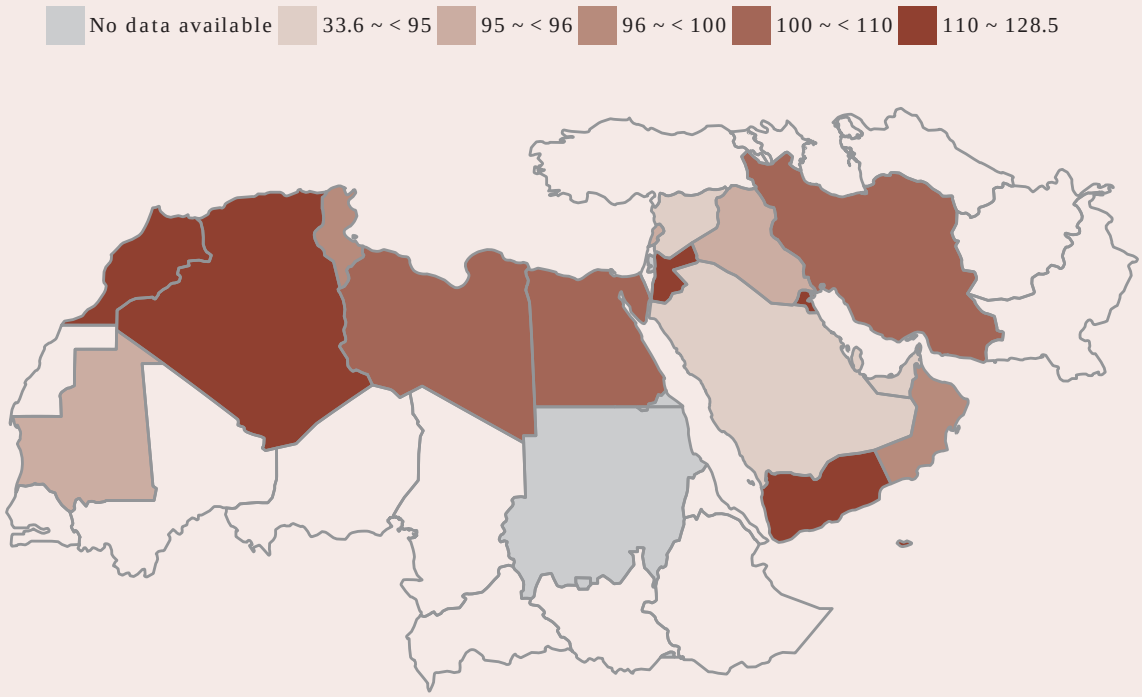
Source: FAO, Statistics Division (FAOSTAT).

MAP 32: **Crops, net per capita production index number (2004-2006 = 100) (index, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

MAP 33: **Food, net per capita production index number (2004-2006 = 100) (index, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

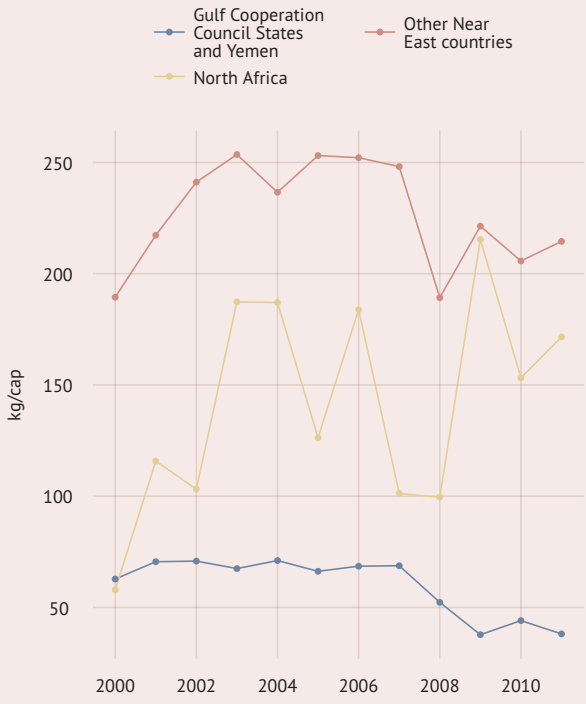
Trends in the crop sector

In 2011, the Near East and Africa region produced nearly 75 million tonnes of cereals, an increase of over 4 million tonnes from the year before. Cereals include barley, maize, millet, oats, rice, rye, sorghum, triticale and wheat. Between 2000 and 2011, the area under cereal cultivation in the region has increased by 2.3 percent and yields have grown by 10.3 percent. As a result, cereal production has grown by 5.4 percent during this period after growing by only 1.1 percent in the preceding decade. Between 1990 and 2000, 11 countries in the region had negative annual growth rates for cereal production. In contrast, between 2000 and 2011, only Qatar and Saudi Arabia registered negative annual growth. Out of the countries in the region with extensive areas under cereal cultivation, Iraq recorded the highest annual growth in production (15.2 percent), followed by Morocco and Algeria (14.3 and 13.4 percent)

Despite this increase, average cereal yields in region (19.4 kg per hectare) are still considerably lower than the global average (36.6 kg per hectare), and production growth is lagging behind other developing regions. In 2010, Egypt overtook the Islamic Republic of Iran as the largest cereal producer in the region. Although both countries produced over 20 million tonnes of cereal, Egypt, which had cereal yields over 70 kilograms per hectare, did so on less than one third of land that is used in the Islamic Republic of Iran, which had yields of only 21.8 kilograms per hectare. Libya also has low yields (7.5 kilograms per hectare). In Jordan, which has the third lowest yields (8.1 kilograms per hectare), yields declined by more than six percent annually. The country's growth in production was entirely due to a 10.8 annual increase in the area under cereal cultivation, by far the largest increase in the region. These figures indicate the tremendous potential for intensifying cereal production in the region.

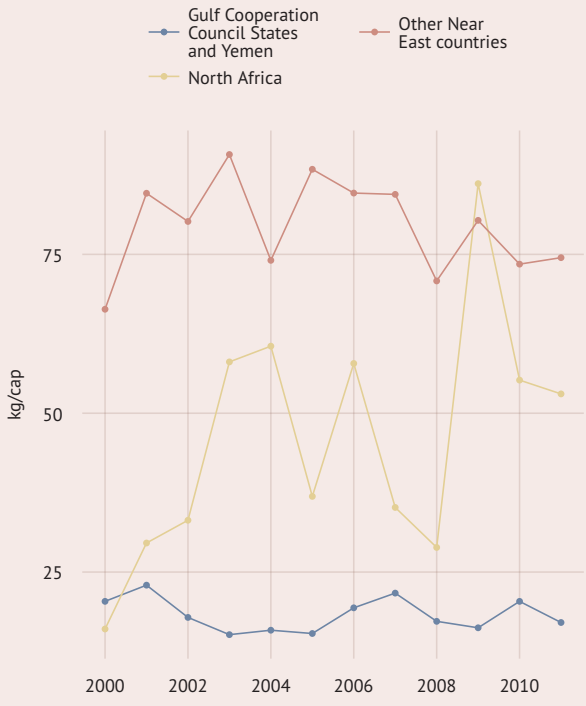
The situation for coarse grains in the region is similar to the one for cereals in general. In 2011, the Near East and North Africa produced 25 million tonnes of coarse grains, a very slight increase over the previous year. Between 2000 and 2011 yields in the region (12.9 kilograms per hectare) increased, but they remain well below the global average (36 kg per hectare).

CHART 56: **Per capita cereal production (2000-2011)**



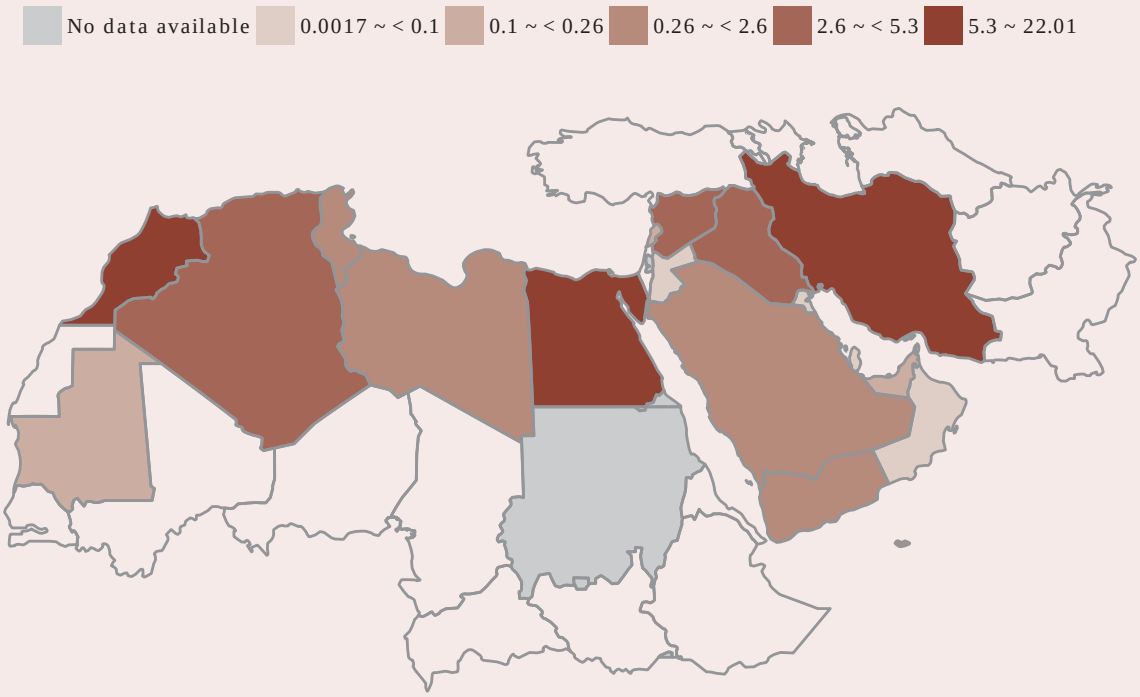
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

CHART 57: **Per capita coarse grain production (2000-2011)**



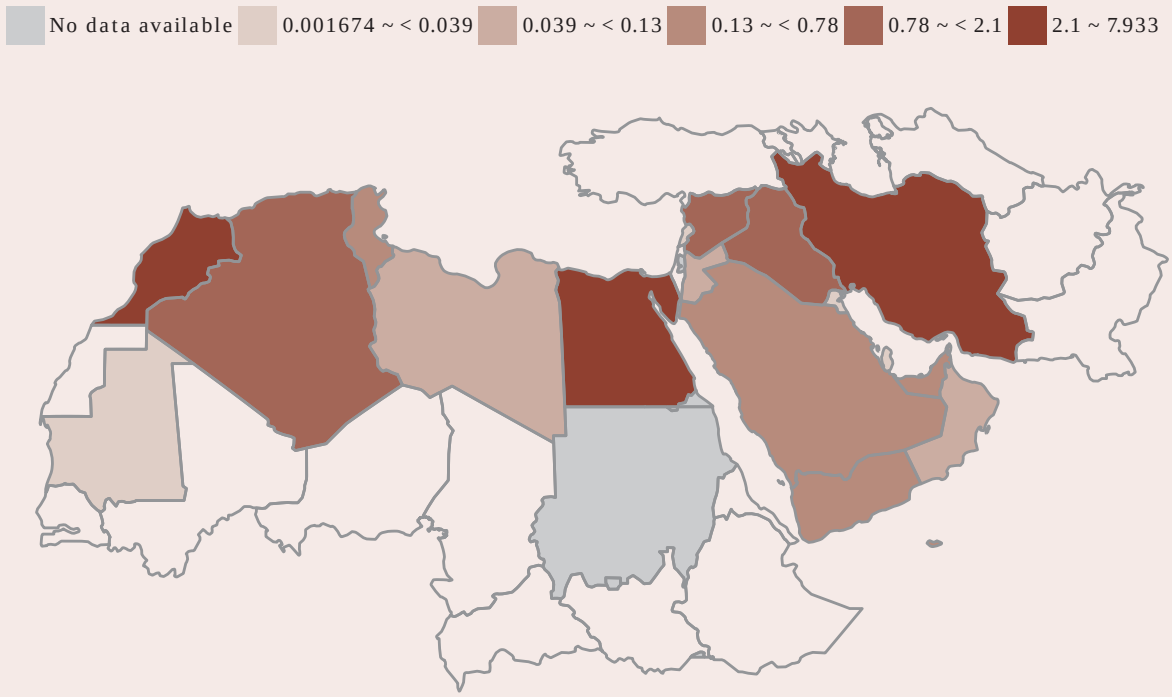
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

MAP 34: **Cereal producing countries (million tonnes, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

MAP 35: **Coarse grain producing countries (million tonnes, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

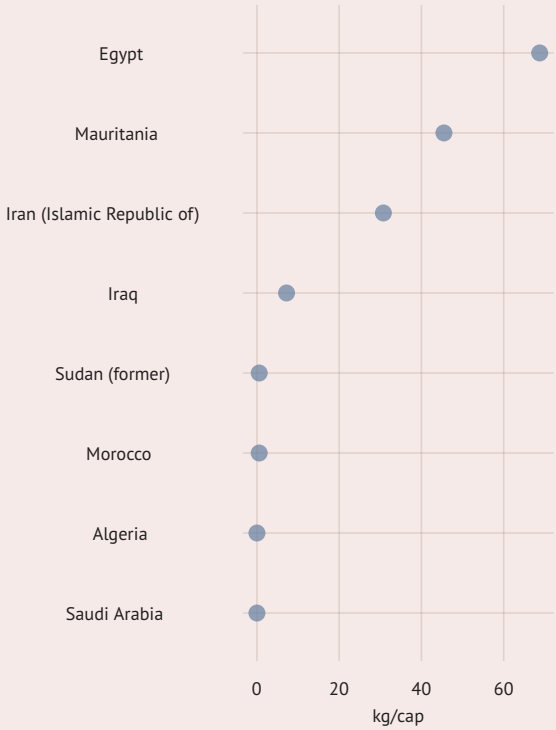
Egypt and the Islamic Republic of Iran are the only two significant rice producers in the region, ranking fifteenth and twenty-fourth respectively in the world in 2011. In Egypt production rose from 4.3 million tonnes in 2010 to 5.7 million tonnes in 2011. However, over the last decade, the country's annual growth rate in rice production declined as yields have increased only slightly and the area under rice cultivation declined by one percent annually between 2000 and 2011. On the other hand, although production dropped to 2.3 million tonnes in 2011 from 3 million tonnes the year before, the Islamic Republic of Iran has shown greater annual growth in production between 2000 and 2011 (1.4 percent). This growth is due to an annual increase in yields of 2.8 percent as the area under rice cultivation decreased by 1.4 percent per year.

Almost all countries in the region for which data are available showed a contraction in the area under rice cultivation. In only two countries was there an expansion of rice cultivation: Mauritania (5.1 percent per year) area the Sudan (1.9 percent per year).

In 2011, wheat production in the region was over 40 million tonnes, an increase of roughly 4 tonnes over the previous year, and annual growth was a robust 6.6 percent during the previous decade. Yields reached 23.2 kg per hectare, which is slightly lower than the global average. Egypt, the region's second largest wheat producer and seventeenth in the world, had the highest yields in 2011 (65.4 kg per hectare). The Islamic Republic of Iran, which ranked fifteenth in the world, has yields of 19 kilograms per hectares. Morocco, which had similar yields and was the region's third largest producer, registered the second largest greatest annual increase in yields between 2000 and 2011 (13.7 percent). Iraq, which also had yields of roughly 19 kilograms per hectare, recorded the greatest annual increase in yields (17.9 percent) and the highest growth in production (19.8 percent).

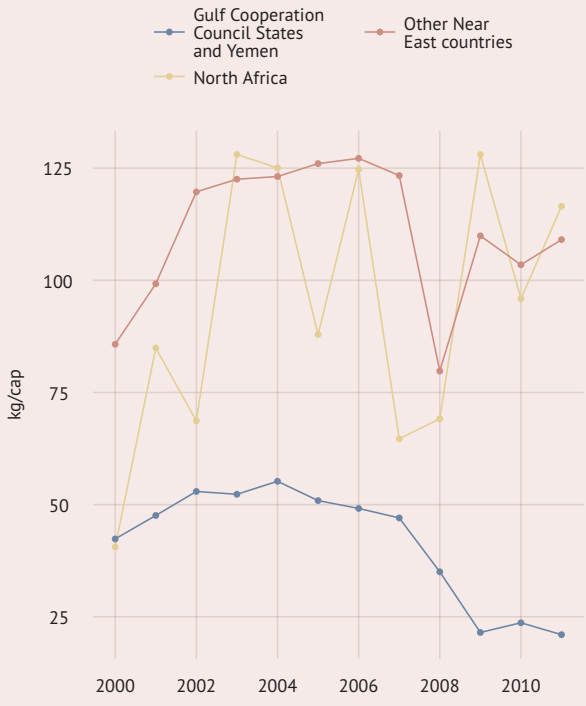
Between 2000 and 2011, the area under wheat cultivation in the region increased by 2.2 percent annually. Mauritania registered the largest annual expansion (16.9 percent) in wheat cultivation and the second highest annual increase in production growth (18 percent) over the last decade. Yields in the country were relatively low (16 kilograms per hectare) and increased only slightly. Kuwait also registered high production growth (15 percent per year) as a result of considerable expansion in the area under cultivation (14.9 percent per year) and very limited increase in yields.

CHART 58: **Per capita rice production, selected countries (2011)**



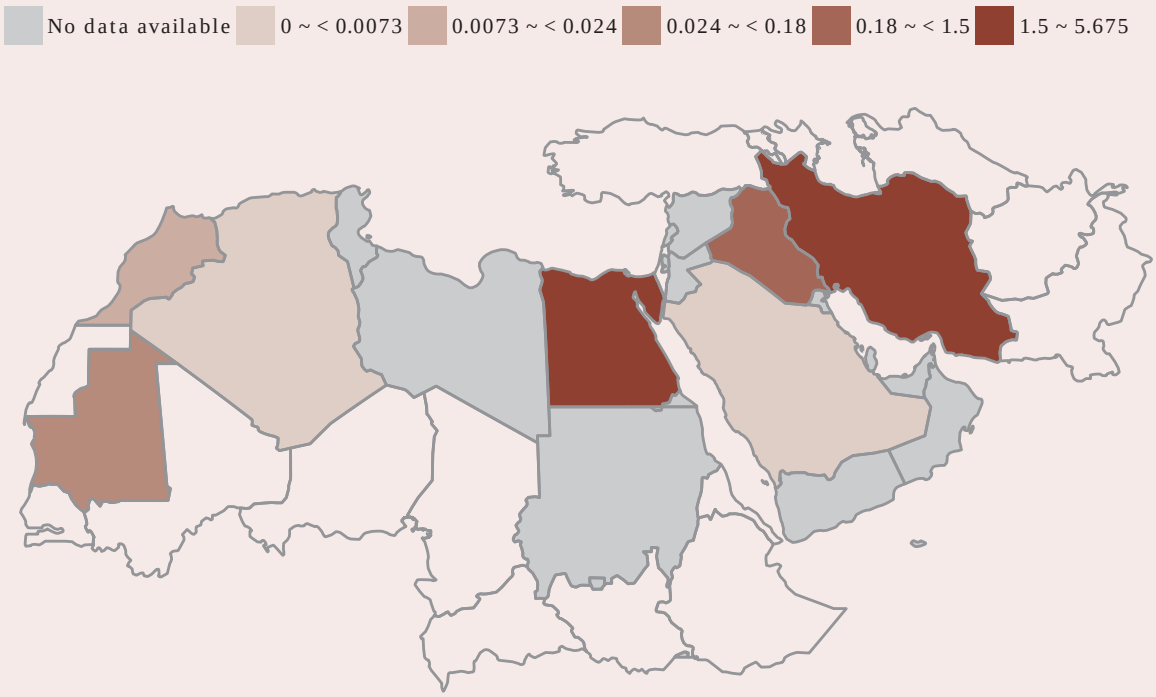
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

CHART 59: **Per capita wheat production (2000-2011)**



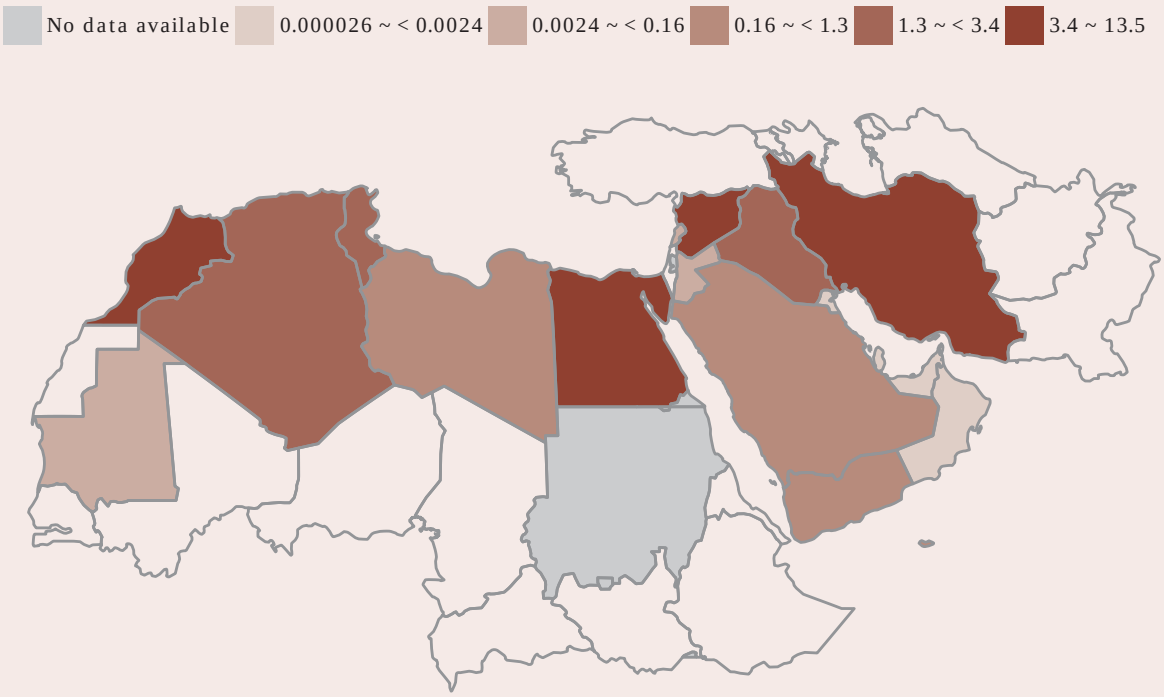
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

MAP 36: **Rice producing countries (million tonnes, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

MAP 37: **Wheat producing countries (million tonnes, 2011)**



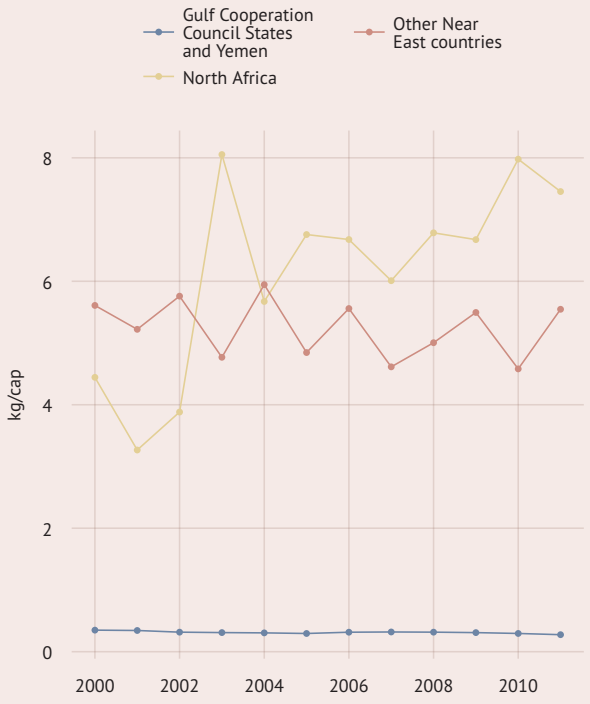
Source: FAO, Statistics Division (FAOSTAT).

In recent decades, oil crop production has been among the most vibrant activities in world agriculture. Over the 2000–2010 decade alone, the sector grew by almost 5 percent per annum following growth of food consumption in developing countries. The four most important oil crops – oil-palm, soybean, rapeseed and sunflower seed – account for approximately 75 percent of world production. In the Near East and North Africa, production of oilcrops increased to over 2 million tonnes in 2011. The annual growth rate in oilcrop production between 2000 and 2011 (3.9 percent) dropped nearly two points from the preceding decade and was far below other regions. Yields in the region were only 2.5 kilograms per hectare, once again far below averages for other regions.

In 2011, the former Sudan was the largest oilcrop producer in the region (602 000 tonnes). Although the country's yields were relatively low, they did increase by more than three percent annually between 2000 and 2011 and production grew by 2.6 percent despite a slight contraction in the area under oilcrop cultivation. Morocco, the region's second highest producer in the region, registered the highest annual growth in production (11 percent), thanks to robust annual increase in yields (6.5 percent) and a 4.3 percent annual expansion in cultivated area. Only the Islamic Republic of Iran recorded a greater increase in yields (6.8 percent) and achieved strong yearly production growth (7.3 percent) without significantly expanding oilcrop cultivation.

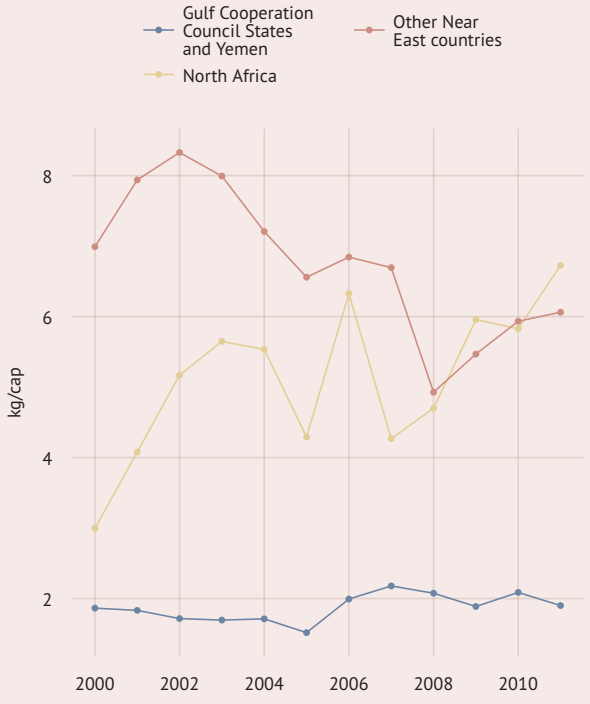
In 2011, the region produced 2.3 million tonnes of pulses, a slight increase over the previous year. Annual growth between 2000 and 2011 was 3.5 percent, which is higher than the global average. As with other crops, pulse yields in the region (9.7 kilograms per hectare) are slightly above the global average (8.6 kilograms per hectare). The Islamic Republic of Iran is by far the largest producer (729 000 tonnes) in the region, producing more than twice as much as Morocco, the next highest producer (340 000 tonnes). Morocco and Algeria had the highest annual growth in production (11.7 percent), largely because these countries recorded the largest annual increase in yields (10 percent and 9.4 percent respectively). As with oilcrops, the former Sudan, the region's third largest producer of pulses, was able to maintain modest annual production growth (2.2 percent) despite the fact that it was the only country in the region to register negative annual growth in yields (- 4.8 percent). Pulse production growth in the country was entirely driven by a strong expansion in cultivated area (7.3 percent per year). Iraq had by far the greatest annual decline in pulse production (13 percent) due to the fact that the country also had the largest contraction in the area under cultivation (14.4 percent).

CHART 60: **Per capita oil crop production (2000-2011)**



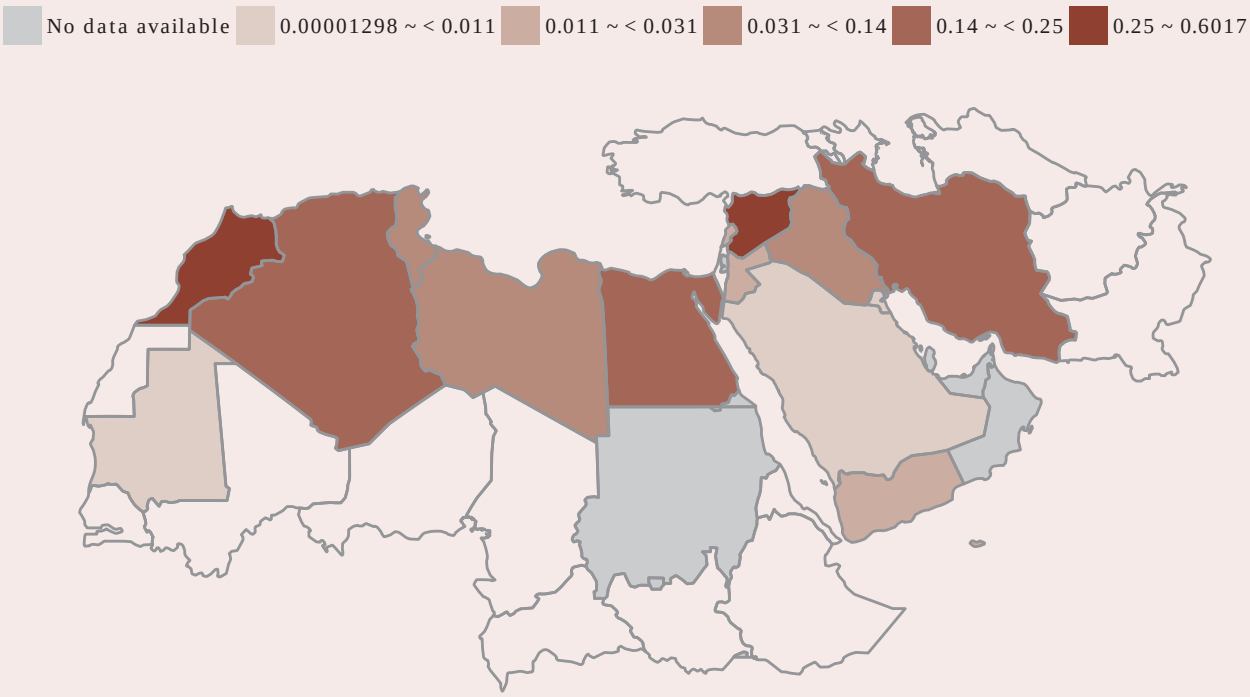
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

CHART 61: **Per capita pulse production (2000-2011)**



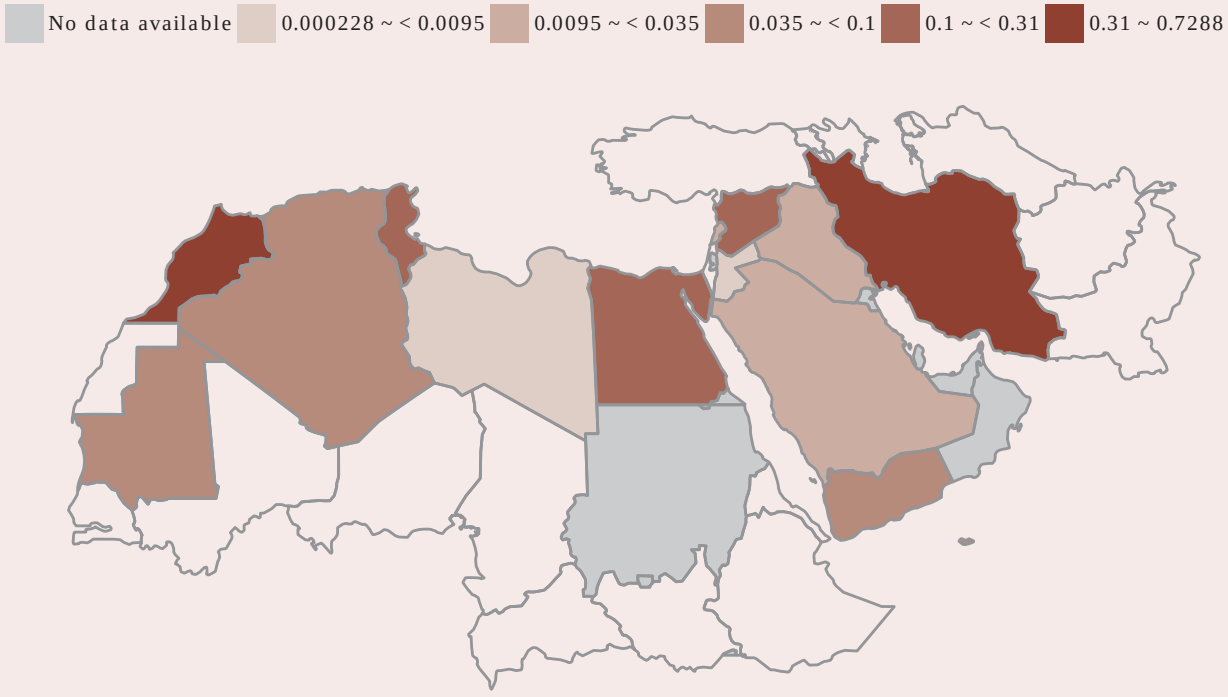
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

MAP 38: **Oil crop producing countries (million tonnes, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

MAP 39: **Pulse producing countries (million tonnes, 2011)**



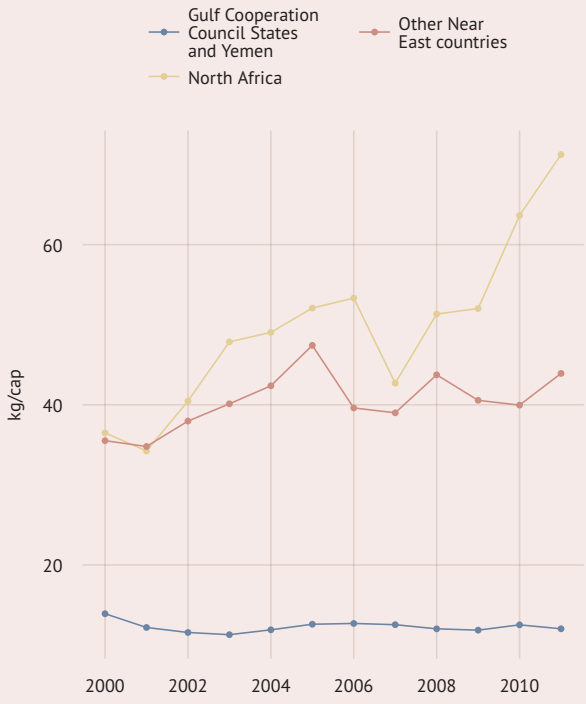
Source: FAO, Statistics Division (FAOSTAT).

The Near East and North Africa produced roughly 19 million tonnes of roots and tubers in 2011, a slight increase over the previous year. Between 2000 and 2011, annual production growth in the region was 5.7 percent. The region does not produce a significant share of the global production of roots and tubers. It does however have the highest yields of any region (233 kilograms per hectare).

In2011, Egypt and the Islamic Republic of Iran, the region's two largest producers, ranked thirty-second and thirty-fourth in the world in roots and tuber production. Egypt showed strong annual growth in production between 2000 and 2011, largely due to a 6.7 percent annual increase in the area under cultivation (the highest expansion for a major producer in the region) as yields grew by only one percent annually. In contrast, the Islamic Republic of Iran had very modest annual growth (1.9 percent) despite higher yields, as the country saw a slight reduction in the area under roots and tuber cultivation. Algeria, the third largest producer in the region, had the highest annual growth in production (11.1 percent) and recorded the highest annual increase in yields (5.3 percent) of the region's major producers, as well as a significant expansion in the area under cultivation (5.6 percent per year).

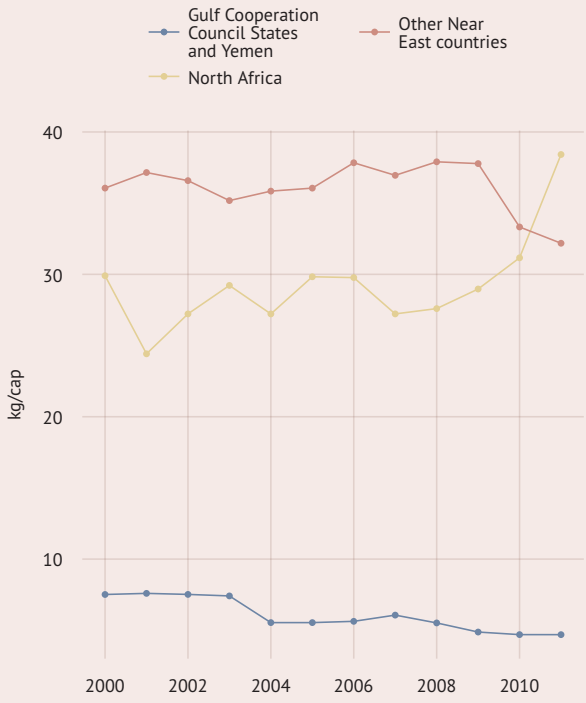
Data on sugar production is available from only seven countries in the region. Egypt is by far the region's largest sugar producer, producing 7.6 million tonnes between 2009 and 2012 and registering the highest annual production growth between 2000 and 2011 (9 percent). This growth in sugar production was due to a 9.3 percent annual expansion in the area cultivated, as there was a slight decline in yields. Iraq, a very small sugar producer, expanded it cultivation of sugar by nearly 15 percent, the highest in the region, but also recorded one of the highest annual negative growths in yields (-7.4 percent). The four other sugar-producing countries reduced the area under sugar cultivation.

CHART 62: **Per capita root and tuber production (2000-2011)**



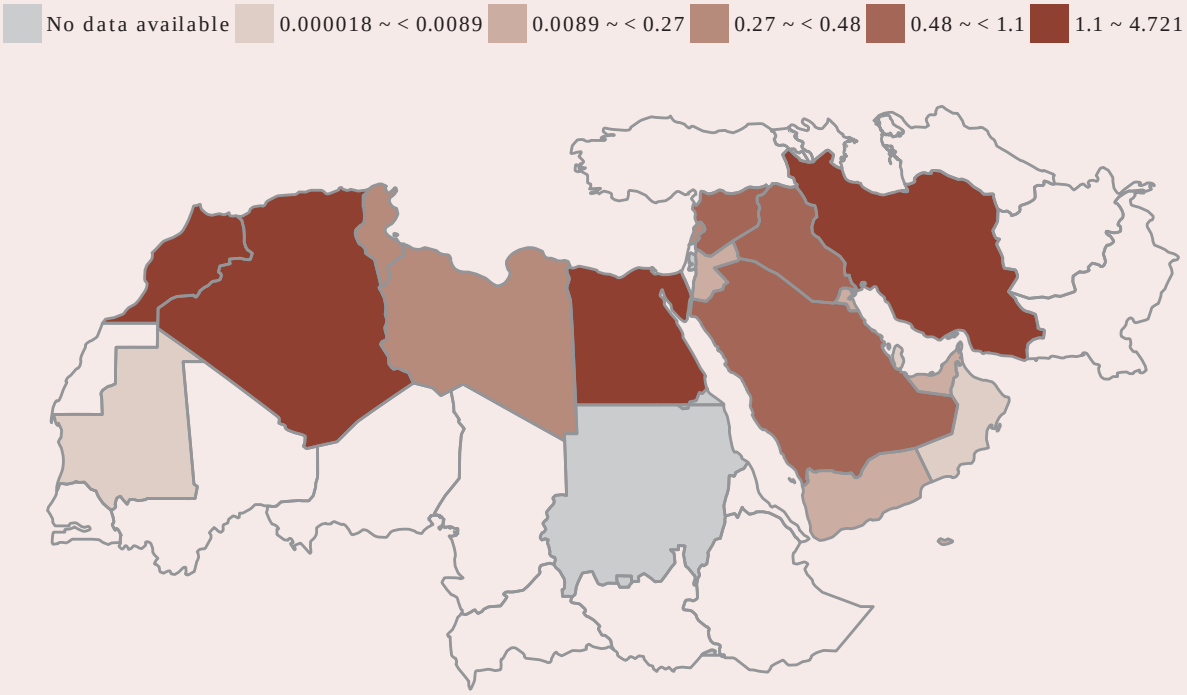
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

CHART 63: **Per capita citrus fruit production (2000-2011)**



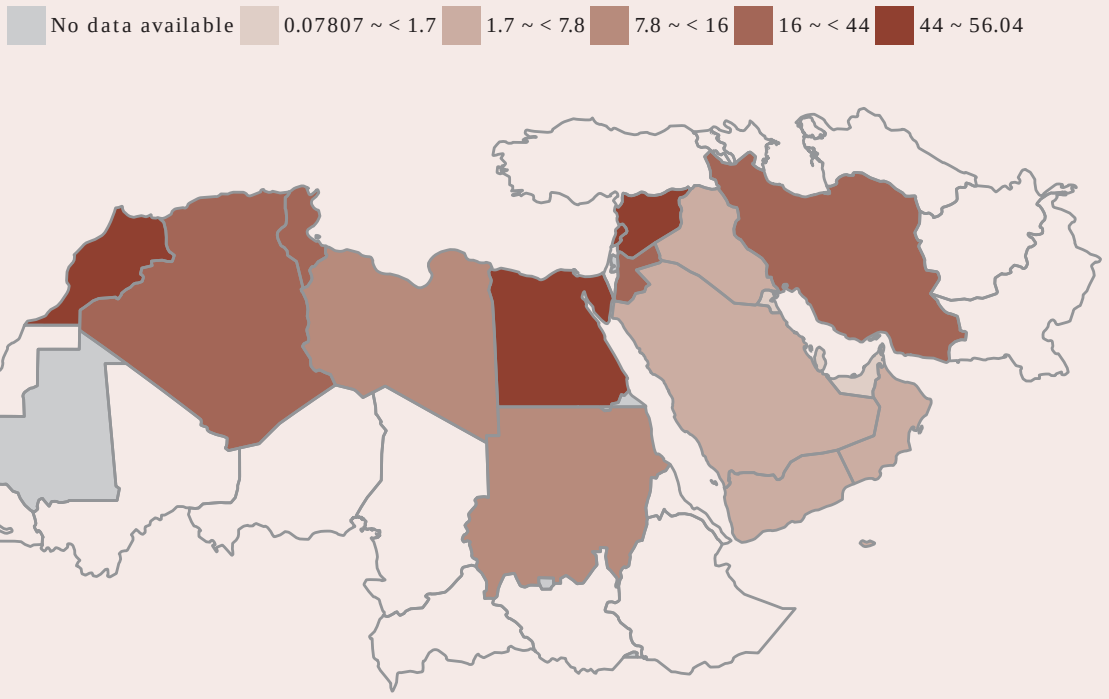
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

MAP 40: **Root and tuber producing countries (million tonnes, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

MAP 41: **Per capita citrus fruit production (tonne/cap, 2011)**



Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

Global fruit and vegetable production has experienced a remarkable increase. Output has been growing at an annual rate of about 3 percent over the last decade. In 2011, almost 640 million tonnes of fruit and more than 1 billion tonnes of vegetables were harvested around the world.

In 2011, the Near East and Africa produced 41 million tonnes of fruit, a very modest increase over the previous year. Between 2000 and 2011, annual growth in fruit production in the region (2.5 percent) was lower than the global average (3.4 percent) and declined by over two percentage points from the previous decade. In 2011, the Islamic Republic of Iran and Egypt the region's largest producers, ranking eleventh and fifteenth respectively on the list of top fruit producing countries. Morocco and Algeria were the next highest producers in the region and the only other countries to be ranked in the top forty. In 2011, fruit yields were 107 kilograms per hectare, which is lower than the global average (112.7 kilograms per hectare). Between 2000 and 2011, Algeria, which had the greatest annual increase in yields (4 percent) and the largest annual expansion of area under fruit cultivation (4.9 percent) recorded the highest annual increase in fruit production (9 percent). The Islamic Republic of Iran was the region's only large producer that registered negative production growth (-0.4 percent) during this time, as yields increased insignificantly and the area under fruit cultivation contracted by 0.6 percent per year.

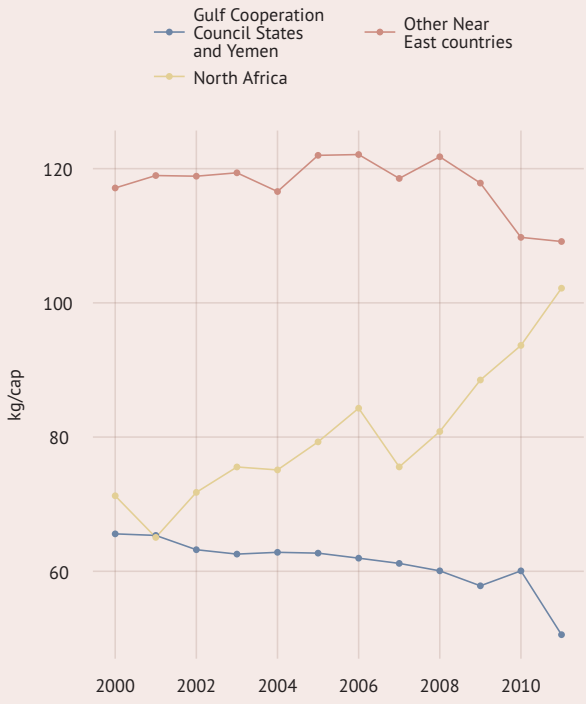
In 2011, the Near East and North Africa produced 74 million tonnes of vegetables, an increase of nearly 5 million tonnes over the previous year. For the past two decades the annual growth in production has been over four percent, the highest for any of FAO's regions. In 2011, the Islamic Republic of Iran and Egypt ranked fifth and sixth respectively in global vegetable production.

Vegetable yields in the region are 225 kilograms per hectare, which is higher than the world average (193 kilograms per hectare). Between 2000 and 2011, the annual growth in vegetable yields (1.8 percent) also exceeded the global rate (1.5 percent). Of the region's top vegetable producers, Algeria had the highest yearly increase in yields (4.4 percent) and, as a result, had the highest annual growth in production (7.3 percent). The Islamic Republic of Iran recorded the second highest annual growth rate (6.7 percent), in part because the country had the region's highest annual expansion of area under vegetable cultivation (4.3 percent), while yields increased relatively modestly (2.3 percent per year). Egypt recorded the lowest positive level of growth in vegetable yields (0.2 percent per year).

Further reading

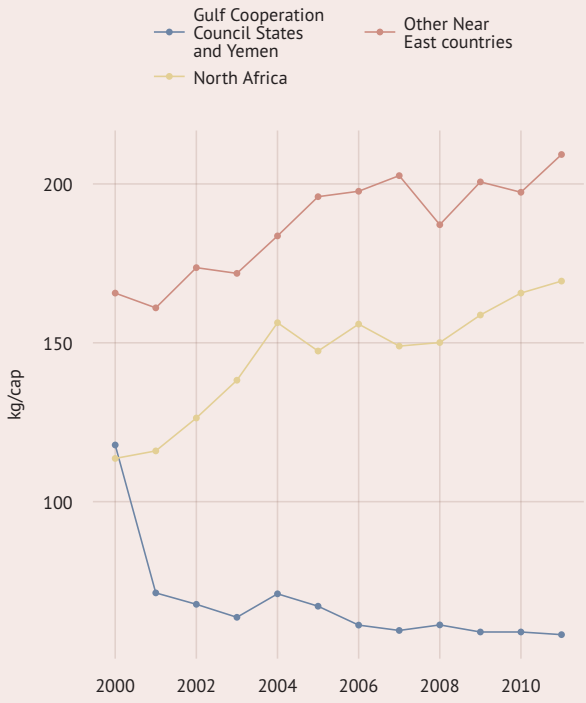
- The State of Food and Agriculture 2012: Investing in agriculture for a better future (www.fao.org/publications/sofa/en/)
- OECD-FAO Agricultural Outlook 2012-2021 (www.oecd.org/site/oecd-faoagriculturaloutlook/)

CHART 64: **Per capita fruit production, excluding melons (2000-2011)**



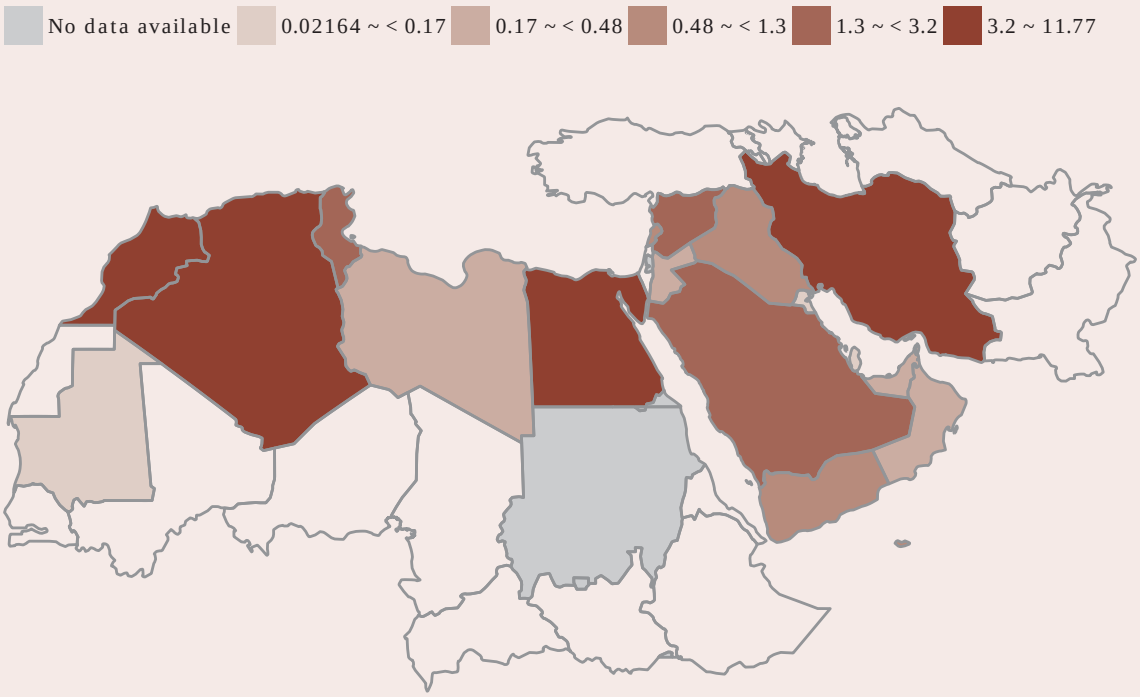
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

CHART 65: **Per capita vegetable production, including melons (2000-2011)**



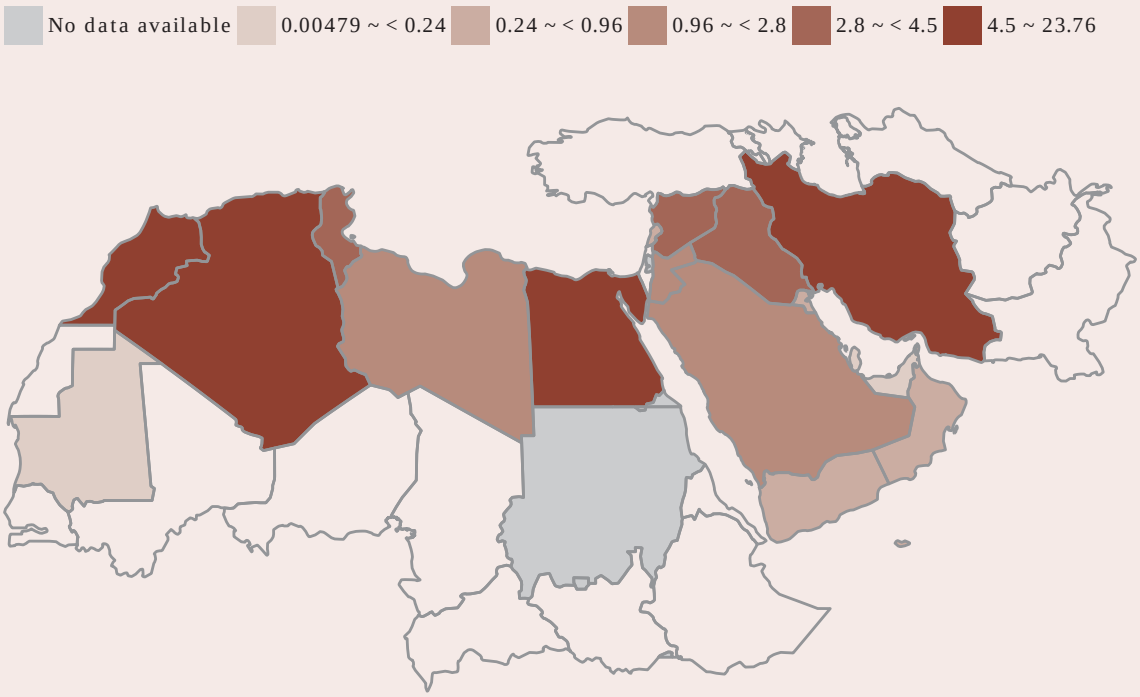
Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

MAP 42: **Fruit producing countries, excluding melons (million tonnes, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

MAP 43: **Vegetable producing countries, including melons (million tonnes, 2011)**



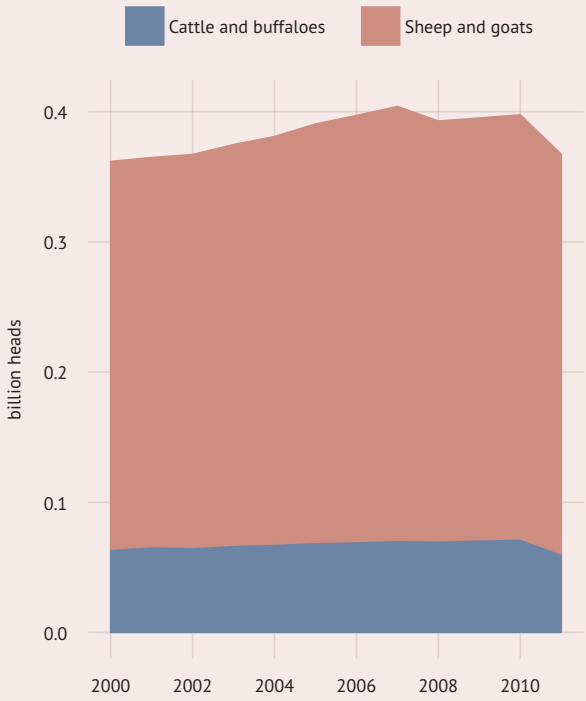
Source: FAO, Statistics Division (FAOSTAT).

Trends in the livestock sector

Growth has gradually declined for cattle, from almost 2 percent per year in the 1960s to less than 1 percent per year over the last decade. Pig stocks have experienced an even more radical decline, from a growth rate of more than 4 percent per year 50 years ago to only 0.8 percent per year since 2000. Sheep and goat production has also seen little growth over the last decade. On the other hand, growth in poultry stocks continues to be significant, growing at an average of 3 percent per year. Although there are considerable variations in growth within the region, on the whole the situation in the Near East and North Africa largely reflect these global trends. Pork production is extremely limited in the region due to the widespread religious interdiction against eating pork.

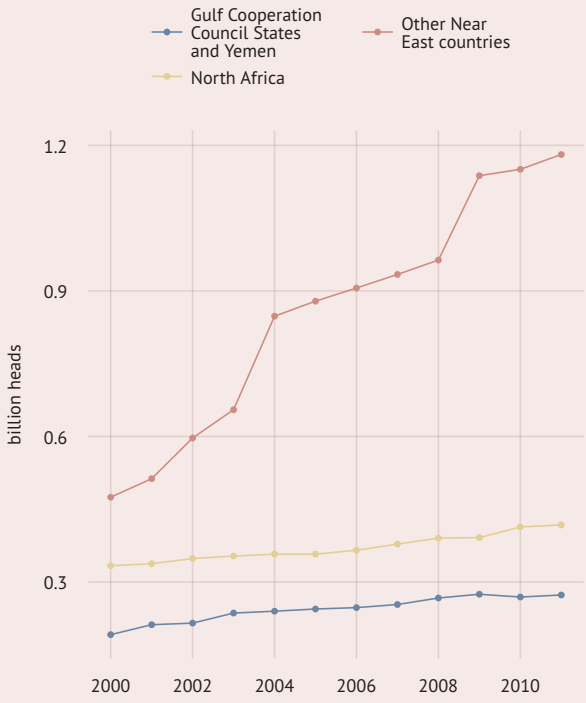
Livestock plays an important role in the economies of the Near East and North Africa. Excluding poultry, the livestock population in the region has more than doubled in the last 40 years, while poultry shows more than a 9-fold increase during the same period. The value of livestock products accounts for between 30–50 percent of agricultural output in the region. This share is expected to continue to increase, the poultry sub-sector being the fastest growing component. A number of constraints, including climatic and environmental conditions, low productivity, animal diseases, and poor access to markets, instability of input provisions, conflicts and insecurity can seriously impede the development of the sector. About 90 percent of all of the region's breeds are bred and kept in the drylands, constituting a valuable yet untapped resource for future adaptation to climate change.

CHART 66: **Near East and North Africa stocks of cattle and buffaloes, and sheep and goats (2000-2011)**



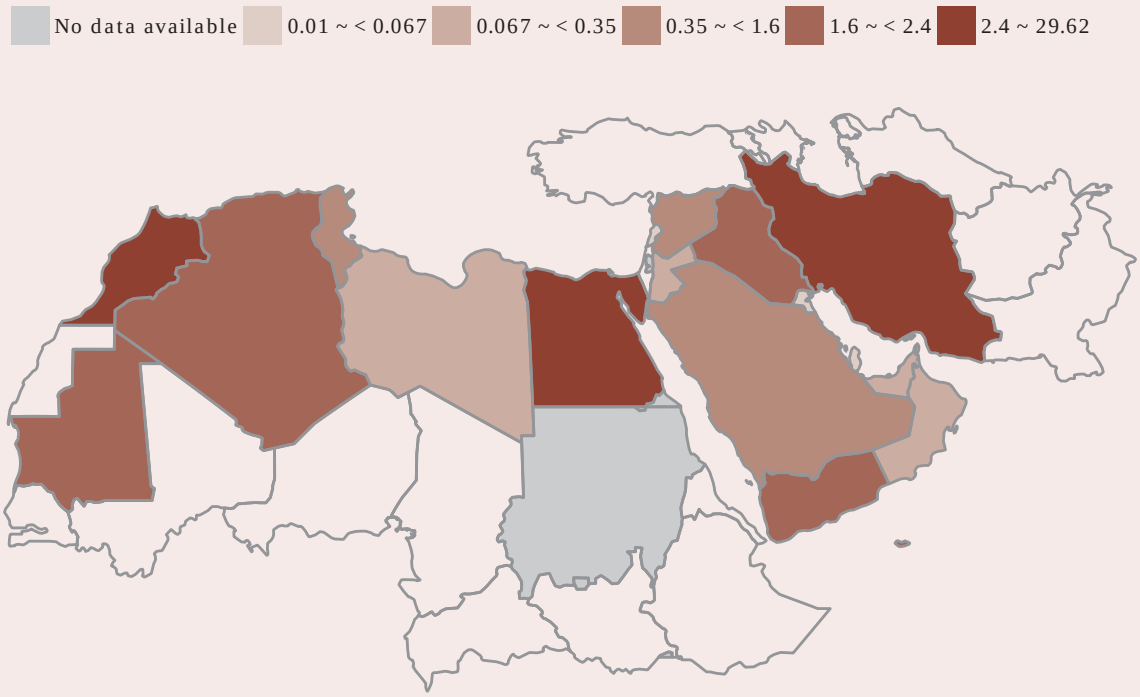
Source: FAO, Statistics Division (FAOSTAT).

CHART 67: **Stock of poultry birds (2000-2011)**



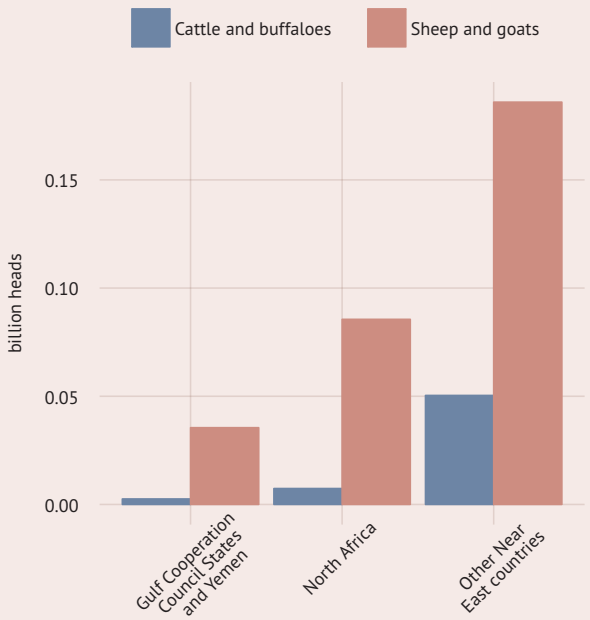
Source: FAO, Statistics Division (FAOSTAT).

MAP 44: **Stock of cattle and buffaloes (million heads, 2011)**



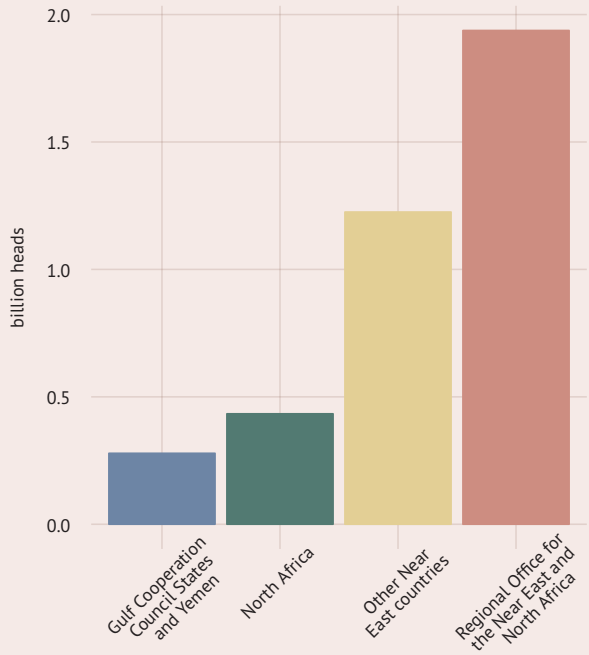
Source: FAO, Statistics Division (FAOSTAT).

CHART 68: **Stocks of cattle and buffaloes, and sheep and goats (2011)**



Source: FAO, Statistics Division (FAOSTAT).

CHART 69: **Stock of poultry birds (2011)**



Source: FAO, Statistics Division (FAOSTAT).

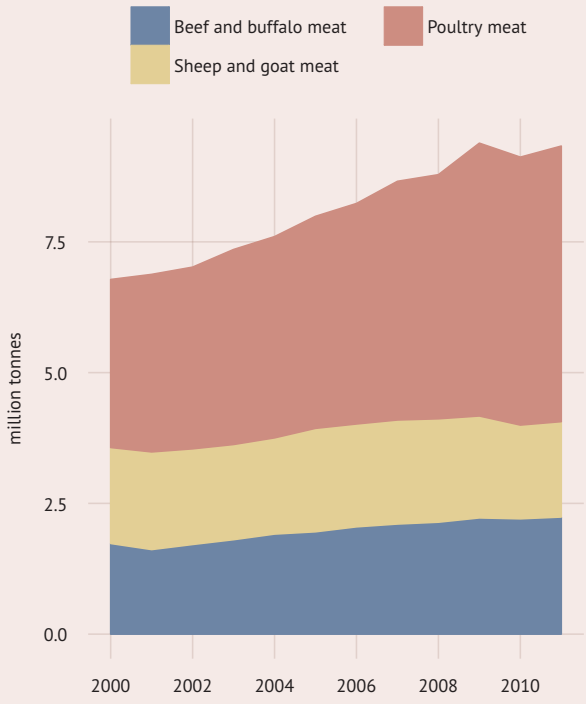
The region accounts for the smallest share of global meat production of any of FAO's regions. The Islamic Republic of Iran (2.2 million tonnes), Egypt (2 million tonnes) and Morocco (1.1 million tonnes) are the region's largest meat producing countries. Of these three countries, Morocco recorded the highest annual production growth (5.2 percent) between 2000 and 2011. Yemen registered the highest annual production growth (6.8 percent) in the region.

In 2011, Egypt was by far the region's largest producer of beef and buffalo, producing more than twice as much (850 000 tonnes) as the former Sudan (345 000 tonnes), the next largest producer. Between 2000 and 2011, Jordan had the highest annual growth in production (9.6 percent), followed by Yemen (7.1 percent). The Islamic Republic of Iran recorded the largest negative growth rate in beef and buffalo production (-1.4 percent per year).

The Islamic Republic of Iran, the region's third largest producer of sheep and goat, registered the largest negative annual growth (-5.5 percent) during this time. The greatest annual growth in production was in two GCC countries: Bahrain (8.8 percent) and Oman (6.6 percent).

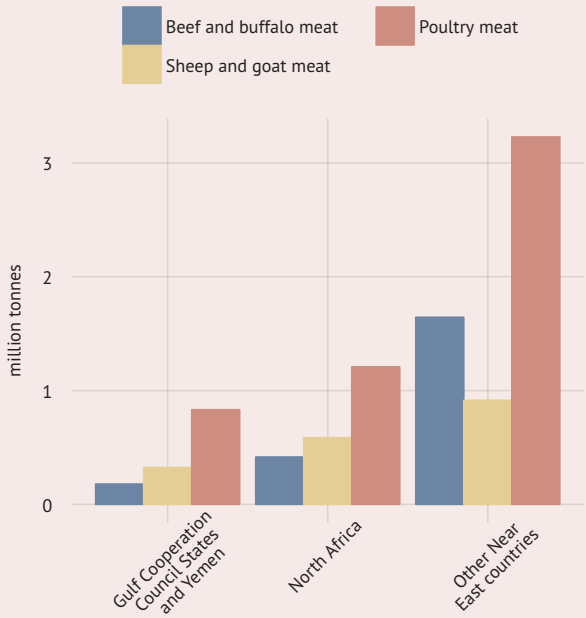
Poultry production in the region has increased by 4.9 percent annually between 2000 and 2011, which is slightly higher than the global average. Morocco, the region's third largest poultry producer (650 000 tonnes), led the way with annual growth of 7.8 percent. The Islamic Republic of Iran, the region's largest producer (1.7 million tonnes) also registered high annual production growth (6.9 percent).

CHART 70: **Near East and North Africa meat production (2000-2011)**



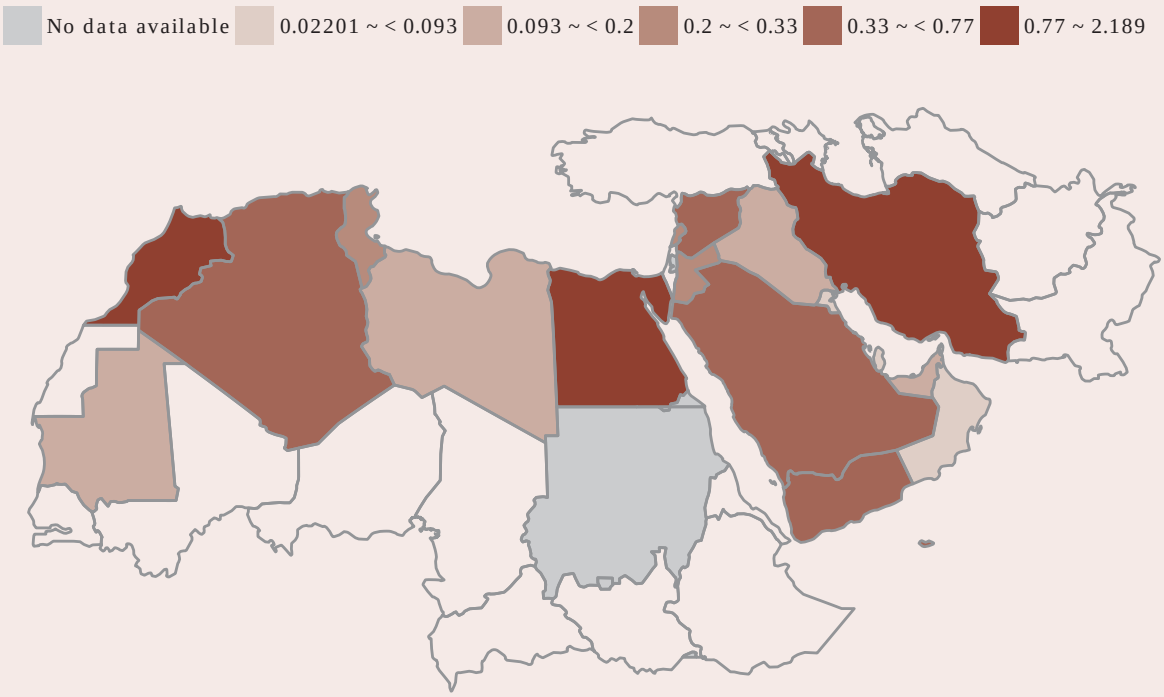
Source: FAO, Statistics Division (FAOSTAT).

CHART 71: **Meat production by type (2010)**



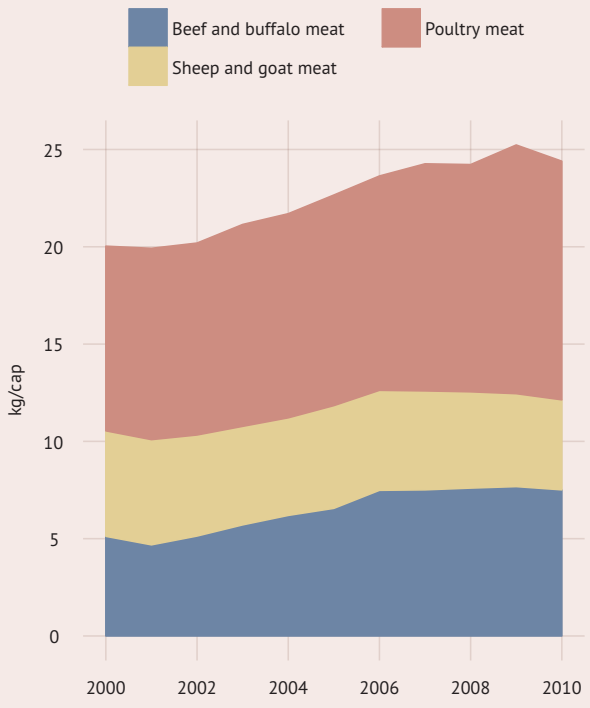
Source: FAO, Statistics Division (FAOSTAT).

MAP 45: **Meat producing countries (million tonnes, 2011)**



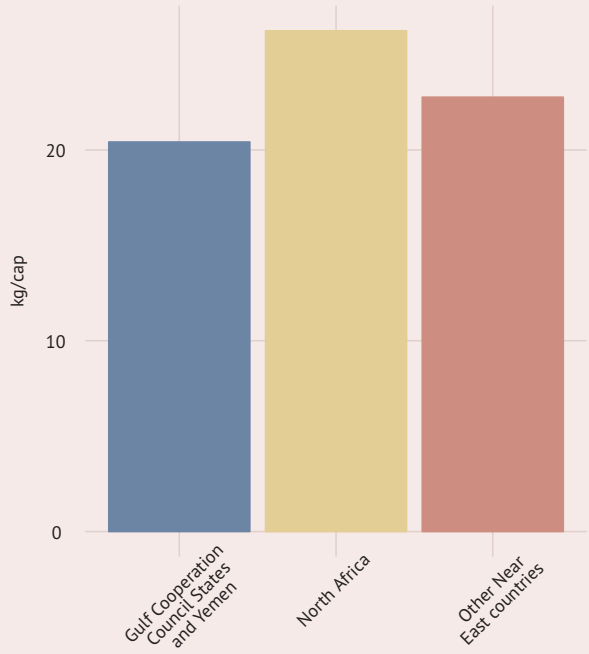
Source: FAO, Statistics Division (FAOSTAT).

CHART 72: **Near East and North Africa per capita meat production (2000-2010)**



Source: FAO, Statistics Division (FAOSTAT) and United Nations Population Division.

CHART 73: **Per capita total meat production (2010)**



Source: FAO, Statistics Division (FAOSTAT).

In 2011, the Near East and North Africa produced roughly 2.3 million tonnes of eggs, a very small share of the global total of roughly 70 million tonnes. Between 2000 and 2011, the region's annual growth in the egg production was around 3.2 percent, above the global average. The Islamic Republic of Iran is by far the region's largest egg producer (741 000 tonnes) and, between 2000 and 2011, registered the highest annual growth in production (7.3 percent). Every country in the region recorded production growth during this decade. In only two countries, Lebanon and Libya, was annual growth less than one percent.

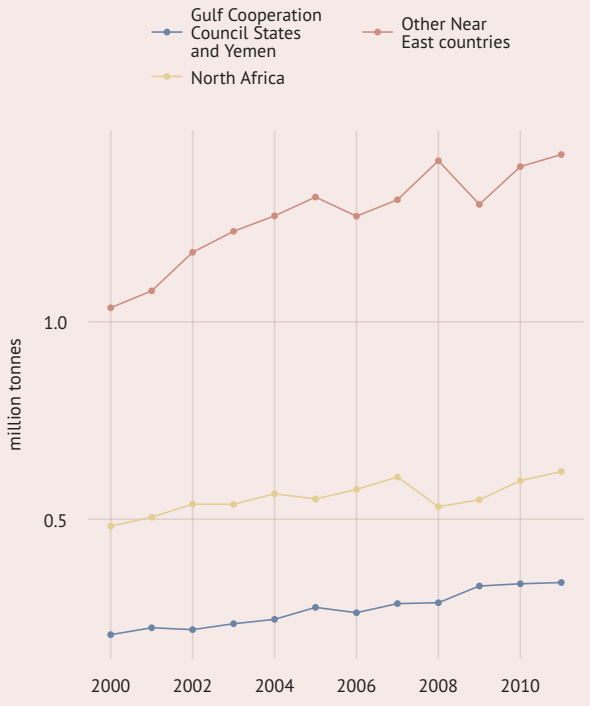
Figures from 2011 indicate that the region produced 30.4 million tonnes of milk, again a small share of the global total of 739 million tonnes. Annual growth in milk production in the region was 2.8 percent, which was equal to the global average. The region's largest producer was the Islamic Republic of Iran (7.3 million tonnes), followed by Egypt (5.8 million tonnes) and the former Sudan (4.3 million tonnes). Between 2000 and 2011, Saudi Arabia recorded the largest annual growth in production (6.7 percent) and Iraq the largest annual decline (-7.3 percent).

In 2011, the Islamic Republic of Iran also led the region in butter and ghee production (187 000 tonnes), followed by Egypt (127 000 tonnes). No other country in the region produced more than 20 000 tonnes. Egypt was the region's largest cheese producer (644 000 tonnes), followed by the Islamic Republic of Iran (255 000 tonnes).

Further reading

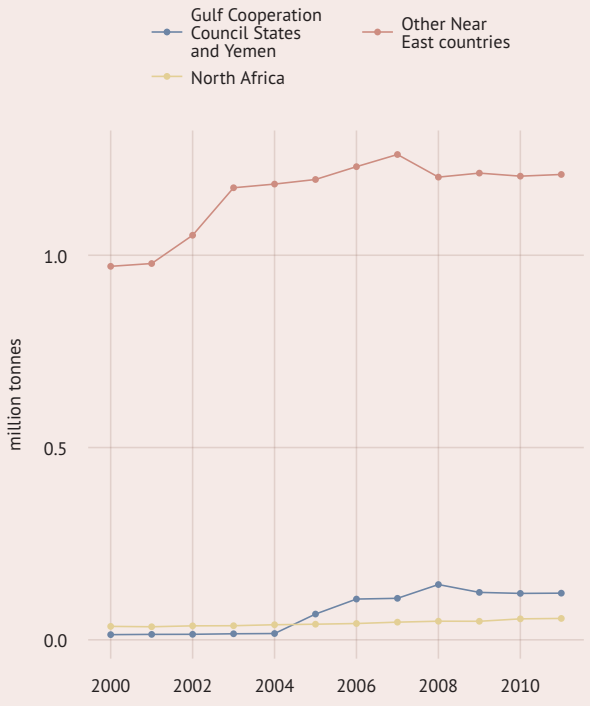
- FAO Animal Production and Health Division (www.fao.org/ag/portal/aga-index/en/)
- The State of Food and Agriculture 2009: Livestock in the balance (www.fao.org/publications/sofa-2009/en/)

CHART 74: **Egg production (2000-2011)**



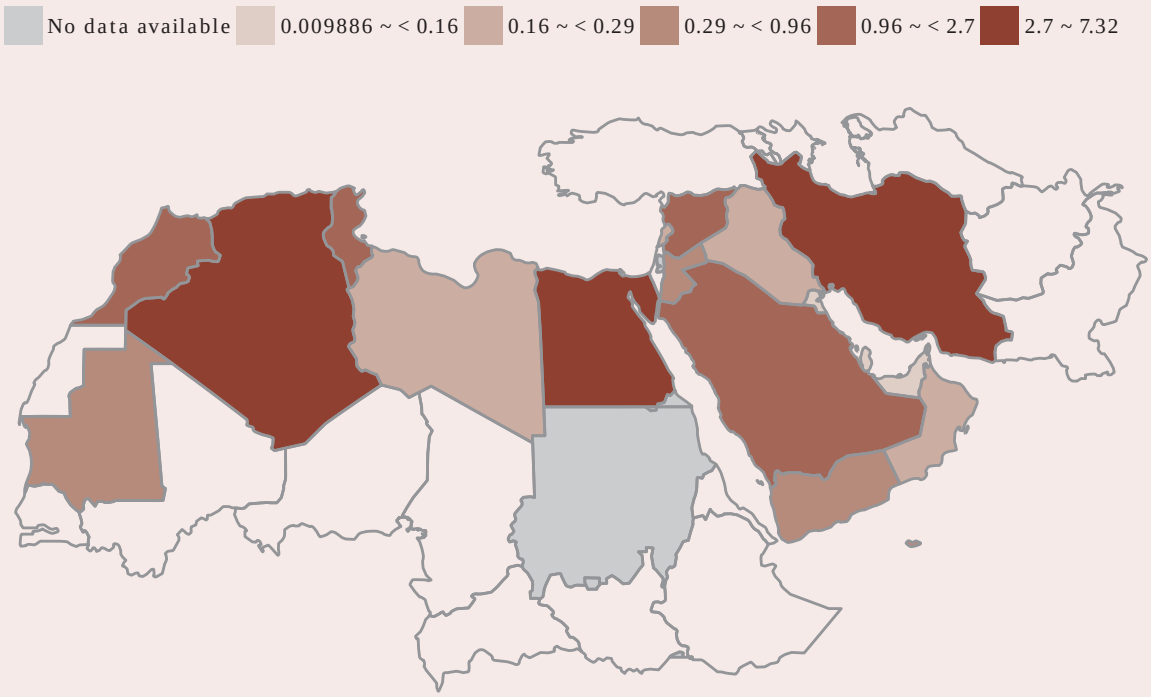
Source: FAO, Statistics Division (FAOSTAT).

CHART 75: **Cheese production (2000-2011)**



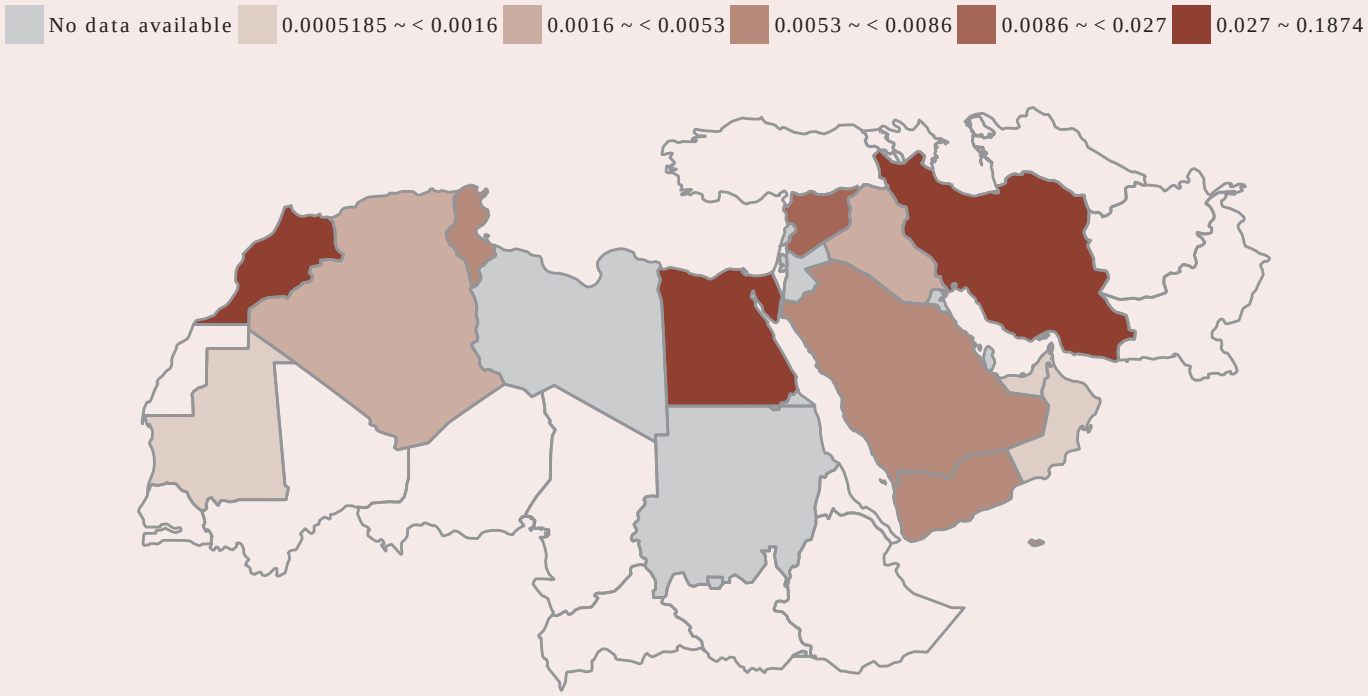
Source: FAO, Statistics Division (FAOSTAT).

MAP 46: **Milk production (million tonnes, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

MAP 47: **Butter and ghee production (million tonnes, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

Trends in the fisheries sector

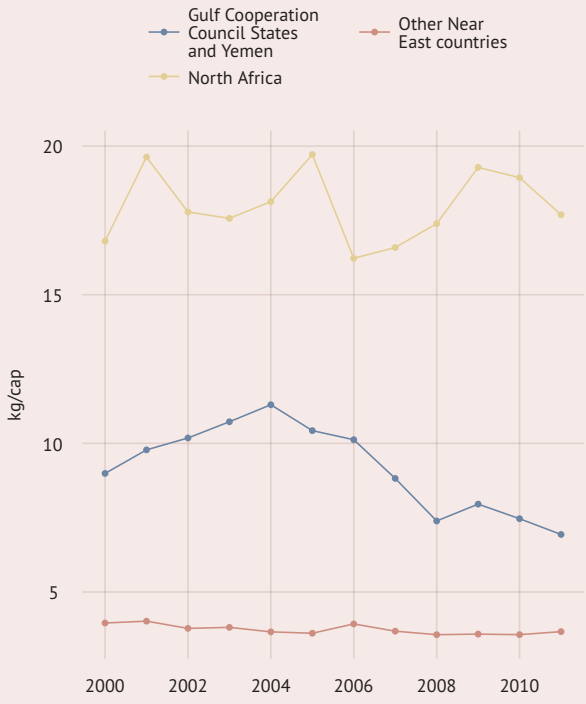
In 2010, capture fisheries and aquaculture supplied the world with 148 million tonnes of fish, crustaceans and molluscs. Although capture fisheries dominate world output, aquaculture accounts for a growing percentage of total fish supply, rising from a share of approximately 13 percent in 1990 to 40 percent in 2010.

Over the 2000–2010 decade, the production of capture fisheries fluctuated between 90 and 95 million tonnes per annum, with more than half of the global catch coming from the Pacific Ocean. Global production is typically influenced by variations in catches of anchoveta (Peruvian anchovy) – a species extremely susceptible to oceanographic conditions determined by El Niño Southern Oscillation – in the Southeast Pacific. Fluctuations in other species and regions tend to compensate for each other to a large extent.

Major marine stocks are shrinking rapidly. The proportion of stocks estimated to be under- or moderately exploited declined from 40 percent in the mid-1970s to 12 percent in 2009. In contrast, the proportion of overexploited, depleted or recovering stocks increased from 10 percent in 1974 to 30 percent in 2009. The proportion of fully exploited stocks has remained relatively stable at about 50 to 60 percent since the 1970s. As a whole, these figures indicate that global marine capture production is unlikely to increase, unless effective management plans are put in place to rebuild overfished stocks.

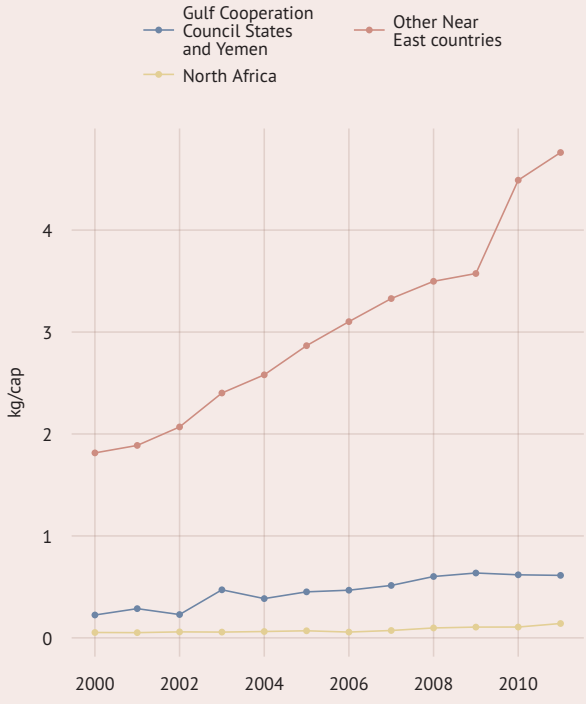
In recent years, inland water fishery production has expanded to over 10 million tonnes, accounting for more than 10 percent of global capture production. However, the state of inland fishery resources and the ecosystems that support them is not generally well known, and the reliability of data on inland water catches reported by several countries remains questionable. There is a growing appreciation of the need to improve inland fishery statistics.

CHART 76: **Capture fish production, per capita (2000-2011)**



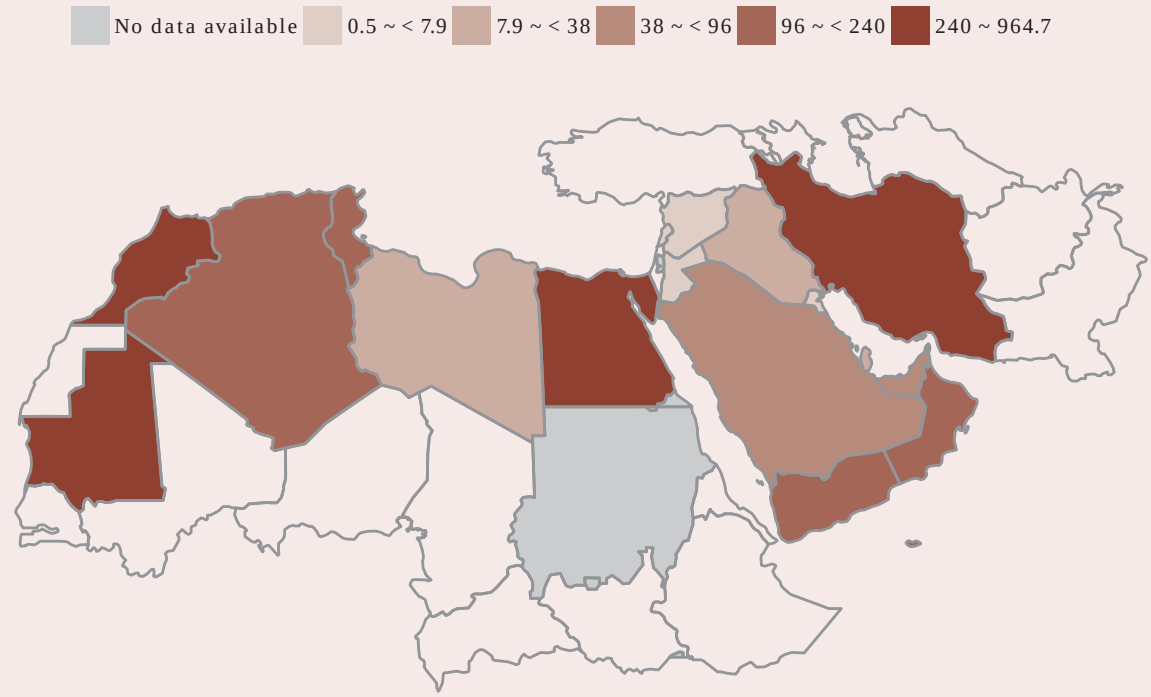
Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics) and United Nations Population Division.

CHART 77: **Aquaculture fish production, per capita (2000-2011)**



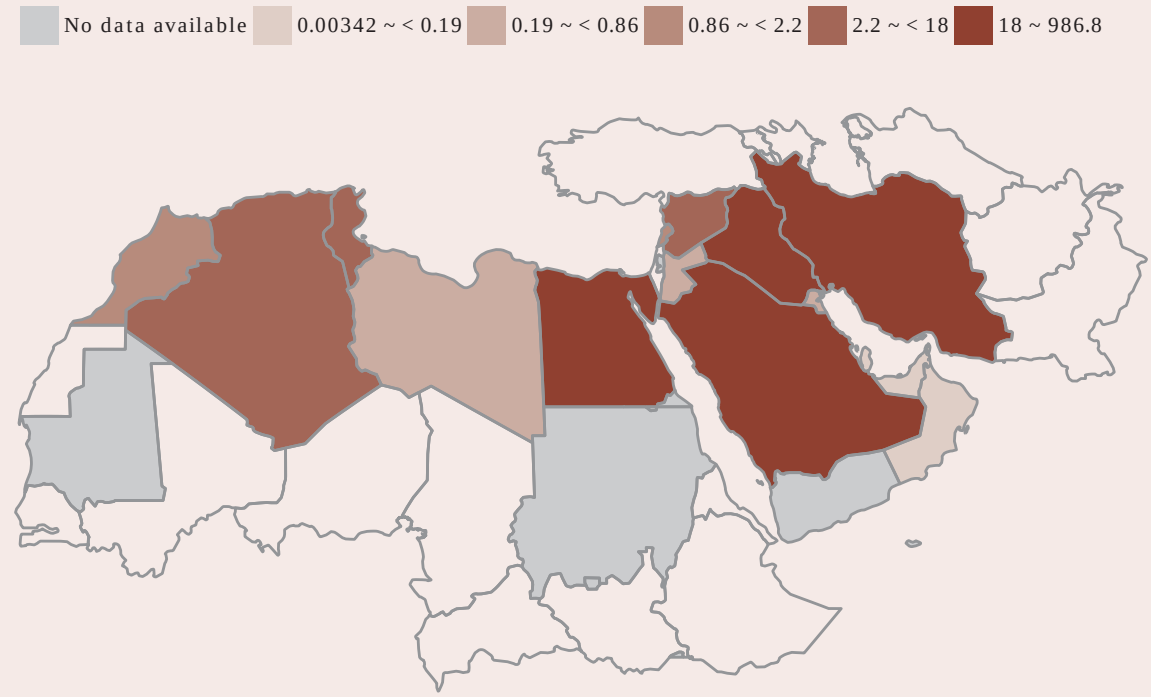
Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics) and United Nations Population Division.

MAP 48: **Capture fish producing countries (thousand tonnes, 2010-2011)**



Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics).

MAP 49: **Aquaculture producing countries (thousand tonnes, 2010-2011)**



Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics).

Aquaculture represents the fastest-growing, animal-based food production sector, with 60 million tonnes of production in 2010; aquaculture growth continues to outpace population growth. In quantity terms, aquaculture production has been dominated by species that feed low on the food chain in their natural habitats, such as carp, characins and tilapias. Aquaculture also provides dominant shares of the total production of several high-priced species such as salmon, shrimp, prawns, eels, oysters and scallops. The share of aquaculture products in international trade is increasing, not only for high-priced products but also for a broad range of other species.

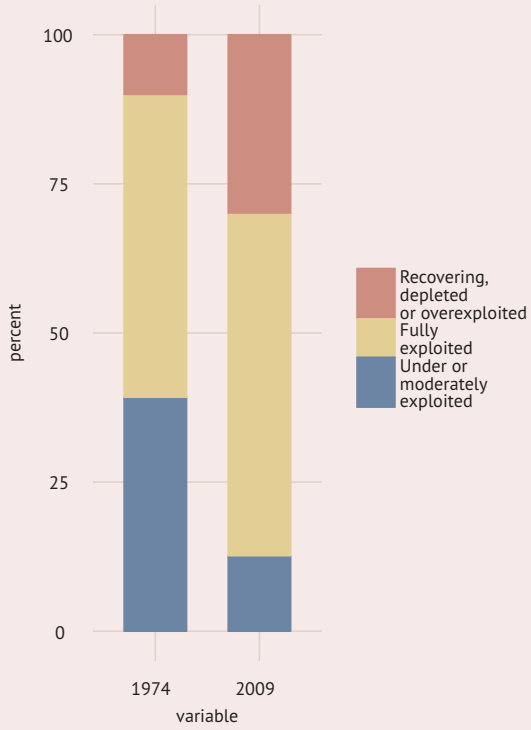
In 2011, the Near East and North Africa accounted for over 3 million tonnes of the global production of 94 million tonnes. Between 2000 and 2011, growth in the capture fisheries sector (2.2 percent) in the region was much higher than the global average of 0.6 percent. Morocco was by far the region's largest fish producer (965 thousand tonnes) in 2011. Almost all of the country's production came from marine capture fisheries. Mauritania registered the largest annual growth in capture fisheries production (11.3 percent), followed by Qatar (5.6 percent). In both countries, marine capture fisheries dominated production. In 2011, Egypt was the only country in the region with significant production from inland capture fisheries (253 000 tonnes).

The region produced 1.3 million tonnes of fish through aquaculture in 2011. Annual growth in aquaculture production between 2000 and 2011 was 11.9 percent, considerably higher than the global average of 7.2 percent. Egypt accounts for more than two-thirds of the region's production (986 000 tonnes) and showed strong annual production growth (10.2 percent) between 2000 and 2011. Iraq registered by far the highest annual production growth (25 percent) in the region, followed by Algeria , the region's second largest producer, (18.4 percent) and the Islamic Republic of Iran (17.9 percent). Inland aquaculture accounts for almost all aquaculture production in the region. Tunisia, which recorded annual growth in aquaculture production of 16.2 percent, is the only country in the region where marine aquaculture production (7 200 tonnes) was higher than inland aquaculture.

Further reading

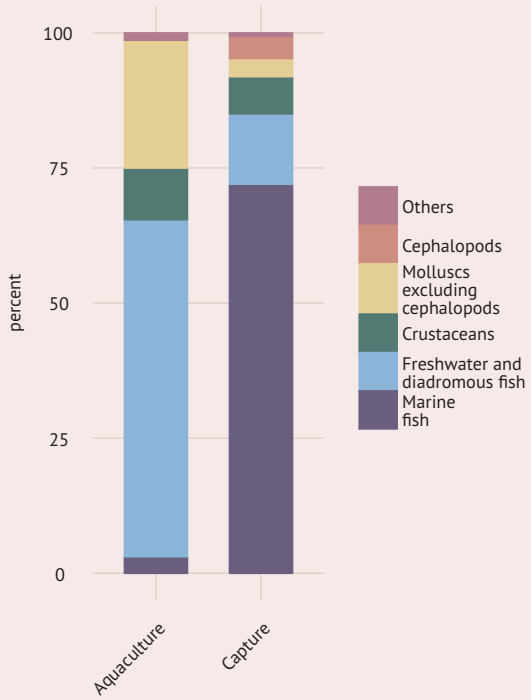
- FAO The State of World Fisheries and Aquaculture (SOFIA) (www.fao.org/fishery/sofia/en)
- FAO Fisheries and Aquaculture Department (www.fao.org/fishery/en)

CHART 78: **State of the world's fishery stocks (1974-2010)**



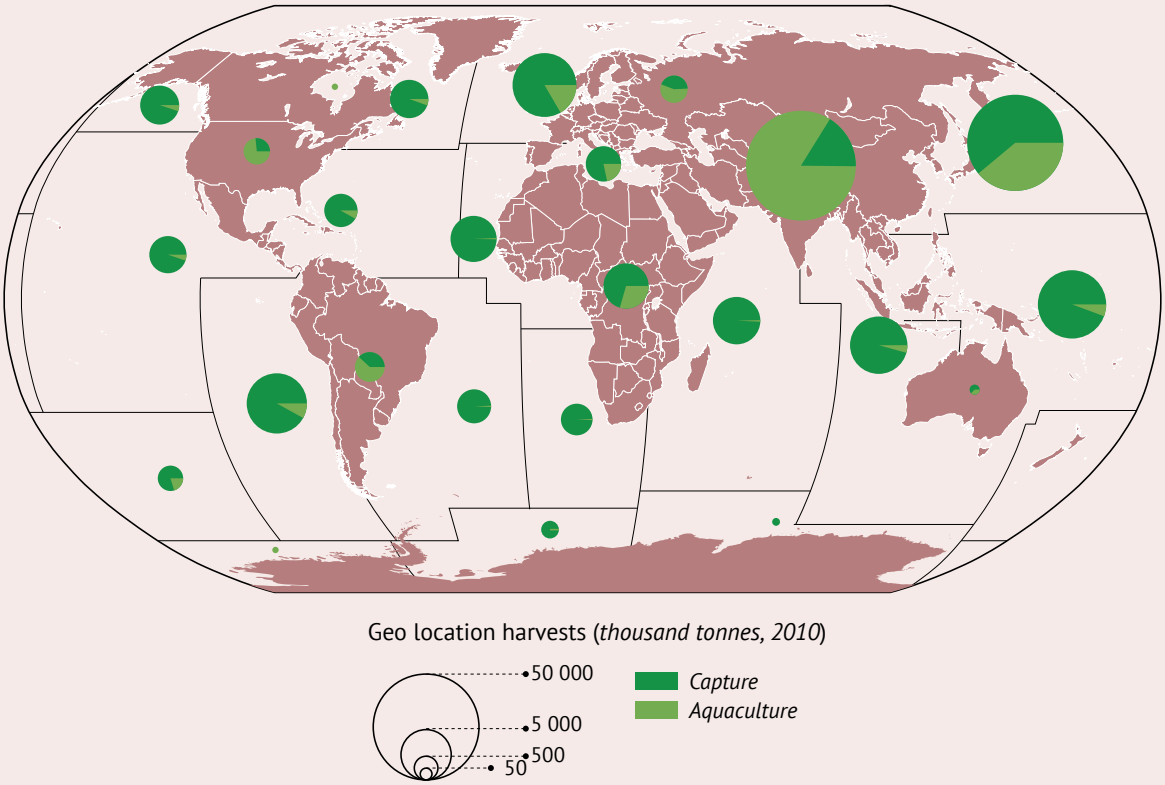
Source: FAO, Fisheries and Aquaculture Department (fishery and aquaculture statistics).

CHART 79: **World composition of fish products (2010)**



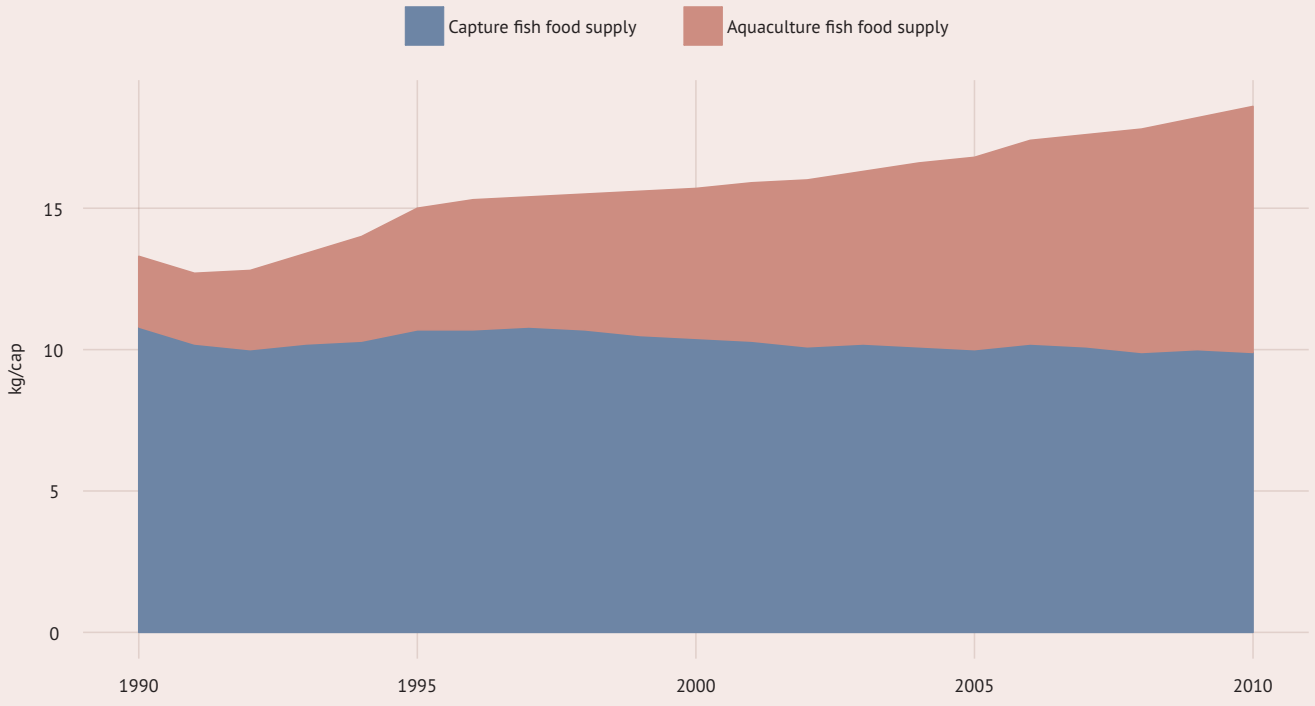
Source: FAO, Fisheries and Aquaculture Department (fishery and aquaculture statistics).

MAP 50: **Geo-location of harvests by capture and aquaculture (thousand tonnes, 2010)**



Source: FAO, Fisheries and Aquaculture Department (fishery and aquaculture statistics).

CHART 80: **Per capita world fish food supply (1990-2011)**



Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics) and United Nations Population Division.

Trends in agricultural trade

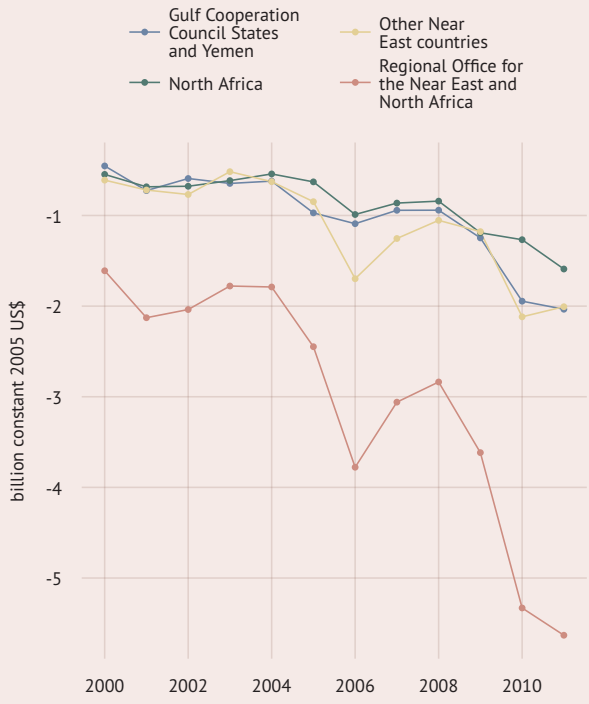
Due to the region's climate, the Near East and North Africa is a net food importer. Some countries in the region lead the world in terms of food import dependency. Most countries import at least 50 percent of the food calories they consume, with the GCC countries importing 90 percent of their food needs. Forecasting models predict that the demand for food will grow at a faster rate than production, leading to an even greater dependence on world grain markets, which are becoming increasingly unpredictable.

The value and volume of agricultural imports in the region is increasing as the population increases. The agricultural imports increased from 22.9 billion in the year 1990 to US$ 90 billion by the year 2010. The region's share of the world's total agricultural imports ranged from 6 to 8 percent between 2000 and 2010. The actual gap between the region's imports of agricultural produce and its exports nearly tripled during this period when it stood at over US$ 67 billion.

However, when the agricultural imports are compared to the total merchandise import trade, they amount to 13.1 percent in 2010 down from 16.3 percent in 2001. Thus while both the agricultural imports and the total merchandise imports are increasing with time, the non-agricultural imports are increasing faster than the agricultural imports thus pointing to better economic conditions and an increase in affluence in the region.

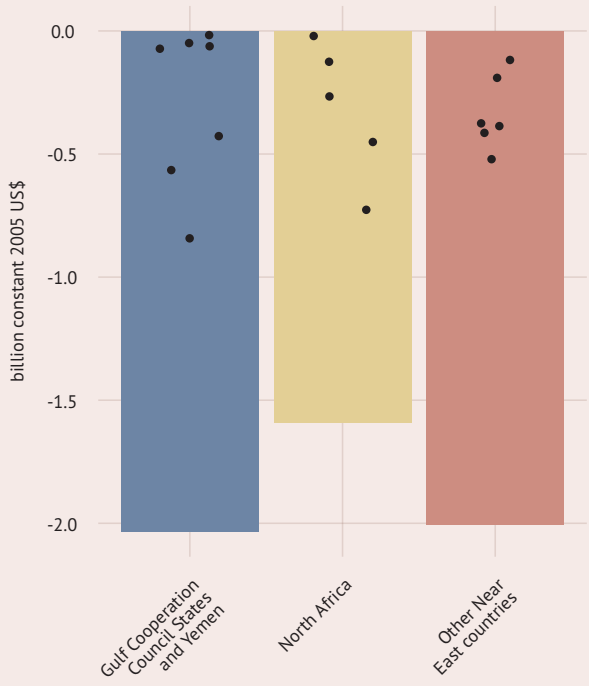
Access of farmers to international markets remains one of the major pathways out of poverty for rural poor. Agricultural exports in the region still represent a limited but growing share of the region's total exports. The region exports a low volume of agricultural produce, about 2 percent share of the total world agricultural exports. The major agricultural exports of the region include fruit, vegetables, olive oil and pulses. In last decade, the region has lost ground in several of its traditional agricultural markets, including in cotton and citruses but this overall performance, conceals considerable variation among individual countries and sub-regions. Most of the countries derive a substantial share of their merchandise exports from only a few categories. On average, the top three agricultural commodity exports account for more than 50 percent for several countries in the region.

CHART 81: **Sugar and honey net trade (2000-2011)**



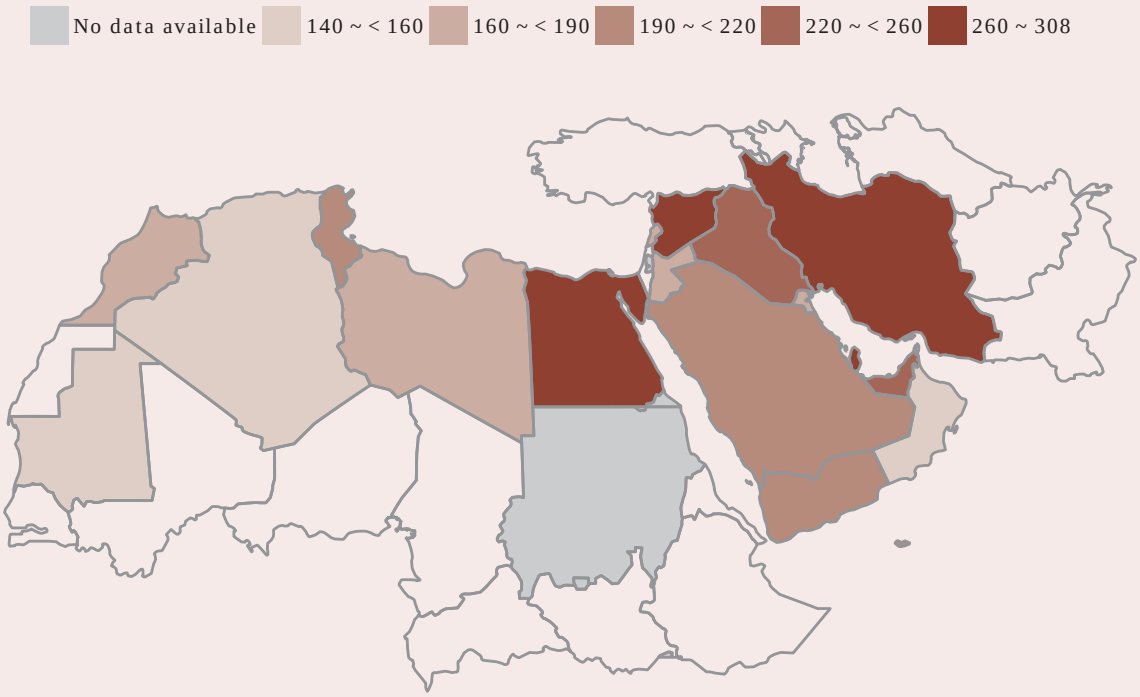
Source: FAO, Statistics Division (FAOSTAT) and World Bank.

CHART 82: **Sugar and honey net trade (2010)**



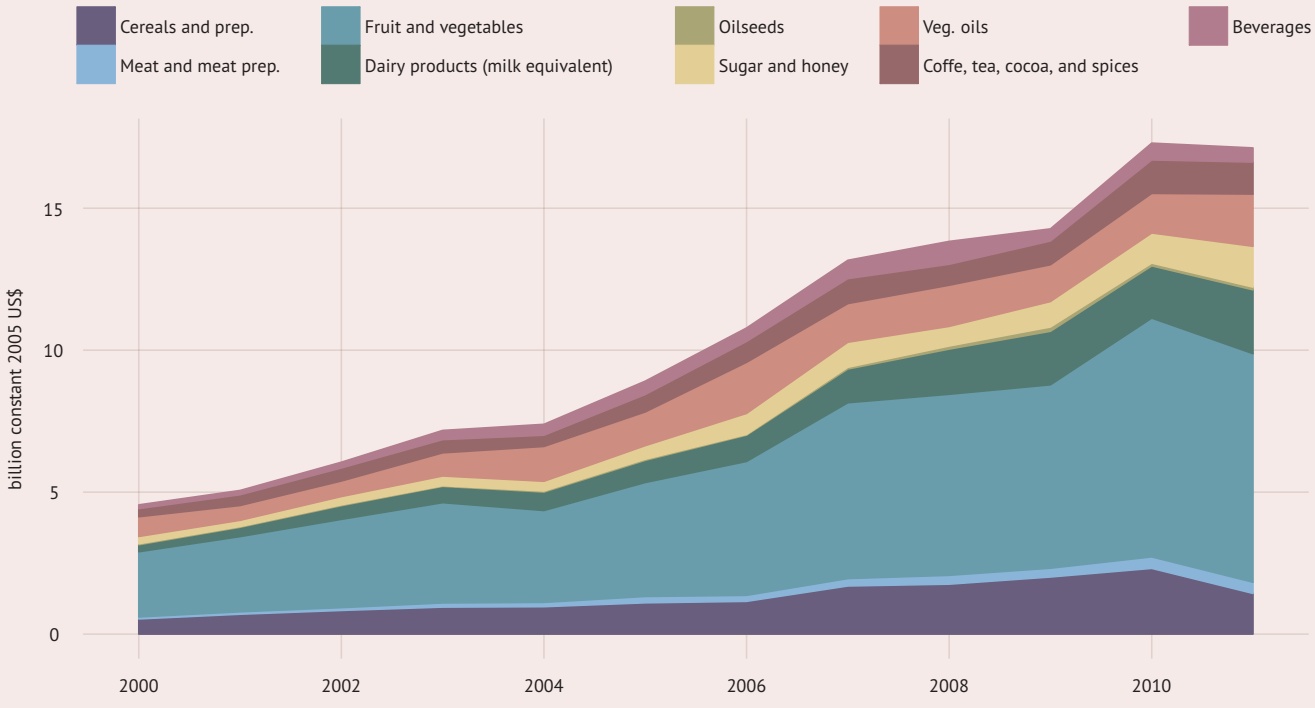
Source: FAO, Statistics Division (FAOSTAT) and World Bank.

MAP 51: **Import value index (index, 2010)**



Source: FAO, Statistics Division (FAOSTAT).

CHART 83: **Near East and North Africa composition of global exports (2000-2011)**

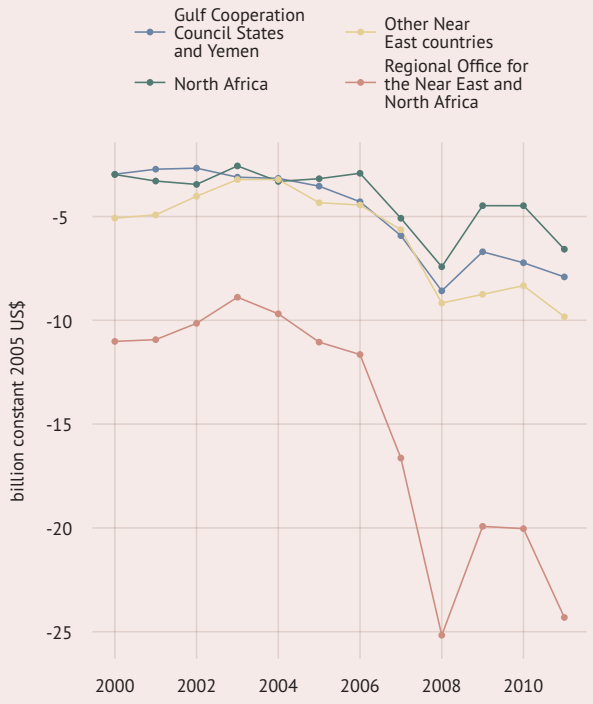


Source: FAO, Statistics Division (FAOSTAT) and World Bank.

The degree of economic integration in the Near East and North Africa remains extremely low. This is partly due to the absence of incentives, ongoing trade barriers and the performance of some sectors. Other causes include the relatively limited diversification of production and exports and the lack of complementarities between agricultural sectors. Although many trade and investment cooperation agreements have been adopted and implemented in the region, the share of intra-regional agricultural trade in total agricultural trade has remained below 15 percent and is concentrated in relatively few countries. Intra-regional agricultural trade is also concentrated in a narrow range of items. For the last 20 years, live animals, meat, fish and fish products were predominantly directed to regional markets, while vegetables, fruit and agricultural raw materials such as cotton have been largely directed to extra-regional markets.

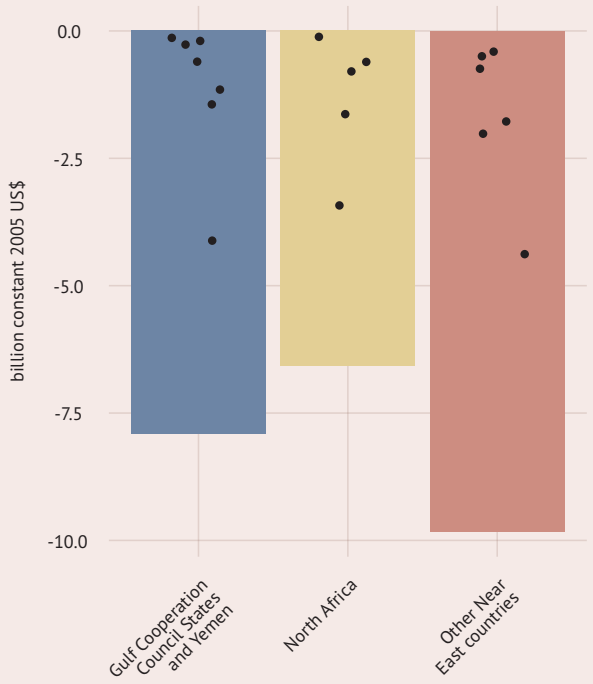
Countries in the Near East and North Africa have significant comparative advantages in exports of high value added products to markets in the European Union and with other countries in the region. However, to really tackle such new markets several issues have to be addressed, including: the fragmented landholding; the insufficient incentives or disincentives to private investments and to exports; the weak linkage between R&D institutions and farmers; the need for vocational training for sustainable crop and animal production and care at the level of primary and secondary education (with a special attention paid to the training of women in rural areas); the weak linkage between the small growers and the international market, often due to the weak institutional framework; and missing elements in public or private infrastructure.

CHART 84: **Cereal net trade (2000-2011)**



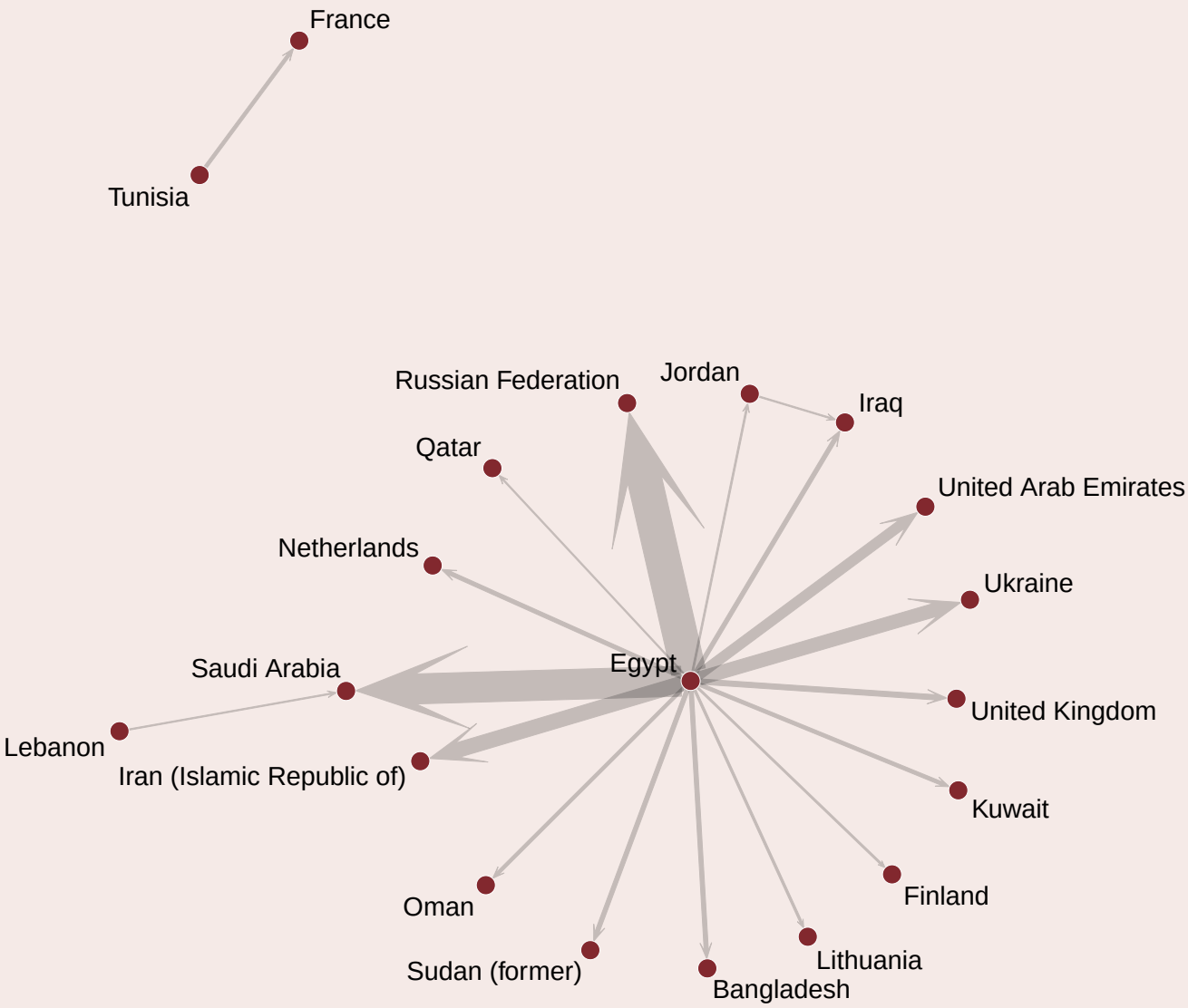
Source: FAO, Statistics Division (FAOSTAT) and World Bank.

CHART 85: **Cereal net trade (2010)**



Source: FAO, Statistics Division (FAOSTAT) and World Bank.

CHART 86: **Major export flows of oranges from Near East and North African countries (US$, 2011)**



Ten largest export flows of oranges

Exporting country	Importing country	Million US$
Egypt	Russian Federation	123.23
Egypt	Saudi Arabia	107.53
Egypt	Iran (Islamic Republic of)	52.45
Egypt	Ukraine	47.58
Egypt	United Arab Emirates	35.18
Egypt	United Kingdom	18.65
Egypt	Sudan (former)	15.22
Egypt	Bangladesh	15.12
Egypt	Iraq	14.6
Egypt	Netherlands	13.84

Source: FAO, Statistics Division (FAOSTAT).

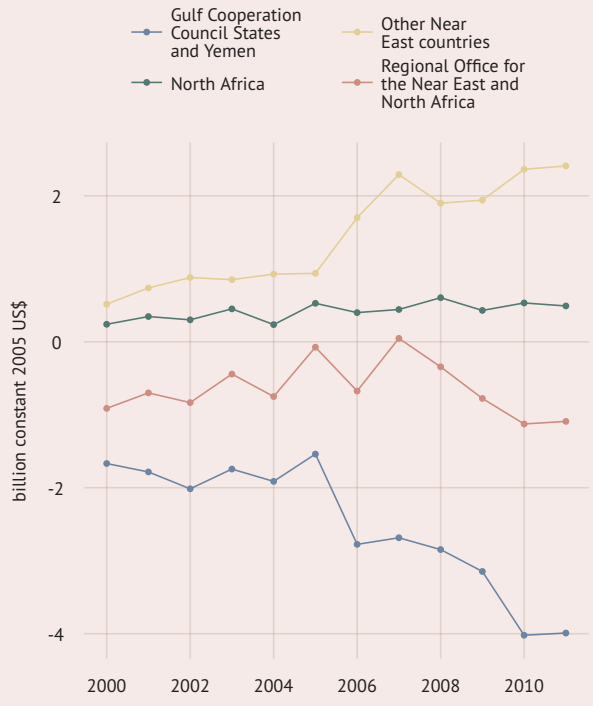
The flows cover ninety percent of the exports of oranges from Near East and North African countries.

Out of the total agricultural imports, cereals comprise 25 percent, which is not surprising given that these are the region's staple food crops. In 2011, cereal exports from the Near East and North Africa declined by almost two-thirds from the previous year, falling from 3.4 million tonnes to only 1.1 million tonnes. This is less than the volume of cereal exports in 2000. Cereal exports from Saudi Arabia, which was the region's largest cereal exporter in 2010 plummeted from roughly 1.5 million tonnes to 149 000 tonnes. In 2011, Egypt became the region's largest cereal exporter (218 tonnes) despite a drop of nearly 500 000 tonnes from 2010. Tunisia recorded the greatest increase in exports moving from 12 000 tonnes to 185 000 tonnes, but this was still considerably less than the country's cereal export volume for 2000.

At 201 000 tonnes, oilseed exports in 2011 were far lower than 10 years earlier (339 000 tonnes), while imports had increased from 1.7 million tonnes in 2000 to over 4.9 million. The former Sudan, the largest oils seed producer saw its exports fall by more than 50 percent to 114 000 tonnes. The region's largest importer of oilseeds was Egypt (1.2 million tonnnes).

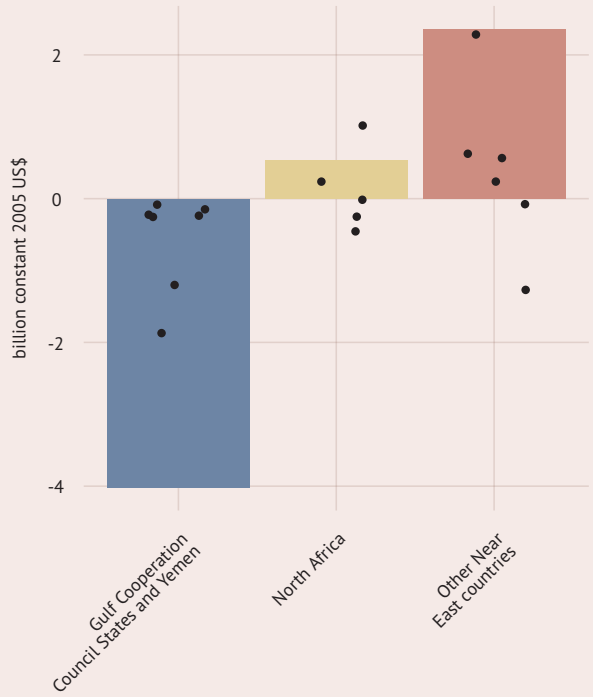
In 2011, sugar and honey exports from the region (2.1 million tonnes) showed a substantial increase over export volumes from 2000, with the United Arab Emirates being the highest exporter (543 000 tonnes), followed by Egypt (442 000 tonnes) and Saudi Arabia (397 000 tonnes). Despite the increase, the sugar trade deficit grew during the decade as imports increased even more, from 6.9 million tonnes in 2000 to over 12 million tonnes in 2010. The United Arab Emirates were also the region's largest sugar importer (1.9 million tonnes), followed by Algeria (1.6 million tonnes) and Saudi Arabia (1.3 million tonnes).

CHART 87: **Fruit and vegetables net trade (2000-2011)**



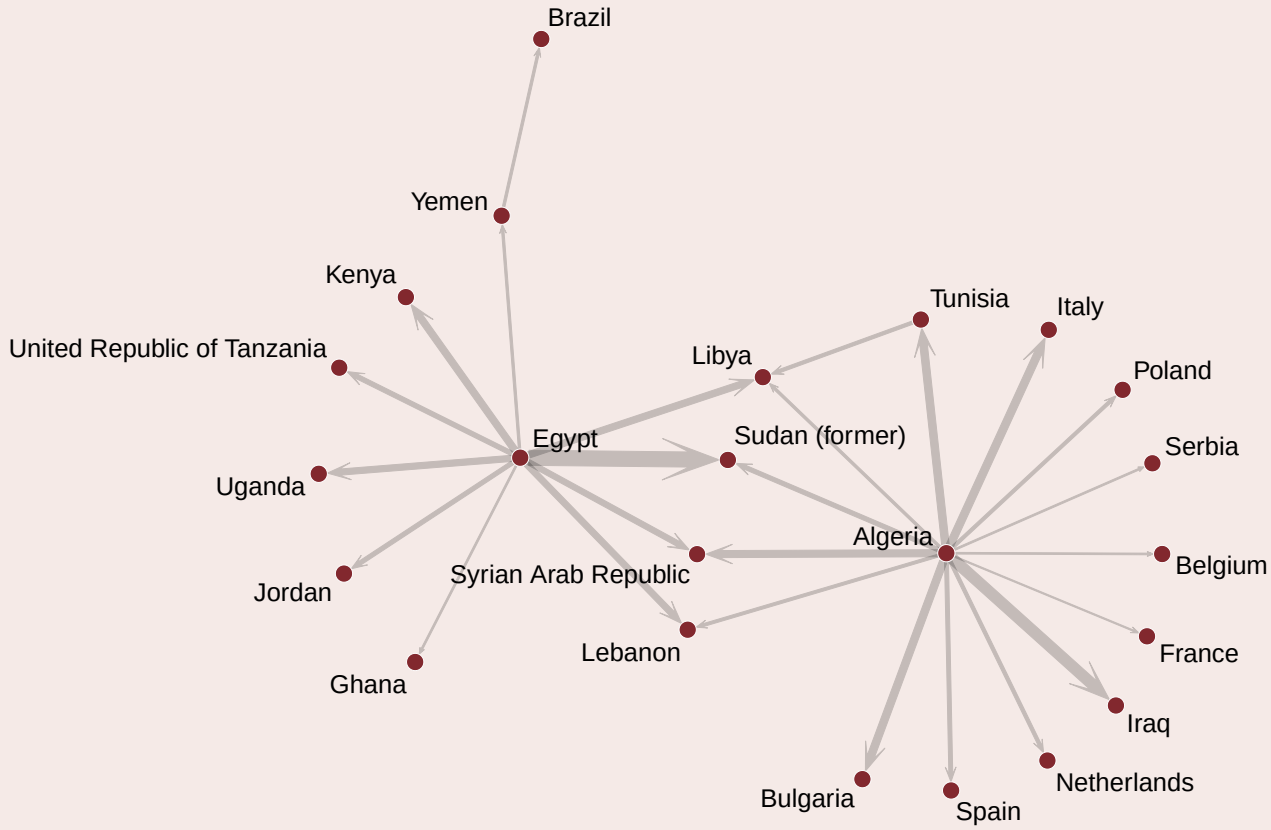
Source: FAO, Statistics Division (FAOSTAT) and World Bank.

CHART 88: **Fruit and vegetables net trade (2010)**



Source: FAO, Statistics Division (FAOSTAT) and World Bank.

CHART 89: **Major export flows of sugar refined from Near East and North African countries (US$, 2011)**



Ten largest export flows of sugar refined

Exporting country	Importing country	Million US$
Egypt	Sudan (former)	57.76
Algeria	Iraq	41.16
Algeria	Italy	29.31
Algeria	Tunisia	28.81
Algeria	Bulgaria	28.71
Algeria	Syrian Arab Republic	27
Egypt	Kenya	25.64
Egypt	Libya	24.64
Egypt	Uganda	23.65
Egypt	Lebanon	23.14

Source: FAO, Statistics Division (FAOSTAT).

The flows cover ninety percent of the exports of sugar refined from Near East and North African countries.

In many emerging economies, agriculture has been gradually moving towards increased commercialization of high-value foods, such as poultry, pork and fish, as demand for these products has increased around the world. The Near East and North Africa region is no exception in this regard.

Despite the importance of livestock in the region, the region is net importer of meat products. The region exported 213 000 tonnes of meat in 2011, up from only 49 000 tonnes in 2000. In 2011, Saudi Arabia is the region's leading meat exporter (60 000 tonnes) followed by Jordan (51 000 tonnes) and United Arab Emirates (31 000 tonnes). Meat imports have increased from 1.2 million tonnes in 2000 to 3.2 million in 2011. Saudi Arabia was by far the region's largest meat importer (990 000 tonnes), importing more than twice as much as the next largest importer, the United Arab Emirates (415 000 tonnes).

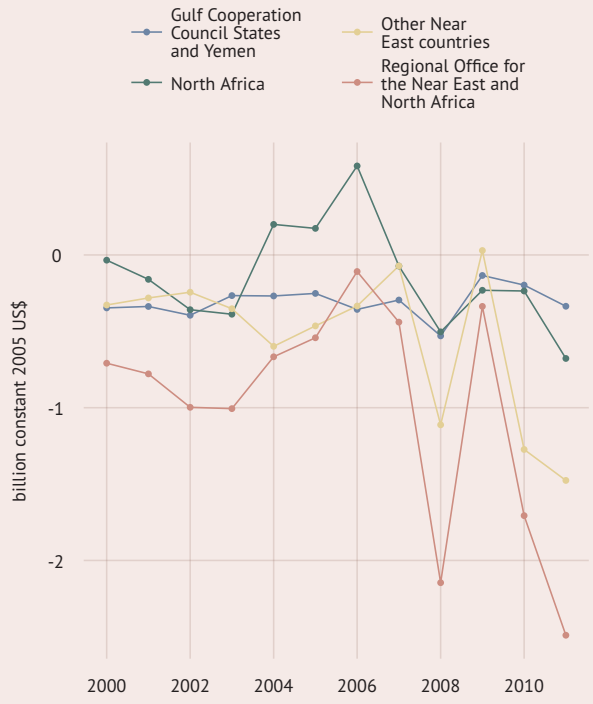
The region saw tremendous growth in its dairy exports, which rose from 541 000 tonnes in 2000 to 4.5 million tonnes in 2011. The region now exports only slightly less dairy products than Latin America and the Caribbean. Saudi Arabia is the largest dairy product exporter in the region, accounting for nearly half of the region's exports. It is also the region's second largest importer of dairy products. Algeria, which exports almost no dairy products, is the region's largest importer. Tunisia imports the least volume of dairy products (79 000 tonnes) in the region.

In 2011 the volume of fish exports from the region was 2.7 million tonnes. Morocco accounts for well over half of the region's fish exports (1.5 million tonnes). Yemen is a distant second at 263 000 tonnes. The volume of fish imports has steadily increased since 2000, reaching 2 million tonnes in 2010. Egypt was the region's leading importer (531 000 tonnes), followed by Saudi Arabia (487 000 tonnes) and the United Arab Emirates (441 000 tonnes). Mauritania imported the least volume of fish products (1 000 tonnes).

Further reading

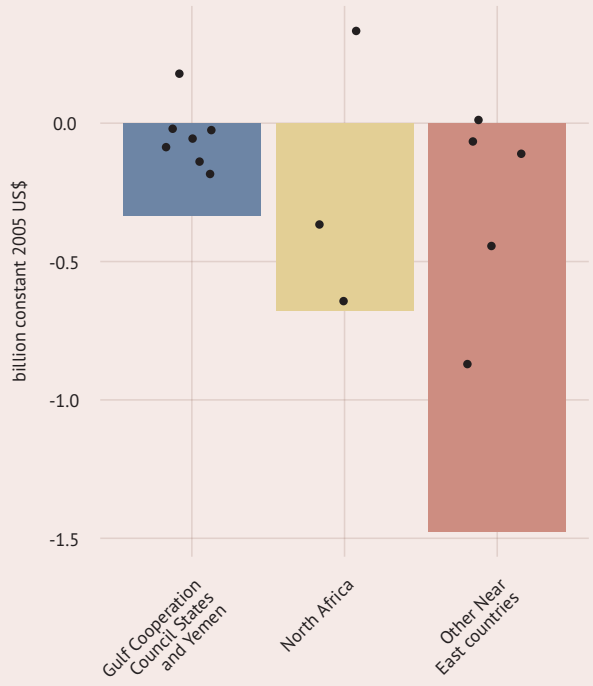
- FAO Trade and Markets Division (www.fao.org/economic/est/)
- FAO Food Outlook (www.fao.org/giews/english/fo/index.htm)

CHART 90: **Animal fats, oilseeds and veg. oils net trade (2000-2011)**



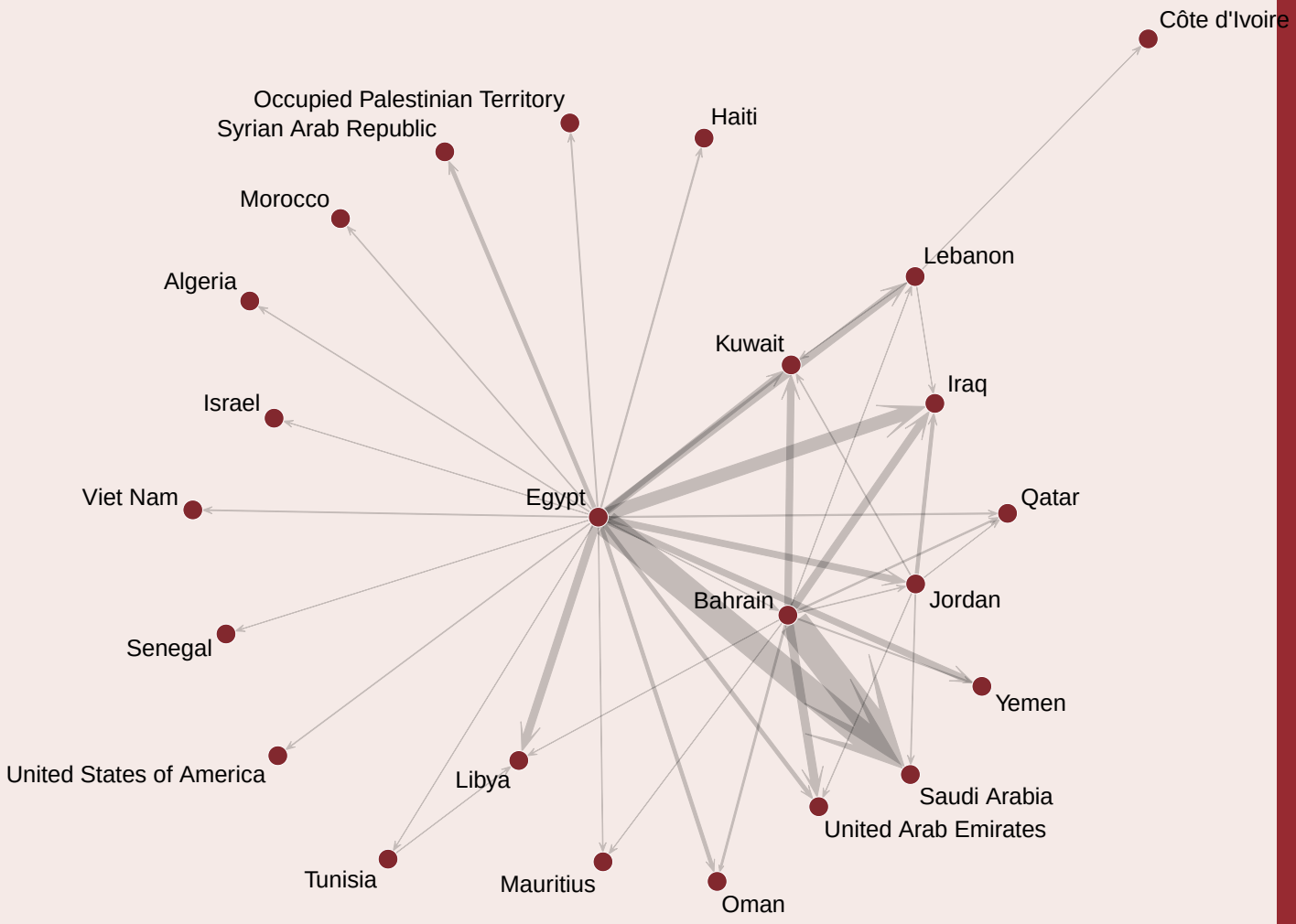
Source: FAO, Statistics Division (FAOSTAT) and World Bank.

CHART 91: **Animal fats, oilseeds and veg. oils net trade (2010)**



Source: FAO, Statistics Division (FAOSTAT) and World Bank.

MAP 52: **Major export flows of cheese from whole cow milk from Near East and North African countries (US$, 2011)**



Ten largest export flows of cheese

Exporting country	Importing country	Million US$
Bahrain	Saudi Arabia	86.98
Egypt	Saudi Arabia	76.23
Egypt	Iraq	36.36
Bahrain	United Arab Emirates	23.1
Egypt	Libya	21.75
Bahrain	Iraq	21.62
Egypt	Lebanon	20.59
Bahrain	Kuwait	19.41
Egypt	Jordan	17.95
Egypt	Yemen	17.35

Source: FAO, Statistics Division (FAOSTAT).

The flows cover ninety-nine percent of the exports of cheese from whole cow milk from Near East and North African countries.

TABLE 20: **Cereal producers and their productivity**

	Cereals							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha	percent	thousand hg/ha	percent	thousand tonnes	thousand tonnes	percent	percent
	2011	2000-11	2011	2000-11	2010	2011	1990-2000	2000-11
Regional office for the Near East and North Africa	38 552	2.3	19.4	10.3	70 083	74 896	1.1	5.4
Gulf Cooperation Council States and Yemen	1 104	0.0	23.6	19.7	2 921	2 602	−5.0	2.8
Bahrain								
Kuwait	2	6.7	86.5	12.7	21	21	4.5	20.2
Oman	4	2.0	102.7	10.4	32	43	8.3	12.7
Qatar	0	−15.4	60.5	3.6	3	2	8.7	−12.3
Saudi Arabia	297	−6.4	53.4	3.9	1 722	1 587	−6.3	−2.8
United Arab Emirates	2	37.2	733.3	24.6	130	133	−18.7	71.0
Yemen	799	2.3	10.2	−0.5	1 013	817	−1.3	1.8
North Africa	9 845	2.4	15.5	6.7	13 440	15 237	−6.9	12.6
Algeria	2 585	8.5	14.4	4.6	4 002	3 728	−5.4	13.4
Libya	365	0.5	7.5	1.4	218	275	−2.0	2.0
Mauritania	145	−3.2	13.9	4.4	276	202	5.7	1.1
Morocco	5 382	−0.1	16.1	14.4	7 834	8 689	−10.8	14.3
Tunisia	1 368	1.7	17.1	5.2	1 109	2 342	−3.9	7.0
Other Near East Countries	27 602	2.3	20.7	2.3	53 722	57 058	2.3	3.7
Egypt	3 038	0.9	72.5	−0.0	19 451	22 015	4.4	0.8
Iran (Islamic Republic of)	9 234	2.5	21.8	1.6	22 247	20 105	−0.6	4.1
Iraq	2 374	−0.4	18.0	15.7	4 362	4 270	−12.5	15.2
Jordan	102	10.8	8.1	−6.6	87	83	−7.8	3.5
Lebanon	50	−0.2	31.8	2.5	112	159	4.7	2.4
Sudan								
Sudan (former)	9 929	4.0	5.6	1.0	3 562	5 598	6.5	5.0
Syrian Arab Republic	2 875	−0.6	16.8	3.5	3 901	4 828	1.3	2.9
Regional Office for Africa	98 311	2.8	12.9	1.5	130 260	126 825	2.3	4.2
Regional Office for Asia and the Pacific	375 106	0.5	36.4	2.1	1 268 915	1 365 850	1.5	2.5
Regional Office for Europe and Central Asia	151 096	0.0	36.0	2.9	466 580	543 367		2.4
Regional Office for Latin America and the Caribbean	50 742	0.7	38.0	2.5	193 900	193 029	3.7	3.5
World	707 328	0.6	36.6	5.0	2 474 122	2 589 143		2.4

TABLE 21: **Coarse grain producers and their productivity**

	Coarse grains							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha	percent	thousand hg/ha	percent	thousand tonnes	thousand tonnes	percent	percent
	2011	2000-11	2011	2000-11	2010	2011	1990-2000	2000-11
Regional office for the Near East and North Africa	19 837	1.1	12.9	5.7	25 377	25 687	1.1	2.2
Gulf Cooperation Council States and Yemen	793	0.5	14.7	11.9	1 352	1 166	−2.1	0.3
Bahrain								
Kuwait	2	2.6	113.2	18.0	20	20	3.3	21.1
Oman	3	0.5	115.5	13.0	29	40	9.8	13.6
Qatar	0	−16.4	62.0	4.3	3	2	11.1	−12.8
Saudi Arabia	112	−7.1	34.6	4.8	422	387	−3.7	−2.7
United Arab Emirates	2		735.1		130	133		
Yemen	674	1.8	8.7	−1.1	748	584	−1.4	0.7
North Africa	4 127	2.0	11.4	3.0	4 843	4 710	−10.0	7.7
Algeria	912	4.9	12.9	1.6	1 397	1 173	−14.9	6.6
Libya	215	1.4	5.1	0.2	112	109	−3.9	1.6
Mauritania	112	−4.7	3.4	−0.5	139	38	7.3	−5.2
Morocco	2 292	−0.6	11.6	8.5	2 908	2 654	−14.0	7.8
Tunisia	596	8.9	12.4	1.4	287	737	−6.7	10.4
Other Near East Countries	14 917	0.9	13.3	1.2	19 183	19 811	2.2	1.0
Egypt	1 160	0.8	68.4	0.3	7 944	7 933	3.0	1.1
Iran (Islamic Republic of)	1 689	0.1	25.5	2.0	5 734	4 305	−2.7	2.1
Iraq	872	−4.0	14.1	8.8	1 458	1 226	−13.8	4.5
Jordan	88	15.3	7.2	−6.0	65	63	−3.7	8.4
Lebanon	15	5.2	22.6	4.2	29	34	−5.3	9.6
Sudan								
Sudan (former)	9 740	1.5	5.4	−1.0	3 136	5 281	8.7	0.5
Syrian Arab Republic	1 354	−0.1	7.2	−7.7	818	970	−8.9	−7.8
Regional Office for Africa	85 192	2.6	11.8	1.8	102 648	100 196	2.5	3.9
Regional Office for Asia and the Pacific	103 968	0.5	33.6	2.9	315 063	349 338	0.6	4.0
Regional Office for Europe and Central Asia	65 345	−1.3	39.2	3.6	215 550	255 874		1.0
Regional Office for Latin America and the Caribbean	35 960	0.9	37.7	2.9	137 614	135 733	4.4	3.1
World	323 286	0.9	36.0	3.3	1 121 168	1 165 188		2.8

TABLE 22: **Rice producers and their productivity**

	Rice							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha	percent	thousand hg/ha	percent	thousand tonnes	thousand tonnes	percent	percent
	2011	2000-11	2011	2000-11	2010	2011	1990-2000	2000-11
Regional office for the Near East and North Africa								
Gulf Cooperation Council States and Yemen								
Bahrain								
Kuwait								
Oman								
Qatar								
Saudi Arabia	0.0				0	0		
United Arab Emirates								
Yemen								
North Africa								
Algeria	0.2	−0.9	15.3	−0.5	0	0	−14.6	−1.3
Libya								
Mauritania	31.1	5.1	51.9	1.9	134	161	3.9	7.0
Morocco	2.5	−6.9	70.2	4.1	51	18	22.4	−3.1
Tunisia								
Other Near East Countries								
Egypt	593.2	−1.0	95.7	0.5	4 330	5 675	6.6	−0.5
Iran (Islamic Republic of)	460.0	−1.4	50.0	2.8	3 013	2 300	−0.0	1.4
Iraq	65.7	−3.7	35.8	17.6	156	235	−12.5	13.2
Jordan								
Lebanon								
Sudan								
Sudan (former)	6.7	1.9	37.2	8.8	23	25	23.1	10.9
Syrian Arab Republic								
Regional Office for Africa	10 222.6	4.5	19.9	2.3	21 533	20 368	2.6	6.1
Regional Office for Asia and the Pacific	144 342.4	0.5	45.2	2.1	632 301	652 583		1.8
Regional Office for Europe and Central Asia								
Regional Office for Latin America and the Caribbean	5 909.4	−0.3	49.3	2.4	25 828	29 156	4.6	2.4
World								

TABLE 23: **Wheat producers and their productivity**

	Wheat							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha	percent	thousand hg/ha	percent	thousand tonnes	thousand tonnes	percent	percent
	2011	2000-11	2011	2000-11	2010	2011	1990-2000	2000-11
Regional office for the Near East and North Africa	17 555	2.2	23.2	2.5	36 999	40 795	0.4	6.6
Gulf Cooperation Council States and Yemen	311	−2.9	46.2	1.1	1 569	1 436	−6.3	−2.2
Bahrain								
Kuwait	1	14.9	23.2	0.1	2	2	22.0	15.0
Oman	1	3.4	33.1	0.3	2	2	1.7	3.8
Qatar	0	−10.2	23.6	0.2	0	0	−18.4	−10.0
Saudi Arabia	185	−7.2	64.9	3.9	1 300	1 200	−6.7	−3.6
United Arab Emirates	0	−19.7	60.0	−0.7	0	0	−18.7	−20.3
Yemen	124	3.3	18.7	1.3	265	232	−0.9	4.6
North Africa	5 684	2.3	18.2	6.0	8 412	10 347	−4.8	12.2
Algeria	1 672	6.6	15.3	4.7	2 605	2 555	0.1	11.6
Libya	150	−0.4	11.1	3.1	106	166	−0.3	2.6
Mauritania	2	16.9	16.0	1.0	2	3	−1.8	18.0
Morocco	3 088	0.6	19.5	13.7	4 876	6 018	−9.2	14.3
Tunisia	772	0.7	20.8	5.3	822	1 606	−2.8	6.0
Other Near East Countries	11 560	2.3	25.1	2.6	27 017	29 011	2.0	5.1
Egypt	1 285	2.0	65.4	0.3	7 177	8 407	4.4	2.3
Iran (Islamic Republic of)	7 085	3.0	19.1	1.7	13 500	13 500	0.1	4.8
Iraq	1 437	1.6	19.6	17.9	2 749	2 809	−10.7	19.8
Jordan	14	−2.2	13.8	−0.1	22	20	−11.1	−2.2
Lebanon	35	−1.2	35.7	2.6	83	125	7.6	1.3
Sudan								
Sudan (former)	183	6.4	16.0	−3.4	403	292	−6.3	2.9
Syrian Arab Republic	1 521	−0.9	25.4	2.9	3 083	3 858	4.1	2.0
Regional Office for Africa								
Regional Office for Asia and the Pacific								
Regional Office for Europe and Central Asia	84 731	0.9	33.2	2.2	245 029	281 512		2.7
Regional Office for Latin America and the Caribbean								
World								

TABLE 24: **Oilcrop producers and their productivity**

	Oilcrops							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha	percent	thousand hg/ha	percent	thousand tonnes	thousand tonnes	percent	percent
	2011	2000-11	2011	2000-11	2010	2011	1990-2000	2000-11
Regional office for the Near East and North Africa	8 721	1.0	2.5	1.5	1 912	2 153	5.8	3.9
Gulf Cooperation Council States and Yemen	45	−2.8	3.4	1.7	16	15	7.5	1.0
Bahrain								
Kuwait	0	18.4	4.1	5.7	0	0	−8.4	25.2
Oman								
Qatar								
Saudi Arabia	3	0.2	7.5	−1.8	2	3	5.0	−1.7
United Arab Emirates								
Yemen	42	−3.1	3.1	4.8	14	13	8.3	1.5
North Africa	3 318	3.3	2.0	2.3	700	662	−1.8	7.7
Algeria	331	5.3	4.6	3.4	84	152	−1.0	8.9
Libya	226	4.3	1.6	−5.6	46	36	8.2	−1.5
Mauritania	5	−4.6	1.9	−0.0	1	1	0.8	−4.6
Morocco	959	4.3	3.6	6.5	372	344	−4.0	11.0
Tunisia	1 797	2.2	0.7	−2.1	196	128	−3.7	0.0
Other Near East Countries	5 357	−0.3	2.8	0.8	1 196	1 475	8.0	2.2
Egypt	390	0.1	5.9	0.5	222	232	4.0	0.6
Iran (Islamic Republic of)	492	0.5	4.8	6.8	234	238	1.4	7.3
Iraq	69	−3.0	4.8	1.7	30	33	0.5	−1.3
Jordan	62	−0.3	4.7	0.1	38	29	7.7	−0.2
Lebanon	59	0.0	3.8	−6.0	21	23	10.6	−5.9
Sudan								
Sudan (former)	3 412	−0.8	1.8	3.4	379	602	12.6	2.6
Syrian Arab Republic	874	1.1	3.7	−1.1	273	319	6.8	0.1
Regional Office for Africa	30 823	2.7	3.1	1.1	9 060	9 448	4.0	4.5
Regional Office for Asia and the Pacific	114 836	1.8	8.1	2.3	85 313	93 018	4.9	5.5
Regional Office for Europe and Central Asia	41 076	4.2	6.5	2.5	22 842	26 526		6.8
Regional Office for Latin America and the Caribbean	55 341	5.3	5.7	2.7	29 614	31 405	4.9	6.7
World	278 925	2.5	6.4	2.4	169 623	179 676	4.4	5.2

TABLE 25: **Pulse producers and their productivity**

	Pulses							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha	percent	thousand hg/ha	percent	thousand tonnes	thousand tonnes	percent	percent
	2011	2000-11	2011	2000-11	2010	2011	1990-2000	2000-11
Regional office for the Near East and North Africa	2 387	0.7	9.7	−2.5	2 171	2 313	2.2	3.5
Gulf Cooperation Council States and Yemen	50	−0.9	20.5	−7.5	110	103	−1.1	3.4
Bahrain	0	3.8	190.0	−10.4	0	0	58.7	−7.0
Kuwait								
Oman								
Qatar								
Saudi Arabia	5	0.7	28.0	3.8	12	13	0.9	4.5
United Arab Emirates								
Yemen	46	−1.1	19.7	4.4	98	90	−1.8	3.3
North Africa	745	1.6	8.0	5.6	511	597	−4.8	9.9
Algeria	80	2.2	9.3	9.4	72	74	−4.6	11.7
Libya	4	−5.7	21.2	3.0	9	9	0.5	−2.9
Mauritania	122	2.1	3.9	0.0	57	48	4.8	2.1
Morocco	430	1.6	7.9	10.0	282	340	−11.6	11.7
Tunisia	108	1.2	11.7	6.3	91	126	−0.5	7.6
Other Near East Countries	1 592	0.3	10.1	1.1	1 549	1 612	3.5	1.2
Egypt	102	−3.1	29.7	0.0	315	303	−2.2	−3.1
Iran (Islamic Republic of)	860	−1.5	8.5	4.0	729	729	4.8	2.4
Iraq	19	−14.4	8.6	1.7	20	16	15.3	−13.0
Jordan	2	−3.1	17.2	3.8	6	4	−6.0	0.5
Lebanon	6	−3.9	15.7	0.9	9	10	−6.8	−3.0
Sudan								
Sudan (former)	347	7.3	9.2	−4.8	290	320	9.7	2.2
Syrian Arab Republic	255	−0.5	9.0	3.1	180	231	−0.3	2.6
Regional Office for Africa	21 703	4.4	6.0	1.0	14 520	13 033	3.2	5.9
Regional Office for Asia and the Pacific	43 795	2.9	8.3	0.5	32 612	36 303		3.4
Regional Office for Europe and Central Asia	4 679	0.7	18.3	2.9	8 312	8 578		1.5
Regional Office for Latin America and the Caribbean	6 888	−0.8	9.2	1.0	6 620	6 338	1.9	0.9
World	79 399	2.6	8.6	0.7	69 627	68 218		2.9

TABLE 26: **Root and tuber producers and their productivity**

	Roots and tubers							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha 2011	percent 2000-11	thousand hg/ha 2011	percent 2000-11	thousand tonnes 2010	thousand tonnes 2011	percent 1990-2000	percent 2000-11
Regional office for the Near East and North Africa	808	3.0	233	2.2	16 864	18 846	4.2	5.7
Gulf Cooperation Council States and Yemen	42	2.2	201	1.8	846	838	14.0	2.7
Bahrain	0	11.6	160	4.1	0	0	−13.1	16.1
Kuwait	2	8.7	273	0.0	37	45	27.4	8.7
Oman	0	−7.1	259	−0.1	7	8	13.3	−7.1
Qatar	0	−9.5	180	6.9	0	0	−13.9	−3.3
Saudi Arabia	20	3.0	255	−0.2	490	510	19.6	2.7
United Arab Emirates	0	−7.1	249	2.9	8	10	14.6	−4.4
Yemen	19	1.2	137	0.9	304	265	2.8	2.1
North Africa	237	3.7	268	3.1	5 583	6 327	3.1	8.4
Algeria	132	5.6	293	5.3	3 300	3 862	4.1	11.1
Libya	19	6.3	189	−0.5	290	352	2.7	5.8
Mauritania	3	0.7	22	−0.3	7	7	0.9	0.5
Morocco	59	−0.4	296	4.6	1 616	1 739	2.0	4.2
Tunisia	24	1.4	152	0.7	370	367	2.9	2.2
Other Near East Countries	530	2.8	220	1.5	10 435	11 681	3.7	4.4
Egypt	177	6.7	266	1.0	4 138	4 721	1.2	7.8
Iran (Islamic Republic of)	150	−1.1	300	3.0	4 274	4 500	3.8	1.9
Iraq	40	0.4	138	−0.2	205	557	10.8	0.2
Jordan	6	4.4	368	3.1	175	216	0.8	7.6
Lebanon	12	−1.0	239	1.0	261	276	1.4	−0.0
Sudan								
Sudan (former)	110	2.5	63	−0.0	710	695	9.4	2.5
Syrian Arab Republic	35	4.1	202	−0.5	673	715	2.0	3.6
Regional Office for Africa	25 251	2.1	98	1.6	229 332	247 366	5.5	4.1
Regional Office for Asia and the Pacific	19 841	−0.2	182	2.3	332 906	361 494	2.7	1.7
Regional Office for Europe and Central Asia	6 836	−2.6	210	2.2	121 002	143 608		−0.2
Regional Office for Latin America and the Caribbean	4 247	0.6	134	1.0	55 491	56 775	1.0	1.4
World	54 933	0.8	148	1.7	749 787	810 845	2.8	2.1

TABLE 27: **Vegetable producers and their productivity**

	Vegetables (including melons)							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha 2011	percent 2000-11	thousand hg/ha 2011	percent 2000-11	thousand tonnes 2010	thousand tonnes 2011	percent 1990-2000	percent 2000-11
Regional office for the Near East and North Africa	3 319	2.3	225	1.8	70 058	74 755	4.1	4.5
Gulf Cooperation Council States and Yemen	193	1.7	210	0.1	3 984	4 048	14.1	2.7
Bahrain	1	−2.6	257	7.6	16	18	1.1	4.8
Kuwait	6	4.6	509	0.6	299	305	5.3	5.3
Oman	15	5.4	189	−2.5	341	285	3.1	2.8
Qatar	3	−1.6	171	0.1	48	48	7.5	−1.5
Saudi Arabia	96	1.7	253	2.5	2 236	2 439	−3.5	4.2
United Arab Emirates	7	−15.0	255	−8.7	177	176	27.8	−22.4
Yemen	65	2.4	119	0.1	867	778	1.0	2.5
North Africa	708	1.8	213	3.4	14 530	15 046	2.6	5.3
Algeria	309	2.7	181	4.4	5 216	5 579	5.1	7.3
Libya	66	−0.5	149	1.3	947	979	2.4	0.8
Mauritania	2	−14.7	31	15.6	5	5	−2.9	−1.4
Morocco	192	1.7	292	3.6	5 398	5 625	0.5	5.4
Tunisia	139	1.0	206	2.0	2 964	2 859	2.9	3.0
Other Near East Countries	2 418	2.6	230	1.8	51 544	55 660	2.9	4.4
Egypt	776	2.0	244	0.2	19 487	18 945	4.9	2.2
Iran (Islamic Republic of)	885	4.3	269	2.3	19 994	23 764	1.2	6.7
Iraq	310	−1.0	124	2.0	3 532	3 851	0.6	1.0
Jordan	37	2.2	470	4.0	1 610	1 750	1.0	6.3
Lebanon	32	1.0	300	−0.4	943	956	1.1	0.6
Sudan								
Sudan (former)	229	1.9	139	1.9	2 996	3 186	6.2	3.8
Syrian Arab Republic	149	4.0	216	1.4	2 983	3 207	0.6	5.5
Regional Office for Africa	5 388	2.1	68	1.3	36 810	36 846	4.7	3.4
Regional Office for Asia and the Pacific	40 228	2.6	199	1.9	765 575	802 500	8.4	4.0
Regional Office for Europe and Central Asia	6 181	−0.2	239	2.4	139 088	147 958		1.9
Regional Office for Latin America and the Caribbean	2 644	1.3	164	1.8	43 185	43 248	4.8	2.3
World	56 734	2.1	192	1.7	1 048 660	1 090 425	6.7	3.4

TABLE 28: **Sugar producers and their productivity**

	Sugar							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha 2009-12*	percent 2000-11	thousand hg/ha 2009-12*	percent 2000-11	thousand tonnes 2009-12*	thousand tonnes 2009-12*	percent 1990-2000	percent 2000-11
Regional office for the Near East and North Africa								
Gulf Cooperation Council States and Yemen								
Bahrain								
Kuwait								
Oman								
Qatar								
Saudi Arabia								
United Arab Emirates								
Yemen								
North Africa								
Algeria								
Libya								
Mauritania								
Morocco	28.9	−1.3	563.2	1.7	1 626.7	1 626.7	−0.3	0.5
Tunisia	0.0				0.0	0.0	−23.0	
Other Near East Countries								
Egypt	152.0	9.3	500.0	−0.3	7 600.0	7 600.0	17.5	9.0
Iran (Islamic Republic of)	105.0	−4.3	395.2	4.0	4 150.0	4 150.0	1.8	−0.5
Iraq	1.6	14.8	103.2	−7.2	16.0	16.0	−25.9	6.5
Jordan								
Lebanon	0.1	−35.1	213.3	−7.4	1.3	1.3	13.9	−40.0
Sudan								
Sudan (former)								
Syrian Arab Republic	27.0	−0.5	703.7	4.5	1 900.0	1 900.0	10.8	4.0
Regional Office for Africa								
Regional Office for Asia and the Pacific								
Regional Office for Europe and Central Asia	3 752.3				204 039.7	204 039.7		
Regional Office for Latin America and the Caribbean								
World								

TABLE 29: **Treenut producers and their productivity**

	Treenuts							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha 2011	percent 2000-11	thousand hg/ha 2011	percent 2000-11	thousand tonnes 2010	thousand tonnes 2011	percent 1990-2000	percent 2000-11
Regional office for the Near East and North Africa	1 005	0.7	16.6	10.6	1 565	1 665	4.6	9.0
Gulf Cooperation Council States and Yemen	0	−0.2	48.7	14.0	1	2	4.4	7.2
Bahrain	0	−5.3	42.8	3.1	0	0	5.3	−2.3
Kuwait								
Oman								
Qatar								
Saudi Arabia								
United Arab Emirates	0	−3.4	417.1	15.4	1	1	4.3	11.4
Yemen	0	2.3	6.3	−1.5	0	0	1.1	0.7
North Africa	462	0.4	5.0	1.6	239	230	2.1	2.2
Algeria	40	3.5	5.6	−4.9	57	22	8.5	−1.5
Libya	44	−1.6	8.7	5.1	30	38	−2.3	3.5
Mauritania								
Morocco	151	0.5	7.0	3.1	98	106	1.9	3.6
Tunisia	227	0.2	2.8	0.1	54	63	1.6	0.2
Other Near East Countries	543	0.9	26.4	5.9	1 325	1 433	5.5	10.1
Egypt	5	−2.8	73.3	5.8	42	37	16.9	2.8
Iran (Islamic Republic of)	431	−0.1	26.6	11.7	1 101	1 147	2.0	11.6
Iraq	2	−2.8	19.1	2.9	4	4	−2.1	−0.0
Jordan	1	2.1	63.5	5.7	3	4	2.8	7.9
Lebanon	6	−2.9	72.1	6.8	33	41	5.0	3.7
Sudan								
Sudan (former)								
Syrian Arab Republic	98	5.9	20.4	−0.9	143	200	13.5	5.0
Regional Office for Africa								
Regional Office for Asia and the Pacific								
Regional Office for Europe and Central Asia	1 743	0.6	12.0	2.3	2 160	2 091		1.3
Regional Office for Latin America and the Caribbean								
World								

TABLE 30: **Fruit producers and their productivity**

	Fruit (excluding melons)							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha	percent	thousand hg/ha	percent	thousand tonnes	thousand tonnes	percent	percent
	2011	2000-11	2011	2000-11	2010	2011	1990-2000	2000-11
Regional office for the Near East and North Africa	3 891	1.4	107.0	1.0	40 936	41 626	4.6	2.5
Gulf Cooperation Council States and Yemen	445	0.5	79.0	1.0	4 057	3 520	8.3	2.6
Bahrain	2	4.8	88.1	−4.5	21	22	7.8	0.1
Kuwait	6	12.2	58.3	−1.0	35	36	19.5	11.1
Oman	38	−0.8	91.0	1.1	352	347	6.3	0.3
Qatar	2	0.2	86.9	1.7	22	22	9.0	1.9
Saudi Arabia	264	2.9	69.9	1.2	1 744	1 842	4.0	4.1
United Arab Emirates	43	−12.5	60.6	3.3	853	263	16.0	−9.6
Yemen	89	−0.4	111.0	4.1	1 031	988	7.8	3.7
North Africa	1 173	3.3	77.4	0.9	8 215	9 075	3.2	5.3
Algeria	500	4.9	74.0	4.0	3 304	3 698	3.9	9.0
Libya	65	1.9	62.0	0.4	386	403	0.1	2.3
Mauritania	9	4.7	26.0	−4.6	24	24	7.5	−0.2
Morocco	366	2.3	99.5	0.5	3 280	3 638	2.9	2.8
Tunisia	233	1.6	56.3	0.7	1 221	1 312	3.8	2.4
Other Near East Countries	2 272	0.6	127.7	1.2	28 664	29 030	4.4	1.7
Egypt	491	1.5	202.1	1.7	9 581	9 922	4.2	3.3
Iran (Islamic Republic of)	1 055	−0.6	111.6	0.2	11 981	11 771	5.5	−0.4
Iraq	217	1.1	51.9	−4.9	1 054	1 127	1.3	−3.9
Jordan	25	0.6	129.3	2.1	290	320	−0.7	2.7
Lebanon	59	−1.6	131.3	0.8	793	777	−3.3	−0.8
Sudan								
Sudan (former)	241	5.1	120.1	2.5	2 813	2 896	6.7	7.6
Syrian Arab Republic	184	−0.4	120.3	1.9	2 152	2 217	3.3	1.5
Regional Office for Africa	9 646	1.5	72.4	1.7	67 886	69 884	2.6	4.2
Regional Office for Asia and the Pacific	26 853	2.7	114.1	0.6	292 685	306 370	6.9	5.2
Regional Office for Europe and Central Asia	9 517	−0.6	98.1	1.4	89 394	93 318		0.5
Regional Office for Latin America and the Caribbean	7 435	0.7	155.9	1.1	111 886	115 885	3.0	1.7
World	56 642	1.6	112.6	1.0	612 513	637 576	4.0	3.4

TABLE 31: **Citrus fruit producers and their productivity**

	Citrus fruit							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha	percent	thousand hg/ha	percent	thousand tonnes	thousand tonnes	percent	percent
	2011	2000-11	2011	2000-11	2010	2011	1990-2000	2000-11
Regional office for the Near East and North Africa	702.3	1.4	173	1.0	11 646	12 163	3.7	2.5
Gulf Cooperation Council States and Yemen	29.1	−1.3	112	1.0	317	327	19.0	−0.1
Bahrain	0.1	−0.1	112	1.0	1	1	0.4	0.9
Kuwait	0.1	19.0	32	5.5	0	0	−5.9	25.6
Oman	1.2	−2.7	53	0.7	6	7	−10.9	−2.1
Qatar	0.1	−5.1	79	5.4	1	1	−1.0	0.0
Saudi Arabia	15.2	0.4	96	1.1	135	147	15.9	1.5
United Arab Emirates	0.3	−11.7	121	−4.0	6	4	−1.2	−15.3
Yemen	12.0	−3.1	139	2.0	168	168	25.1	−1.1
North Africa	202.1	2.8	162	1.8	2 625	3 276	2.9	4.3
Algeria	55.7	2.7	199	6.0	789	1 107	4.4	8.9
Libya	7.6	1.4	102	−0.0	75	77	−3.9	1.4
Mauritania								
Morocco	105.4	2.9	156	−1.5	1 360	1 642	3.2	1.3
Tunisia	33.4	3.1	134	1.0	402	449	0.2	4.1
Other Near East Countries	471.1	1.0	182	0.3	8 703	8 561	3.3	1.9
Egypt	166.2	1.7	224	2.5	3 523	3 731	0.6	4.2
Iran (Islamic Republic of)	164.0	−2.7	163	−0.1	3 078	2 681	4.7	−2.8
Iraq	41.3	1.7	24	−11.5	107	101	2.8	−10.0
Jordan	6.9	−0.9	155	−0.4	119	107	−2.2	−1.4
Lebanon	9.1	−4.6	243	1.4	250	220	−3.7	−3.3
Sudan								
Sudan (former)	42.1	10.7	133	−0.1	554	558	6.6	10.7
Syrian Arab Republic	41.7	3.9	279	−0.4	1 071	1 164	8.0	3.5
Regional Office for Africa	1 190.5	1.2	78	2.0	8 914	9 291	5.2	3.2
Regional Office for Asia and the Pacific	3 863.9	4.1	125	2.3	47 929	48 456		8.1
Regional Office for Europe and Central Asia								
Regional Office for Latin America and the Caribbean	2 121.5	0.1	179	1.6	36 330	37 950	3.8	0.1
World								

TABLE 32: **Fibre crop producers and their productivity**

	Fibre crops							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha 2010-12*	percent 2000-11	thousand hg/ha 2010-12*	percent 2000-11	thousand tonnes 2010-12*	thousand tonnes 2010-12*	percent 1990-2000	percent 2000-11
Regional office for the Near East and North Africa								
Gulf Cooperation Council States and Yemen								
Bahrain								
Kuwait								
Oman								
Qatar								
Saudi Arabia								
United Arab Emirates								
Yemen	18.8	−3.1	4.5	2.2	8.5	8.5	13.4	−0.9
North Africa								
Algeria	0.2	7.7	1.0	−5.4	0.0	0.0	−0.5	1.9
Libya								
Mauritania								
Morocco	4.1	3.8	3.7	−6.2	1.5	1.5	−15.7	−2.6
Tunisia	2.7	2.9	2.4	−4.2	0.6	0.6	8.2	−1.4
Other Near East Countries								
Egypt	229.5	−0.2	6.4	−4.2	147.4	147.4	−2.8	−4.3
Iran (Islamic Republic of)	115.0	−6.7	6.4	−0.2	73.4	73.4	3.0	−6.8
Iraq	13.5	−3.4	8.9	4.3	12.0	12.0	1.6	0.8
Jordan								
Lebanon								
Sudan								
Sudan (former)	42.0	−12.0	6.5	6.9	27.3	27.3	−8.7	−5.9
Syrian Arab Republic	175.1	−3.9	8.6	−3.5	151.3	151.3	8.1	−7.2
Regional Office for Africa	4 089.9	1.1	3.1	1.1	1 264.1	1 264.1	3.7	0.2
Regional Office for Asia and the Pacific								
Regional Office for Europe and Central Asia	3 451.7				3 162.5	3 162.5		
Regional Office for Latin America and the Caribbean	2 985.1	4.6	9.8	0.9	2 911.1	2 911.1	−1.7	6.4
World								

TABLE 33: **Jute and jute-like producers and their productivity**

	Jute and jute-like							
	area		yield		production			
	total	p.a. growth	total	p.a. growth	total		p.a. growth	
	thousand ha 2010-12*	percent 2000-11	thousand hg/ha 2010-12*	percent 2000-11	thousand tonnes 2010-12*	thousand tonnes 2010-12*	percent 1990-2000	percent 2000-11
Regional office for the Near East and North Africa								
Gulf Cooperation Council States and Yemen								
Bahrain								
Kuwait								
Oman								
Qatar								
Saudi Arabia								
United Arab Emirates								
Yemen								
North Africa								
Algeria								
Libya								
Mauritania								
Morocco								
Tunisia								
Other Near East Countries								
Egypt	0.9	−0.5	23.3	0.1	2.1	2.1	−5.8	−0.4
Iran (Islamic Republic of)	0.0				0.0	0.0	−100.0	
Iraq								
Jordan								
Lebanon								
Sudan								
Sudan (former)					3.2	3.2	1.0	−0.3
Syrian Arab Republic								
Regional Office for Africa								
Regional Office for Asia and the Pacific								
Regional Office for Europe and Central Asia								
Regional Office for Latin America and the Caribbean								
World								

TABLE 34: **Meat producers**

	Total meat production									
	total		beef and buffalo		pig		sheep and goat		poultry	
	thousand tonnes 2011	p.a. growth percent 2000-11	thousand tonnes 2011	p.a. growth percent 2000-11	thousand tonnes 2010-12*	p.a. growth percent 2000-11	thousand tonnes 2011	p.a. growth percent 2000-11	thousand tonnes 2011	p.a. growth percent 2000-11
Regional office for the Near East and North Africa	9 809	3.0	2 238.8	2.7			1 823	0.8	5 269	4.9
Gulf Cooperation Council States and Yemen	1 422	3.2	178.5	6.1			323	2.9	832	2.9
Bahrain	24	5.5	1.0	0.7			17	8.8	6	0.8
Kuwait	80	1.3	2.6	3.8			36	0.6	39	1.5
Oman	55	5.0	5.6	3.2			36	6.6	6	3.1
Qatar	22	5.3	0.5	−1.3			11	4.9	9	7.4
Saudi Arabia	761	1.5	43.6	6.6			92	−0.5	581	1.7
United Arab Emirates	132	3.1	15.4	0.0			45	1.5	41	3.9
Yemen	347	6.8	109.9	7.1			85	5.6	150	7.6
North Africa	2 331	3.3	416.2	1.5			586	2.6	1 209	5.0
Algeria	689	1.8	125.4	−0.5	0.1	−0.9	270	4.0	280	1.3
Libya	180	2.3	8.0	−0.2			44	3.4	124	2.1
Mauritania	102	2.1	27.0	2.3			45	2.5	5	0.9
Morocco	1 083	5.2	198.7	3.2	0.6	0.4	167	1.2	650	7.8
Tunisia	277	0.9	57.2	−0.4	0.1	−3.3	60	−0.4	150	2.3
Other Near East Countries	6 056	2.8	1 644.1	2.6			914	−1.2	3 229	5.4
Egypt	1 994	3.8	850.3	4.2	0.5	−16.0	127	4.9	901	3.9
Iran (Islamic Republic of)	2 189	3.2	238.0	−1.4	0.0		234	−5.5	1 698	6.9
Iraq	199	2.4	52.9	0.9			57	5.7	87	1.5
Jordan	226	4.5	17.8	9.6			17	2.2	191	4.4
Lebanon	214	1.9	68.6	1.6	0.8	−9.9	13	4.0	131	2.0
Sudan										
Sudan (former)	796	−0.4	345.0	1.4			279	−2.8	40	4.0
Syrian Arab Republic	440	2.2	71.5	3.8			186	−0.1	181	4.6
Regional Office for Africa	12 271	3.4	4 531.9	2.8	1 266.8	5.8	2 089	2.8	2 804	5.3
Regional Office for Asia and the Pacific	129 303	3.5	19 607.6	2.0	63 596.5	3.4	7 754	2.2	35 422	5.3
Regional Office for Europe and Central Asia	63 842	1.8	13 132.1	0.5	27 807.7	1.2	2 201	0.6	19 313	5.3
Regional Office for Latin America and the Caribbean	47 166	3.6	17 021.0	2.1	6 884.8	2.9	446	0.9	22 242	5.5
World	298 871	2.7	66 333.8	1.4	110 270.2	2.6	13 407	2.0	102 249	4.3

TABLE 35: **Eggs, milk, and processed milk**

	Production							
	eggs		milk		butter and ghee	cheese	evaporat and condensed milk	skim milk and buttermilk
	thousand tonnes 2011	p.a. growth percent 2000-11	million tonnes 2011	p.a. growth percent 2000-11	thousand tonnes 2011	thousand tonnes 2011	thousand tonnes 2010-12*	thousand tonnes 2010-12*
Regional office for the Near East and North Africa	2 384	3.2	30.4	2.8	411.3	1 387		
Gulf Cooperation Council States and Yemen	340	4.7	2.7	5.9	13.1	121		
Bahrain	3	1.1	0.0	−5.9				
Kuwait	40	5.9	0.1	5.3				
Oman	11	4.2	0.2	5.1	0.5	2		
Qatar	5	5.7	0.0	−4.0				
Saudi Arabia	193	3.8	1.9	6.7	5.5	100		
United Arab Emirates	26	5.4	0.1	5.3	0.7			
Yemen	62	6.5	0.3	2.8	6.4	20		
North Africa	621	2.6	7.0	5.0	43.5	56		
Algeria	195	6.2	3.0	6.4	2.7	2		
Libya	62	0.4	0.2	0.9				
Mauritania	6	1.4	0.4	1.7	0.9	6		
Morocco	265	1.1	2.3	5.7	33.5	44		
Tunisia	93	1.1	1.1	1.6	6.5	4		
Other Near East Countries	1 424	3.0	20.7	1.7	354.6	1 210		
Egypt	306	5.1	5.8	3.9	127.6	644		
Iran (Islamic Republic of)	741	2.3	7.3	2.0	187.4	255	3.3	
Iraq	51	5.0	0.3	−7.3	4.3	13		
Jordan	69	3.8	0.3	3.8		7		
Lebanon	47	0.8	0.2	0.3		16	3.4	
Sudan								
Sudan (former)	38	1.0	4.3	−2.7	17.0	156		
Syrian Arab Republic	172	2.8	2.6	3.9	18.3	119		
Regional Office for Africa	1 844	4.4	29.2	5.0				
Regional Office for Asia and the Pacific	43 830	2.7	304.7	4.4				
Regional Office for Europe and Central Asia	12 239	1.6	249.8	0.6	2 599.7	10 609	2 079.9	1 411.8
Regional Office for Latin America and the Caribbean	7 495	3.6	81.8	3.4				
World	70 616	2.5	739.4	2.8				

TABLE 36: **Fish production**

	Fish production								
	capture				aquaculture				
	total	inland	marine	p.a. growth percent	total		inland	marine	p.a. growth percent
	thousand tonnes 2011	thousand tonnes 2011	thousand tonnes 2011	2000-11	thousand tonnes 2011	thousand tonnes 2011	thousand tonnes 2011	thousand tonnes 2011-12*	2000-11
Regional office for the Near East and North Africa	3 029	453	2 576	2.2	1 305.9	1 305.9	1 295.8		11.9
Gulf Cooperation Council States and Yemen	483	0	483	1.7	27.5	27.5	25.3		14.3
Bahrain	10	0	10	−1.5	0.0	0.0		0.0	−10.8
Kuwait	4	0	4	−3.9	0.4	0.4	0.3	0.1	−0.4
Oman	159	0	159	2.5	0.2	0.2	0.2		
Qatar	13	0	13	5.6	0.0	0.0	0.0	0.0	
Saudi Arabia	64	0	64	2.5	26.8	26.8	24.8	2.0	14.6
United Arab Emirates	75	0	75	−3.0	0.2	0.2	0.0	0.2	
Yemen	157	0	157	2.9					
North Africa	1 571	25	1 546	2.9	12.0	12.0	4.1		14.3
Algeria	102		102	−1.0	2.2	2.2	2.0	0.2	18.4
Libya	30	0	30	−4.5	0.2	0.2	0.0	0.2	8.3
Mauritania	372	15	357	11.3					
Morocco	965	9	956	0.5	1.4	1.4	1.1	0.3	−2.7
Tunisia	103	1	102	0.7	8.1	8.1	0.9	7.2	16.2
Other Near East Countries	975	428	547	1.3	1 266.4	1 266.4	1 266.4		11.8
Egypt	375	253	122	−0.2	986.8	986.8	986.8		10.2
Iran (Islamic Republic of)	488	76	412	2.2	247.3	247.3	247.3		17.9
Iraq	32	30	2	3.9	20.3	20.3	20.3		25.0
Jordan	0	0	0	−0.9	0.6	0.6	0.6		0.1
Lebanon	4	0	4	0.4	1.3	1.3	1.3		11.2
Sudan									
Sudan (former)	71	66	5	2.7	2.2	2.2	2.2		7.4
Syrian Arab Republic	5	3	2	−2.6	8.0	8.0	8.0		1.5
Regional Office for Africa	6 011	2 441	3 570	2.3	540.9	540.9	396.9		22.8
Regional Office for Asia and the Pacific	52 427	7 584	40 831	1.6	76 070.0	76 070.0	40 619.5		7.9
Regional Office for Europe and Central Asia	13 648	470		−1.3	2 824.5	2 824.5	578.3		4.0
Regional Office for Latin America and the Caribbean	16 669	508	16 161	−1.1	2 396.8	2 396.8	1 009.3		10.9
World	94 497	11 054	79 034	0.6	83 704.6	83 704.6	43 994.8		

TABLE 37: **Volume of total cereal trade**

	Cereals							
	imports				exports			
	thousand tonnes 2000	thousand tonnes 2009	thousand tonnes 2010	thousand tonnes 2011	thousand tonnes 2000	thousand tonnes 2009	thousand tonnes 2010	thousand tonnes 2011
Regional office for the Near East and North Africa	61 417	77 898	79 128	75 819	1 548	2 696	3 415	1 112
Gulf Cooperation Council States and Yemen	13 628	19 184	20 734	19 419	755	1 383	1 822	469
Bahrain	123	143	175	185	6	0	0	3
Kuwait	740	974	825	889	31	50	45	49
Oman	578	534	660	712	202	95	112	96
Qatar	143	455	475	288	2	4	6	8
Saudi Arabia	7 582	10 212	12 224	11 356	7	9	48	35
United Arab Emirates	1 827	3 103	2 811	2 482	502	1 082	1 477	149
Yemen	2 635	3 764	3 564	3 508	4	142	134	130
North Africa	18 207	17 998	20 056	21 775	331	139	143	203
Algeria	7 509	7 910	7 930	11 092	0	6	8	0
Libya	2 719	3 104	2 904	1 882	1	4	0	0
Mauritania	274	588	459	439				
Morocco	5 215	4 415	5 511	5 603	98	100	122	17
Tunisia	2 490	1 981	3 252	2 760	231	30	12	185
Other Near East Countries	29 582	40 716	38 338	34 624	463	1 173	1 450	440
Egypt	9 655	14 585	16 814	16 999	395	774	704	218
Iran (Islamic Republic of)	9 928	11 195	8 878	5 656	7	88	653	147
Iraq	4 589	5 317	4 223	4 918	0	0	0	3
Jordan	1 537	1 756	1 391	1 329	4	49	14	19
Lebanon	830	1 056	996	1 001	2	34	42	20
Sudan								
Sudan (former)	1 313	2 385	2 539	2 141	53	1	5	33
Syrian Arab Republic	1 731	4 421	3 496	2 580	2	227	32	1
Regional Office for Africa	17 537	31 902	30 039	32 563	1 399	2 643	3 136	4 590
Regional Office for Asia and the Pacific	85 147	86 287	90 411	90 783	58 784	74 750	71 967	86 798
Regional Office for Europe and Central Asia	64 609	85 544	84 545	88 890	82 249	144 819	131 168	126 372
Regional Office for Latin America and the Caribbean	43 984	46 539	49 686	51 469	26 007	33 720	43 686	49 073
World	271 020	328 859	336 408	343 234	273 088	330 193	340 306	349 647

TABLE 38: **Volume of total oilseeds**

	Oilseeds							
	imports				exports			
	thousand tonnes 2000	thousand tonnes 2009	thousand tonnes 2010	thousand tonnes 2011	thousand tonnes 2000	thousand tonnes 2009	thousand tonnes 2010	thousand tonnes 2011
Regional office for the Near East and North Africa	1 701	4 656	5 653	4 935	339	285	250	201
Gulf Cooperation Council States and Yemen	150	1 223	1 435	1 728	4	51	63	17
Bahrain	3	8	13	7	0	0	0	0
Kuwait	5	7	12	11	0	0	0	0
Oman	22	5	4	1	0	0	0	0
Qatar	1	6	9	1	0	0	0	0
Saudi Arabia	58	307	466	734	0	1	0	0
United Arab Emirates	14	869	914	961	3	49	62	16
Yemen	46	21	17	13	1	1	1	1
North Africa	386	700	755	593	23	1	1	1
Algeria	3	55	37	51	0	0	0	0
Libya	30	1	1	2	23	0	0	0
Mauritania	0	0	0	0	0	0	0	0
Morocco	322	400	279	58	0	0	0	0
Tunisia	31	244	438	482	0	0	0	0
Other Near East Countries	1 165	2 733	3 463	2 613	313	233	185	184
Egypt	381	586	1 808	1 214	12	68	27	52
Iran (Islamic Republic of)	604	1 042	950	931	3	4	4	4
Iraq	2	5	4	13	0	0	0	0
Jordan	27	27	29	30	1	1	1	9
Lebanon	28	36	42	33	0	0	1	0
Sudan								
Sudan (former)	2	4	5	14	267	143	139	114
Syrian Arab Republic	122	1 033	625	379	30	17	15	4
Regional Office for Africa	268	446	371	310	1 056	1 309	1 323	1 222
Regional Office for Asia and the Pacific	28 712	61 023	73 760	71 607	5 406	3 713	3 417	5 459
Regional Office for Europe and Central Asia	26 917	33 629	35 214	34 720	10 017	15 711	15 271	16 786
Regional Office for Latin America and the Caribbean	7 883	7 915	7 598	7 069	18 652	37 255	49 450	51 548
World	68 961	110 078	125 087	121 239	67 741	110 994	124 869	121 909

TABLE 39: **Volume of total sugar and honey trade**

	Sugar and honey							
	imports				exports			
	thousand tonnes 2000	thousand tonnes 2009	thousand tonnes 2010	thousand tonnes 2011	thousand tonnes 2000	thousand tonnes 2009	thousand tonnes 2010	thousand tonnes 2011
Regional office for the Near East and North Africa	6 967	11 408	13 207	12 436	1 327	1 645	1 859	2 102
Gulf Cooperation Council States and Yemen	2 218	4 232	4 593	4 222	566	928	896	980
Bahrain	23	58	58	68	0	1	1	0
Kuwait	70	97	86	92	1	4	2	3
Oman	51	109	114	79	2	18	6	10
Qatar	18	49	49	6	0	1	0	0
Saudi Arabia	658	1 195	1 636	1 328	13	297	441	397
United Arab Emirates	942	2 066	1 804	1 942	550	578	442	543
Yemen	456	657	845	706	0	29	4	26
North Africa	2 059	2 941	2 906	3 298	138	85	85	417
Algeria	845	1 245	1 367	1 590	0	35	25	351
Libya	167	196	176	159	0	0	0	0
Mauritania	206	163	199	203	0	1	0	0
Morocco	563	986	805	870	136	36	50	45
Tunisia	278	351	359	476	2	13	10	21
Other Near East Countries	2 691	4 235	5 708	4 917	623	632	879	705
Egypt	443	756	1 153	1 294	217	280	512	442
Iran (Islamic Republic of)	1 105	567	1 946	1 084	114	11	68	111
Iraq	407	784	518	741	0	0	0	0
Jordan	201	240	309	279	4	16	11	6
Lebanon	99	180	191	194	6	5	5	9
Sudan								
Sudan (former)	30	456	256	569	238	45	26	61
Syrian Arab Republic	405	1 252	1 335	756	43	275	257	76
Regional Office for Africa	2 855	5 363	5 885	6 448	4 123	2 949	2 909	2 886
Regional Office for Asia and the Pacific	18 284	18 325	21 330	21 563	13 966	13 340	14 369	15 657
Regional Office for Europe and Central Asia	20 215	20 774	22 464	25 066	14 322	12 520	14 312	13 689
Regional Office for Latin America and the Caribbean	1 836	3 753	4 943	5 394	16 387	32 975	36 102	33 549
World	49 828	63 826	70 189	74 548	51 314	65 516	73 185	71 486

TABLE 40: **Volume of total meat trade**

	Total meat							
	imports				exports			
	thousand tonnes 2000	thousand tonnes 2009	thousand tonnes 2010	thousand tonnes 2011	thousand tonnes 2000	thousand tonnes 2009	thousand tonnes 2010	thousand tonnes 2011
Regional office for the Near East and North Africa	1 174	2 897	3 135	3 176	49	186	208	213
Gulf Cooperation Council States and Yemen	838	1 874	1 915	1 955	29	101	99	108
Bahrain	29	45	63	64	0	1	2	1
Kuwait	81	246	202	172	2	2	1	1
Oman	42	177	114	132	1	32	14	14
Qatar	32	108	131	96	0	2	2	2
Saudi Arabia	453	748	898	990	25	39	54	60
United Arab Emirates	135	433	396	415	2	25	26	31
Yemen	65	118	112	87	0	0	0	0
North Africa	32	142	97	106	1	3	4	6
Algeria	19	82	47	66	0	0	0	0
Libya	3	30	24	9	0	0	0	0
Mauritania	3	9	7	11	0	0	0	0
Morocco	3	13	10	14	0	1	1	1
Tunisia	4	8	9	6	1	2	3	5
Other Near East Countries	305	881	1 123	1 115	19	83	106	99
Egypt	206	187	335	244	1	3	3	3
Iran (Islamic Republic of)	31	141	281	265	7	7	26	29
Iraq	0	345	287	406	0	0	0	0
Jordan	37	107	123	127	2	51	58	51
Lebanon	30	74	71	55	0	7	8	7
Sudan								
Sudan (former)	0	2	3	5	9	2	2	5
Syrian Arab Republic	0	25	23	12	0	14	9	5
Regional Office for Africa	543	1 210	1 328	1 672	117	141	182	148
Regional Office for Asia and the Pacific	6 191	8 339	8 770	9 817	4 121	4 605	4 973	5 068
Regional Office for Europe and Central Asia	10 782	18 160	18 362	18 723	11 028	16 141	17 617	18 981
Regional Office for Latin America and the Caribbean	1 812	3 233	3 174	3 302	2 418	8 208	7 839	7 838
World	23 347	35 767	36 957	39 266	24 457	37 882	39 767	42 014

TABLE 41: **Volume of total dairy products trade**

	Dairy products (milk equivalent)							
	imports				exports			
	thousand tonnes 2000	thousand tonnes 2009	thousand tonnes 2010	thousand tonnes 2011	thousand tonnes 2000	thousand tonnes 2009	thousand tonnes 2010	thousand tonnes 2011
Regional office for the Near East and North Africa	6 638	11 116	10 821	12 711	541	3 560	3 813	4 571
Gulf Cooperation Council States and Yemen	2 578	4 693	4 695	5 101	437	2 531	2 904	3 237
Bahrain	103	192	175	222	1	106	88	121
Kuwait	273	298	323	299	10	37	30	77
Oman	221	750	665	738	135	508	459	456
Qatar	140	178	284	99	1	1	0	3
Saudi Arabia	1 105	1 504	1 930	2 295	259	1 604	2 068	2 090
United Arab Emirates	463	1 285	959	1 020	30	225	238	428
Yemen	273	486	360	428	1	50	20	62
North Africa	2 063	3 337	3 101	3 623	52	66	49	52
Algeria	1 553	2 400	2 170	2 793	0	2	2	1
Libya	157	397	367	289	0	0	0	0
Mauritania	31	99	159	182	0	0	0	0
Morocco	254	358	329	280	10	18	20	8
Tunisia	68	83	77	79	42	46	27	42
Other Near East Countries	1 997	3 086	3 025	3 986	53	962	860	1 283
Egypt	728	669	1 107	2 121	18	541	135	643
Iran (Islamic Republic of)	175	464	519	472	10	167	447	499
Iraq	476	656	283	368	0	0	0	0
Jordan	156	319	263	274	13	86	55	43
Lebanon	280	318	312	299	1	6	6	8
Sudan								
Sudan (former)	44	276	242	194	2	0	0	0
Syrian Arab Republic	138	384	298	260	10	162	216	90
Regional Office for Africa	2 110	3 255	3 333	3 397	287	326	276	315
Regional Office for Asia and the Pacific	12 510	18 253	21 689	23 445	15 810	20 645	20 233	16 051
Regional Office for Europe and Central Asia	37 380	50 516	54 004	54 879	50 663	63 701	67 893	70 975
Regional Office for Latin America and the Caribbean	6 862	7 690	6 377	7 311	2 029	3 964	3 620	4 711
World	69 182	95 236	100 370	103 362	72 773	98 300	104 380	105 487

TABLE 42: **Value of fish trade**

	Fish							
	imports				exports			
	million US$ 2000	million US$ 2009	million US$ 2010	million US$ 2011	million US$ 2000	million US$ 2009	million US$ 2010	million US$ 2011
Regional office for the Near East and North Africa	598	1 790	2 152	2 479	1 359	2 389	2 632	2 747
Gulf Cooperation Council States and Yemen	242	721	990	1 180	165	446	598	596
Bahrain	5	14	16	21	10	16	15	8
Kuwait	26	80	106	106	5	3	3	3
Oman	6	32	35	45	51	87	128	159
Qatar	6	50	60	67	2	3	6	3
Saudi Arabia	109	223	383	487	8	71	122	76
United Arab Emirates	87	313	375	441	68	69	88	84
Yemen	5	9	15	14	21	197	237	263
North Africa	42	289	312	366	1 140	1 838	1 856	1 937
Algeria	12	54	50	59	4	8	6	6
Libya	9	52	71	78	12	5	5	4
Mauritania	0	0	1	1	87	126	152	182
Morocco	9	116	123	156	950	1 548	1 539	1 523
Tunisia	12	67	67	74	86	150	154	221
Other Near East Countries	314	780	850	933	53	105	178	215
Egypt	171	476	500	531	1	14	15	24
Iran (Islamic Republic of)	36	34	68	86	50	76	155	175
Iraq	0	23	22	20	0	0	0	0
Jordan	22	86	80	83	2	7	5	13
Lebanon	44	98	114	124	0	6	3	3
Sudan								
Sudan (former)	1	5	7	9	0	0	1	0
Syrian Arab Republic	41	60	59	80	0	1	0	1
Regional Office for Africa	743	2 643	2 825	3 686	1 639	3 150	3 246	3 255
Regional Office for Asia and the Pacific	20 976	28 094	32 446	38 952	19 834	35 430	42 662	51 369
Regional Office for Europe and Central Asia	21 968	46 172	49 714	56 548	18 232	35 792	40 470	45 603
Regional Office for Latin America and the Caribbean	1 062	3 020	3 544	4 098	6 821	11 241	11 546	14 437
World	60 089	99 896	111 138	128 985	55 760	96 373	109 630	128 161

PART

4

Sustainability dimensions

Agriculture – including crops, livestock, forest, fisheries and aquaculture – is the main human activity responsible for natural resource management at the local and regional levels. The Near East and Africa region's critical shortage of water and cultivable land and the pressure on these resources, and their degradation make their efficient management a paramount task. Appropriate management of demand can help ensure that water and land are used optimally for crop, livestock, fisheries and forestry production. A holistic approach to water and resource management is the first step in addressing the challenges the region is facing and to identify working solutions. Livestock and fisheries are particularly important food resources in many countries of the region, which makes preservation and sustainable management of rangelands and marine ecosystems resources an important priority.

In several countries in the region, forestry, although limited, plays an important role in the preservation of the natural environment and the mitigation of the impacts of climate change. Increasing efficiency

of water and land use through new technologies could expand production and increase the use of these resources in the alleviation of food insecurity and poverty. Opportunities for water harvesting, reutilization of wastewater and enhancement of rangeland have great potential in many countries of the region. For these opportunities to be realized, it will be necessary to promote the engagement and participation of all stakeholders in planning and managing water, land and genetic resources. Regional cooperation on transboundary water management will also be essential.

With proper policies, agricultural sectors can deliver a wide range of benefits, including the provision of environmental services and amenities through water storage and purification, carbon sequestration and the maintenance of rural landscapes. In this context, research-driven sustainable pathways to agricultural intensification can save vast areas of natural forest and grasslands that would be developed in the absence of higher crop, meat and milk yields.

Both new and traditional demands for produce are increasing the pressure on scarce agricultural resources in the region. While the agriculture sector will be forced to compete for land and water with expanding urban settlements and industrial zones, it may also be required to meet the growing demands of the emerging bio-based economy, increasingly through bioenergy and new emerging markets for renewable and sustainable industrial products.

Climate change is likely to affect agriculture and food security in the region primarily through changes in temperature, precipitation, extreme climatic events and sea level. These may result in increased water scarcity, land degradation, crop failures, loss of rangeland and other vegetation covers, livestock deaths and reduced fisheries production. To move toward sustainable food and agriculture systems, governments, public institutions and farmers, particularly the poor producers, need to be supported in their efforts to adapt to and, where appropriate, mitigate climate change.

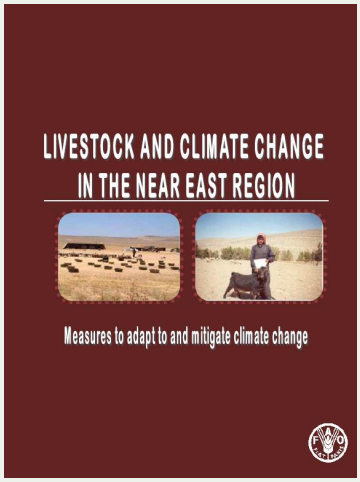
Emissions of greenhouse gases (GHGs) from agriculture, forestry and other land uses contribute significantly to the threat of global warming. The land sectors are responsible for nearly 30 percent of all human-induced GHG emissions into the atmosphere, a contribution comparable to that of the energy sector and far exceeding total emissions from transportation. Crop and livestock production alone is responsible for half of the methane and two-thirds of the nitrous oxide emitted into the atmosphere by human activity.

Key Resources

Livestock and Climate Change in the Near East Region: Measures to Adapt to and Mitigate Climate Change

The primary objective of this document is to provide an overview of the actual and potential impacts of climate change and climate variability on the livestock sector in the region for adaptation and mitigation measures. It analyzes and documents the impacts, hotspots of climate change, projections and vulnerability of the sector, and the needed measures to adapt to and mitigate climate change. The authors used an in-depth analysis of literature, utilization of GIS tools and experiences in the region.

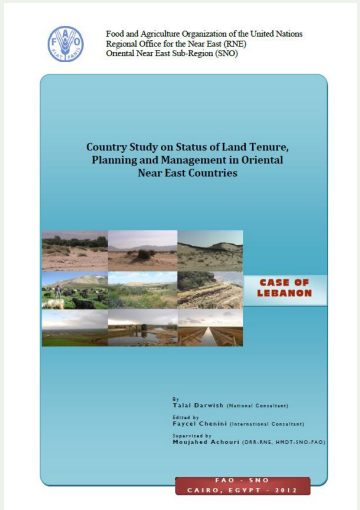
Webpage:
www.fao.org/docrep/016/i2714e/i2714e.pdf



Country Study on Status of Land Tenure, Planning and Management in Oriental Near East Countries

The report reviews state policy in the management of soil and water resources, challenges, responses and assess the constraints and interventions for sustainable land management by highlighting the best practices. Specifically, the report reviews works on how to promote water saving using drip irrigation, disseminate good practices like conservation agriculture, integrated pest management and organic farming. It presents the important role the green plan is playing to help farmers in land reformation, road building, land cleaning, water reservoirs construction, and discusses the promulgation of laws that protect agricultural land and encourage the construction on rocky terrains. It also looks at chemical, physical and biological land degradation, including water pollution and water scarcity, soil erosion, soil salinity, soil sealing and rangeland deterioration.

Webpage: http://neareast.fao.org/Download.ashx?file=app_uploads/XF2013111307/Files/Final_edited_country_report_Lebanon.pdf



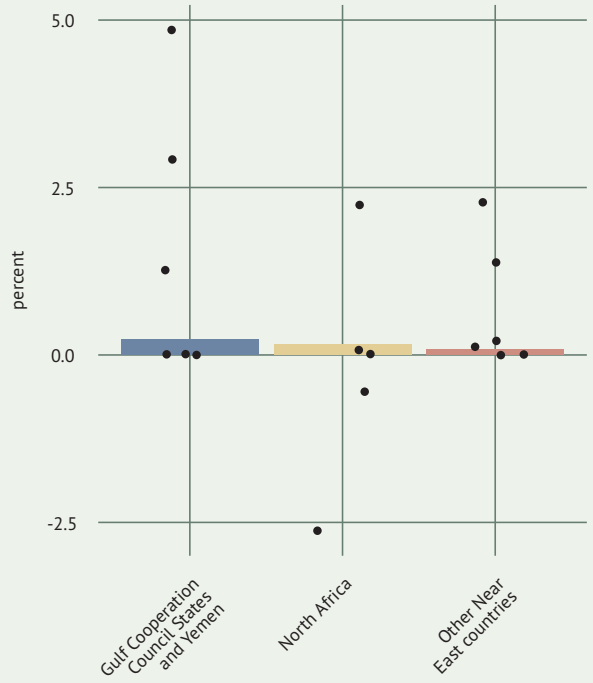
Land and Forestry

Forests play an essential role in mitigating climate change and providing products and ecosystem services that are essential to the prosperity of humankind. The latest estimate of the world's total forest area is more than 4 billion ha, corresponding to about 30 percent of total land area. The five most forest-rich countries – the Russian Federation, Brazil, Canada, the United States of America and China – account for more than half of the planet's total forest area. At the global level, deforestation has decreased from an estimated 16 million ha per year in the 1990s to about 13 million ha per year in the last decade. Most of the loss of forest continued to take place in countries and areas in tropical regions, while most of the gain took place in temperate and boreal zones.

As indicated earlier, forests cover only about two percent of the total land area in the Near East and Africa. The region's relatively meager forest resources account for only 0. 6 percent of the world's total forest resources. However, many countries in the region have registered slight increases in forest cover since 1990. In the GCC countries and Yemen, forested area increased by nearly 100 000 hectares to reach over 1.8 million hectares in 2011. Almost all of this was concentrated in the United Arab Emirates. Most other countries in the sub-region showed little or no increase in forest cover.

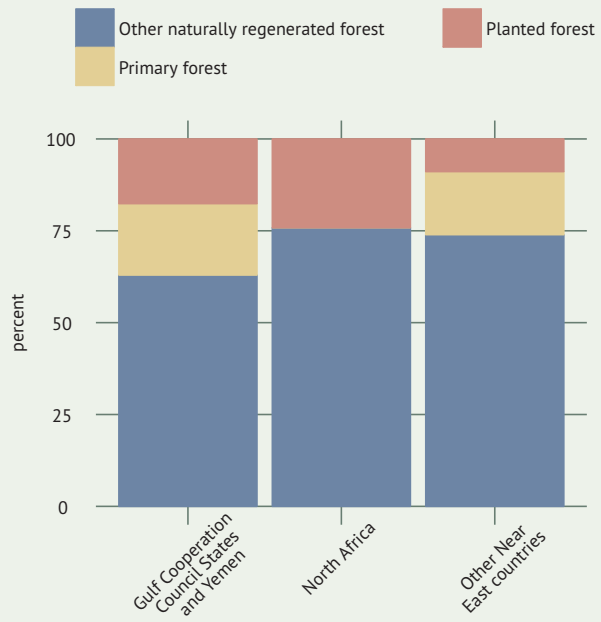
In North Africa, the amount of forest cover increased very slightly, to just over 8 million hectares. Tunisia made significant progress in increasing forest cover, expanding its forested area from 643 000 hectares to over a million hectares between 1990 and 2011. Morocco also showed an increase in forest coverage, although to a much more modest degree. The gains in these two countries were slightly greater than losses in forest cover in Algeria and Mauritania. Forest cover remained stable in Libya.

CHART 92: **Annual growth rate in forest area (1990-2011)**



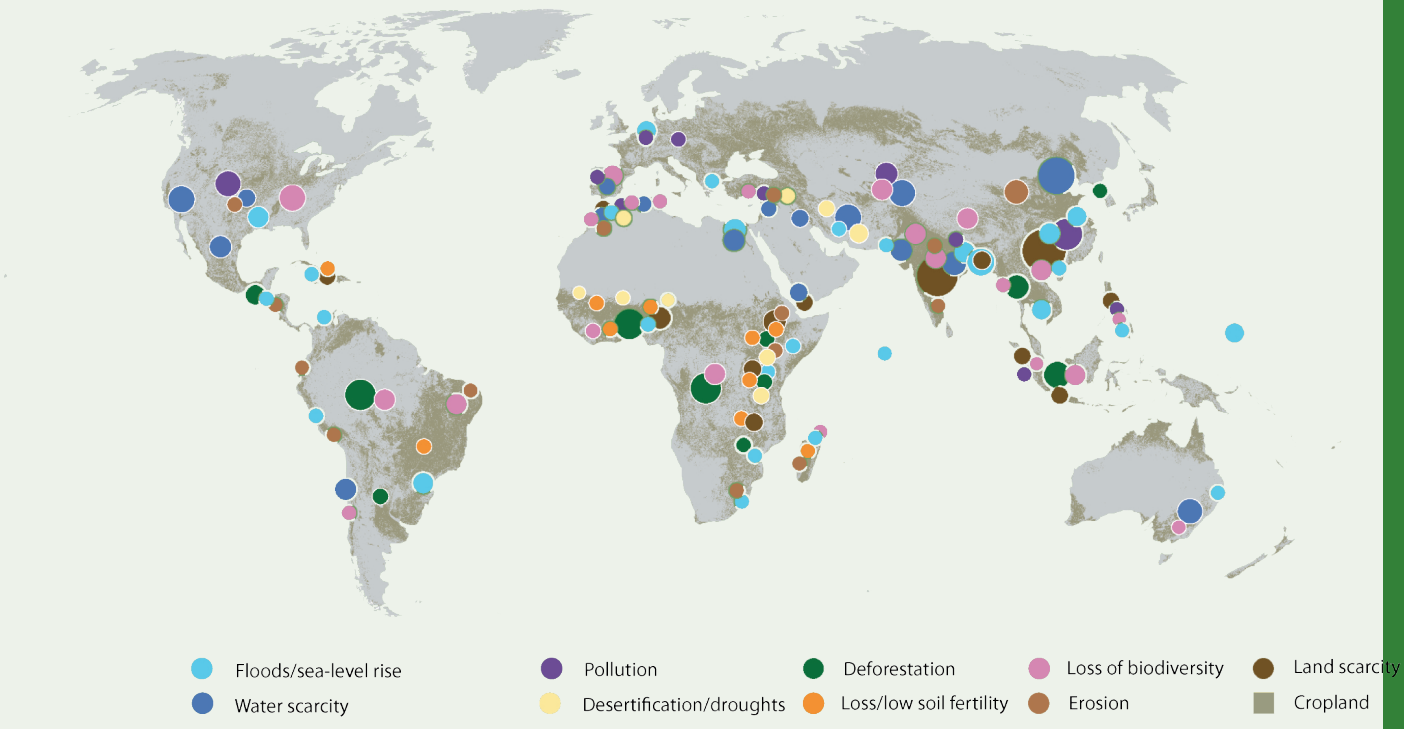
Source: FAO, Statistics Division (FAOSTAT).

CHART 93: **Forest characteristics (2010)**



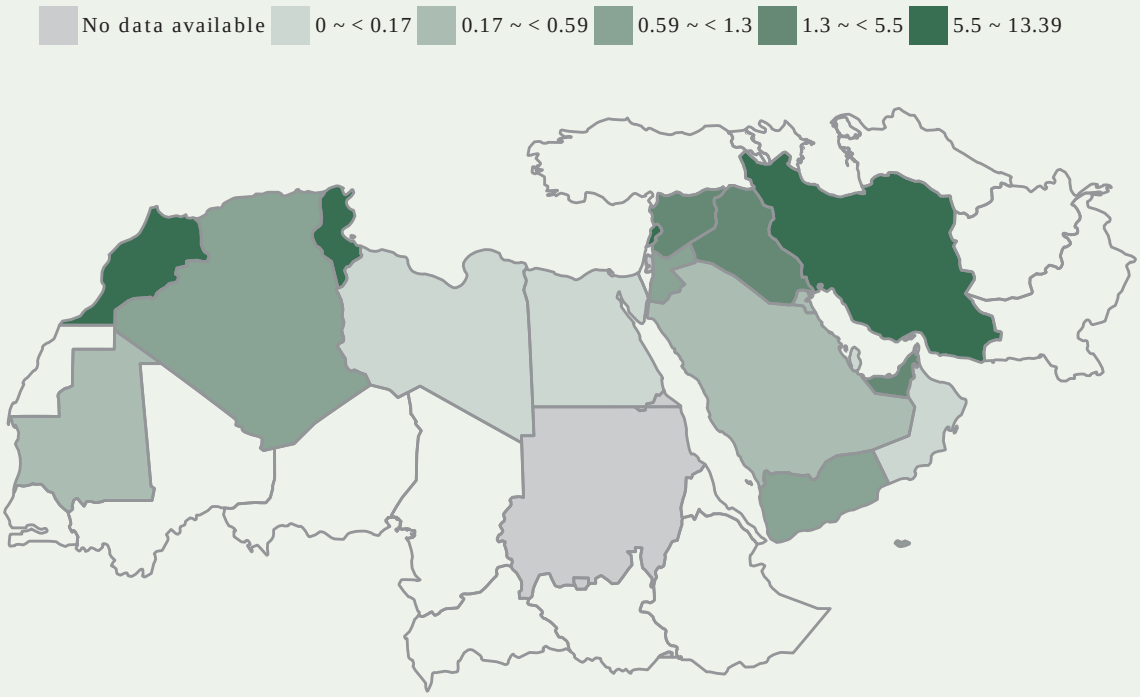
Source: Global Forest Resources Assessment.

MAP 53: **Global distribution of risks associated with main agricultural production systems**



Source: FAO, Fisheries and Aquaculture Department (fishery and aquaculture statistics).

MAP 54: **Forest area as share of total land area (percent, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

Global production of the main forest products was between one and four percent higher in 2011 than in 2010. This shows that countries are slowly coming out of recession. For example, production of wood-based panels and paper in 2011 was above the pre-crisis levels of 2007 and appeared to be growing relatively strongly in most regions. On the other hand, global production of industrial roundwood – despite a 3 percent increase from 2010 – has not yet reached its pre-crisis levels. In the markets for pulp and paper, overall growth was very modest over the period 2007–2011, with a growth trend of about 1 percent per year. However, this overall result conceals major differences at the regional level, with pulp and paper production and consumption increasing significantly in the Asia and the Pacific region, but generally declining in Europe and Northern America.

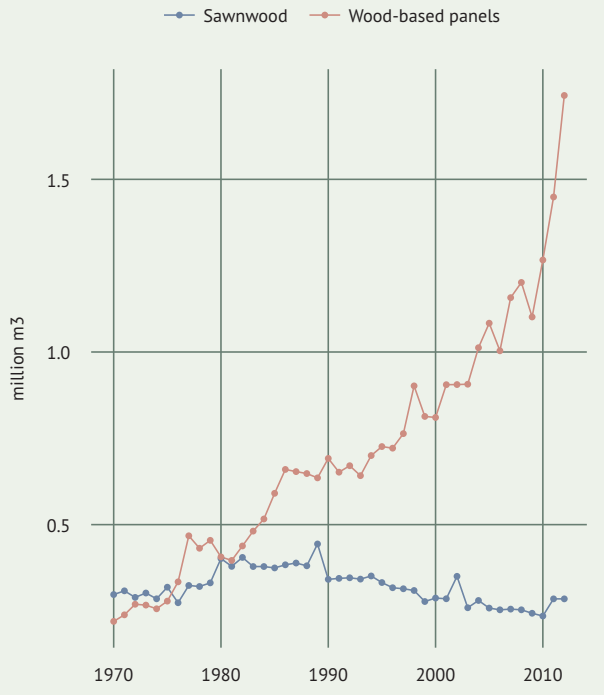
Because the Near East and North Africa has very limited forest resources, its share of international trade in forest products is low. In 2011-2012, the Near East and Africa produced 4 million cubic metres of industrial roundwood. The Islamic Republic of Iran produced almost all of wood-based panels in the region (1.4 million cubic metres out of a regional total of 1.7 cubic metres). The country was also the region's largest producer of wood pulp (246 000 tonnes), followed by Morocco (221 000 tonnes) and Egypt (41 000 tonnes). Saudia Arabia was the region's leading producer of paper and paperboard, producing 1.1 million tonnes out of a regional total of 3.2 million. Other major producers of paper and paperboard in the region are Egypt (660 000 tonnes) and the Islamic Republic of Iran (515 000 tonnes).

Although the region's production of forest products is relatively low, almost all countries in the region have seen modest growth in this area. Only the Islamic Republic of Iran and Lebanon have registered declines in production of most major forest products.

Further reading

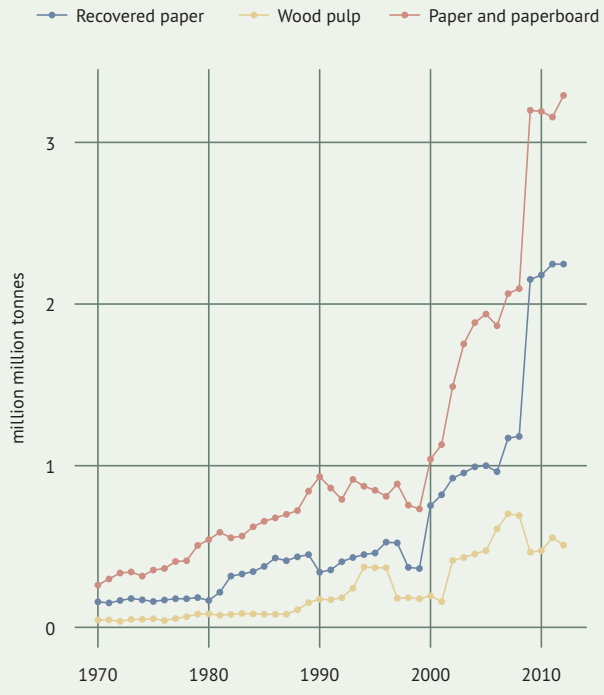
- FAO The State of the World's Land and Water Resources for Food and Agriculture (SOLAW) - Managing Systems at Risk 2011 (www.fao.org/nr/solaw/solaw-home/en/)
- UN International Year of Forests 2011 (www.fao.org/forestry/iyf2011/en/)
- FAO Land degradation assessment (www.fao.org/nr/land/degradation/en/)
- Global Forest Resources Assessment 2010 (www.fao.org/forestry/fra/fra2010/en/)

CHART 94: **Near East and North Africa production of selected forest products (1970-2012)**



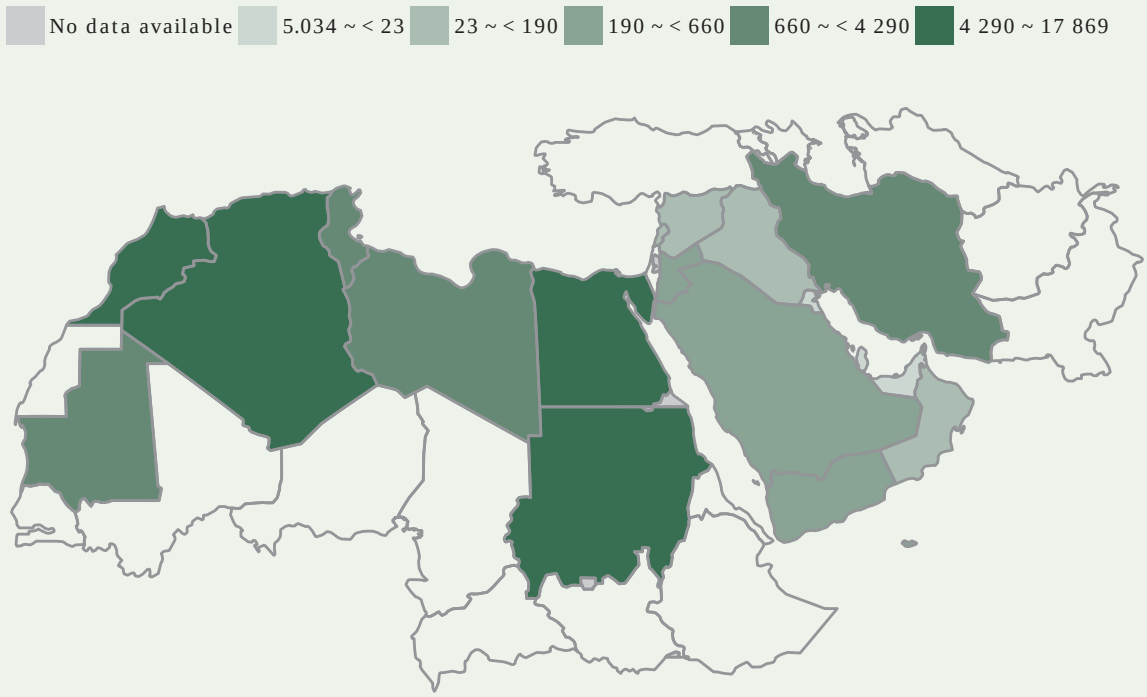
Source: FAO, Statistics Division (FAOSTAT).

CHART 95: **Near East and North Africa production of selected forest products (1970-2012)**



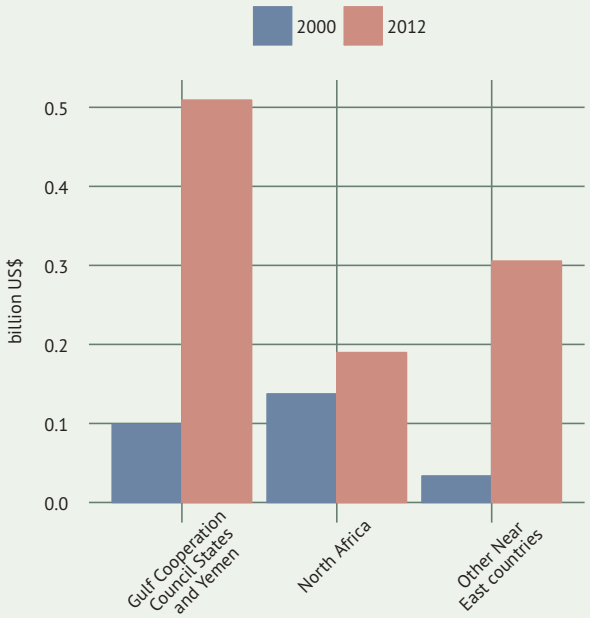
Source: FAO, Statistics Division (FAOSTAT).

MAP 55: **Roundwood production (thousand m^3, 2012)**



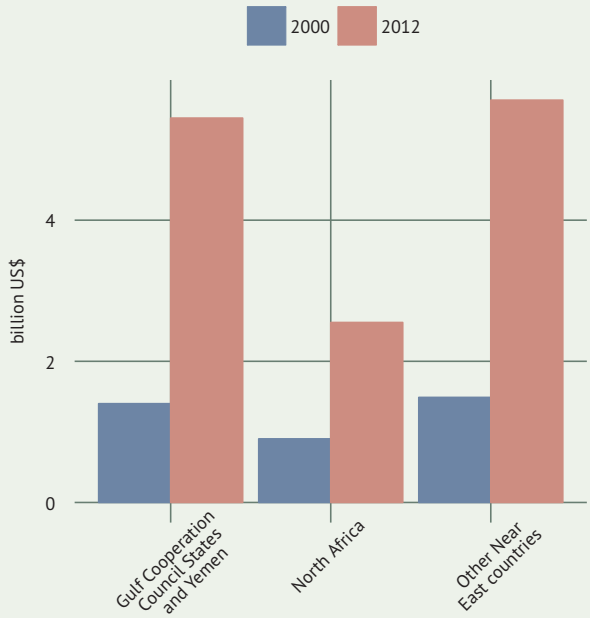
Source: FAO, Statistics Division (FAOSTAT).

CHART 96: **Exports of forest products (2000 and 2012)**



Source: FAO, Statistics Division (FAOSTAT).

CHART 97: **Imports of forest products (2000 and 2012)**



Source: FAO, Statistics Division (FAOSTAT).

Water

Global demand for water has risen sharply over the last century. Total annual water withdrawal (for agriculture, industries and municipalities) rose from less than 600 cubic kilometres per year at the beginning of the twentieth century, to 1 350 in the middle of the century and to more than 3 800 by the beginning of the twenty-first.

Agricultural water management is perhaps the most formidable challenge to sustainability facing the Near East and Africa Region. Per capita availability of renewable water resources in the region is currently around 1 050 cubic metres per person per year and is projected to drop by half by 2050. In contrast, the global average for per capita water availability is 8 900 cubic metres per year.

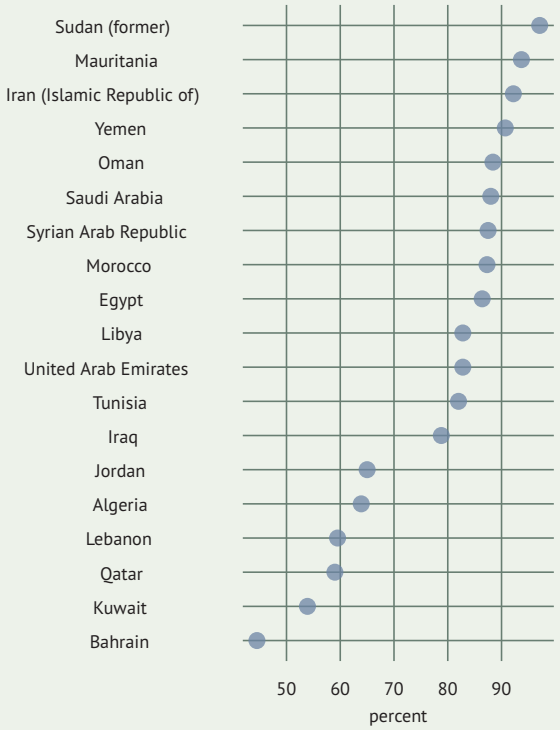
Agriculture's share in water use is already extremely high, accounting for about 78 percent of the region's total freshwater withdrawals. At the global level, roughly 65 percent of water withdrawals are used for agriculture. In 2000 in the former Sudan, agriculture accounted for more than 97 percent of water withdrawals. The most recent data from the Islamic Republic of Iran, Mauritania and Yemen show that more than 90 percent of water withdrawals in those countries are for agricultural use. In eight other countries in the region, the percent is higher than 80 percent. Only in Bahrain was the percentage of fresh water withdrawals higher for municipal uses than for agriculture.

In many countries in the region, the percentage of water withdrawn for agriculture exceeds 100 percent of the renewable water resources. Values over 100 percent indicate that more freshwater is withdrawn than the quantity annually renewed on a long-term basis, thus depleting the freshwater resources and using fossil groundwater. In this regard, Kuwait has by far the highest value at 2 460 percent, meaning that extensive use is made of fossil groundwater. The United Arab Emirates and Saudi Arabia follow, with 2 208 percent and 868 percent respectively. Oman is the only country on the Arabian Peninsula that uses less than 100 percent of its renewable water resources for agriculture. Other countries that, as of 2010, were using more than 100 percent of their renewable water resources for agriculture are Libya (512 percent) and the Islamic Republic of Iran (103 percent). Although Mauritania uses almost all its water withdrawals for agricultural purposes, the country uses only 13.2 percent of its renewable freshwater resources for agriculture. Lebanon uses the second lowest percentage (17.3 percent).

Further reading

- General summary Middle East region Explanatory notes(http://www.fao.org/nr/water/aquastat/regions/meast/index.stm#a15)
- FAO The State of the World's Land and Water Resources for Food and Agriculture (SOLAW) - Managing Systems at Risk 2011 (www.fao.org/nr/solaw/solaw-home/en/)
- FAO Water (www.fao.org/nr/water/)
- FAO AQUASTAT (www.fao.org/nr/aquastat/)

CHART 98: **Freshwater withdrawal by agricultural sector, shares of total (2000-2010*)**

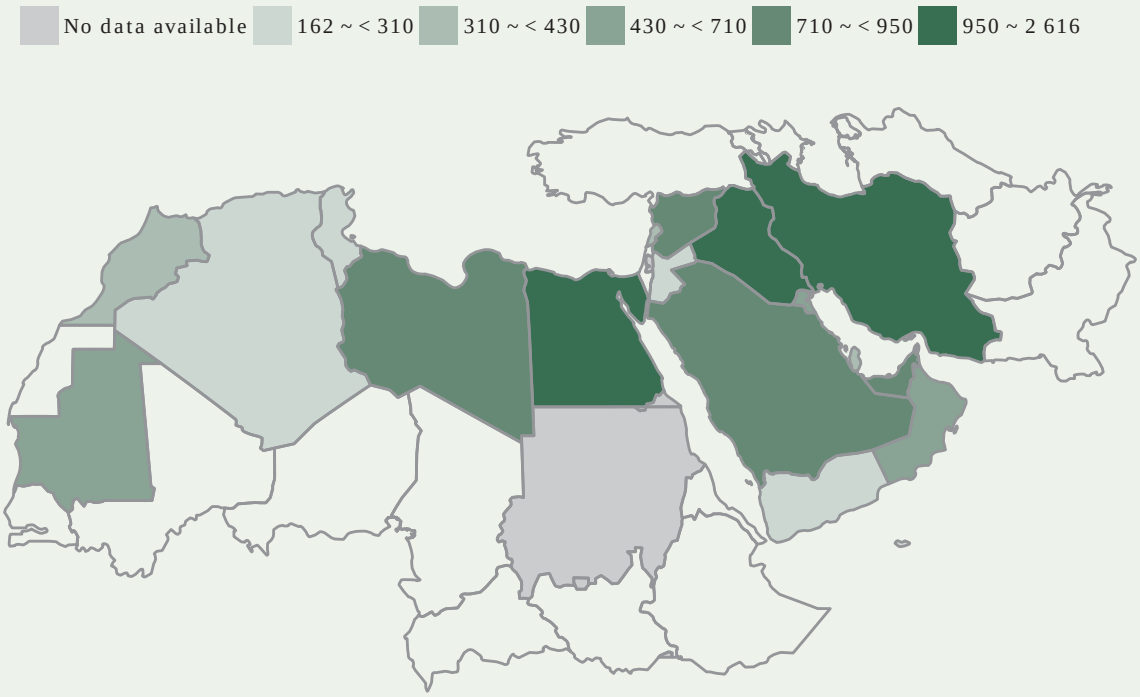


Source: Land and Water Division (AQUASTAT).

CHART 99: **Freshwater withdrawal by industrial sector, shares of total (2000-2010*)**

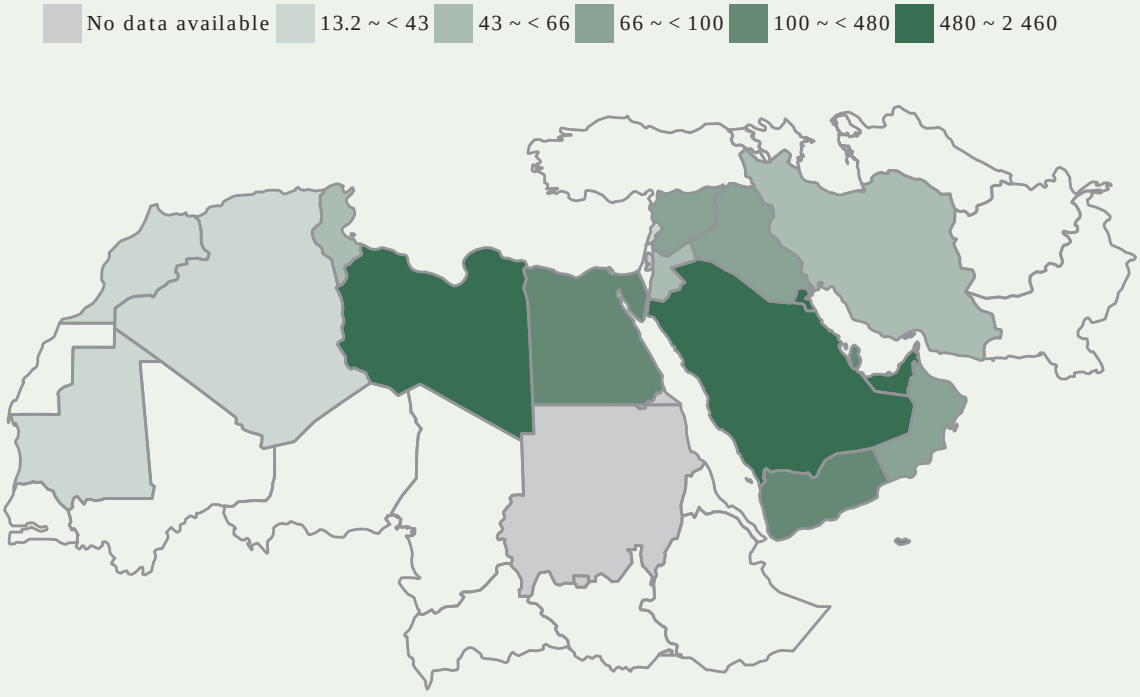
Source: Land and Water Division (AQUASTAT).

MAP 56: **Total water withdrawal per capita (m^3/yr/cap, 2000-2010*)**



Source: Land and Water Division (AQUASTAT).

MAP 57: **Renewable freshwater resources withdrawn by agriculture (percent, 2000-2010*)**



Source: Land and Water Division (AQUASTAT).

Biodiversity

Biodiversity concerns the degree of variation of life forms within a given ecosystem and serves as a measure of the health of the environment. Biodiversity for food and agriculture includes the components of biological diversity that are essential for feeding human populations and improving the quality of life. It applies to the genetic, species and ecosystem levels and includes the variety and variability of ecosystems, animals, plants and microorganisms that are necessary to sustain human life and the key functions of ecosystems. It is the result of thousands of years of farming and breeding activities, land and forest utilization, and fisheries and aquaculture activities, combined with millions of years of natural selection.

The North African coastal region of the Mediterranean is part of the centre of origin for many crops. The Near East is also one of the centres of domestication for several livestock species, with a high genetic diversity remaining today. In 2012, there were 219 mammal species, 209 bird species and 460 aquatic in threat of extinction in the region.

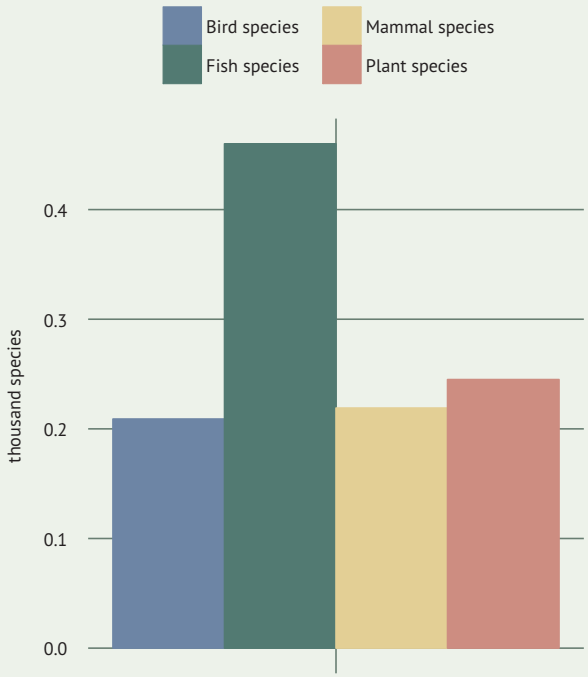
Countries in the region have made progress in protecting vulnerable ecosystems over the last decades. Between 1990 and 2010, the percentage of land covered by nationally protected areas doubled, increasing from 3.9 percent to 7.9 percent. This is, however, less than the global average, which rose from 8.6 percent to 11.6 percent during the same period. In 2012, Saudi Arabia had by far the greatest percentage of protected land (31.3 percent), an increase of more than 20 percent from 1990. Oman, which had no protected areas in 1990, is the only other country in the region where the percentage of protected areas in 2012 was higher than 10 percent.

In 1990, 13 countries in the region had no nationally marine protected areas at all. Mauritania has by far the highest percentage of protected waters (32.1 percent), a figure that has remained largely unchanged since 1990. Jordan has done the most to protect its territorial waters. In 1990, none were under protection, but by 2010, the country had protected 30 percent of its territorial waters.

Further reading

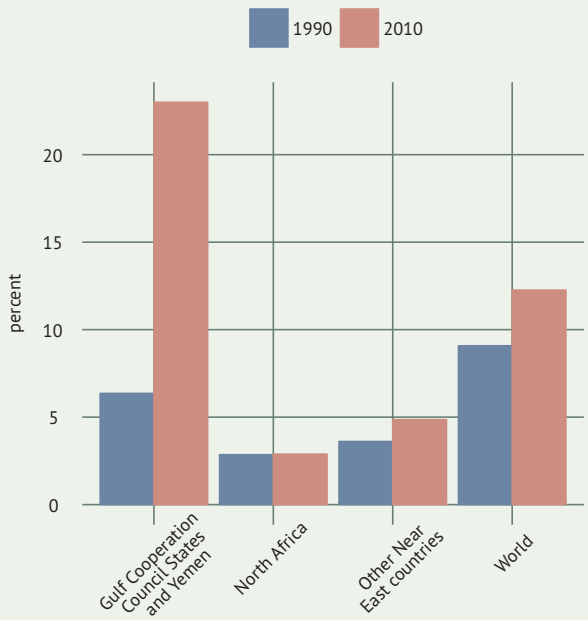
- FAO Biodiversity (www.fao.org/biodiversity)
- UN International Year of Biodiversity 2010 (www.fao.org/biodiversity/2010-international-year-of-biodiversity)
- FAO/INFOODS: Nutrition and Biodiversity (www.fao.org/infoods/infoods/food-biodiversity/en/)

CHART 100: **Species threatened in Near East and North Africa (2012)**



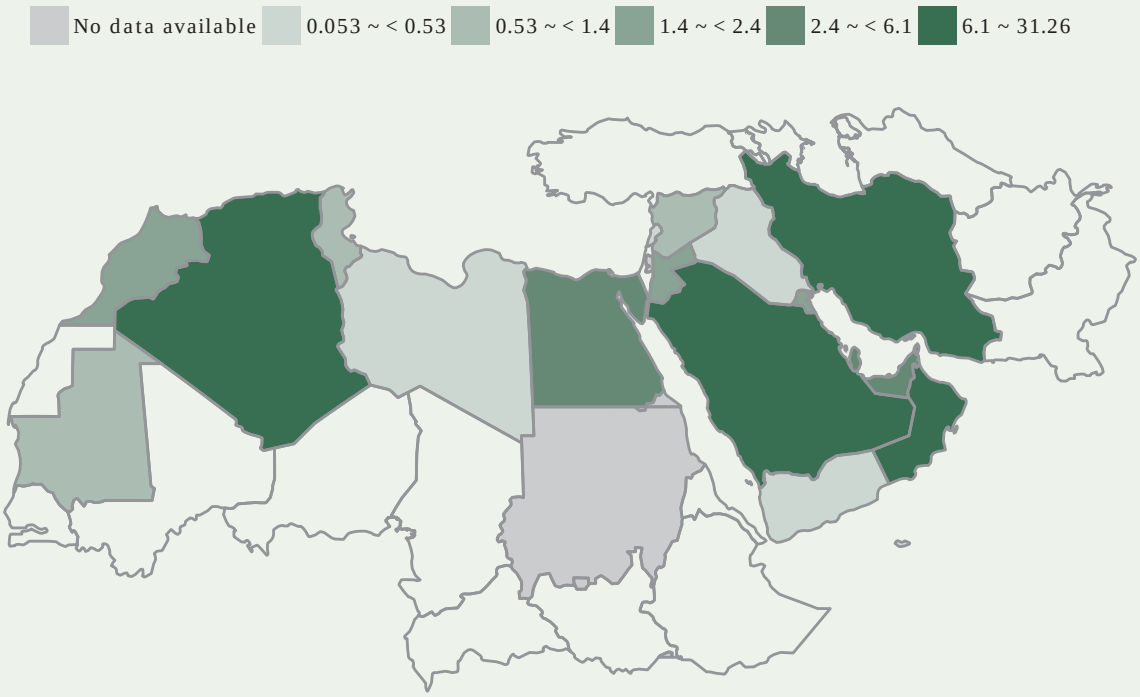
Source: World Bank (WDI).

CHART 101: **Terrestrial protected areas, share of total land area (1990 and 2010)**



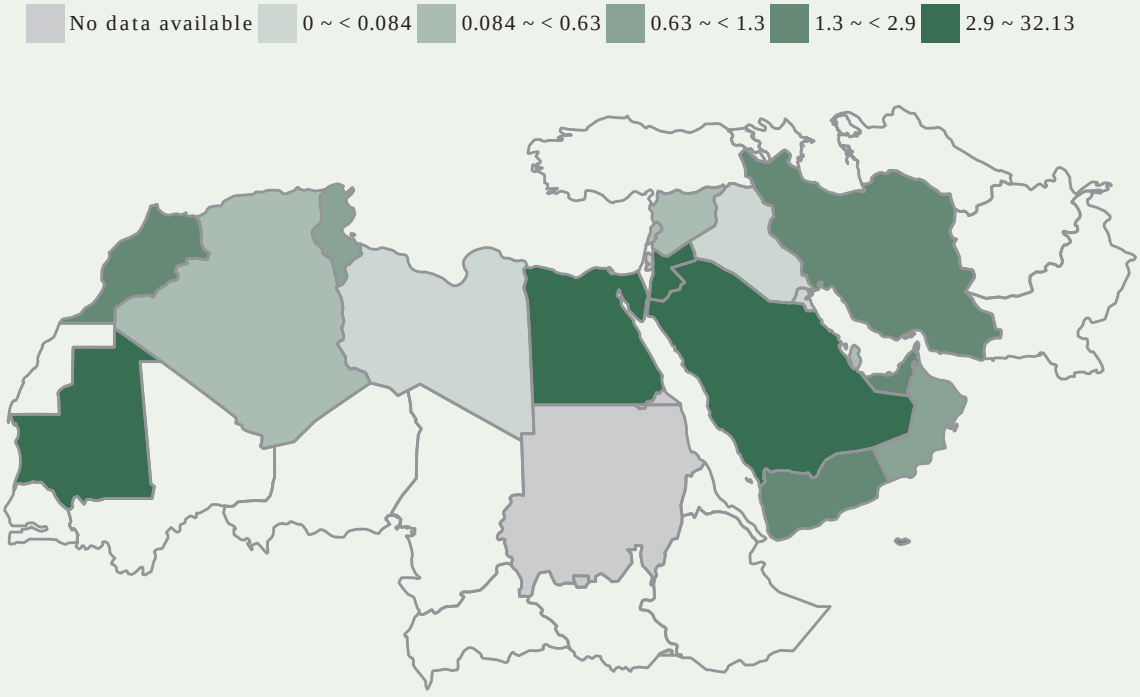
Source: World Bank (WDI).

MAP 58: **Terrestrial protected areas, share of total land area (percent, 2010)**



Source: World Bank (WDI).

MAP 59: **Marine protected areas, share of territorial waters (percent, 2010)**



Source: World Bank (WDI).

Agri-environmental indicators

Agri-environmental indicators are quantitative tools that help assess and quantify the status of and trends in the environmental performance of agriculture. They facilitate the identification of effective management solutions and policy measures for avoiding potential damage, including soil and water degradation, air pollution and loss of biodiversity. Most of the data presented in this section are from a selection of core indicators originally developed by OECD and Eurostat for their member countries, and recently expanded by FAO to achieve global coverage.

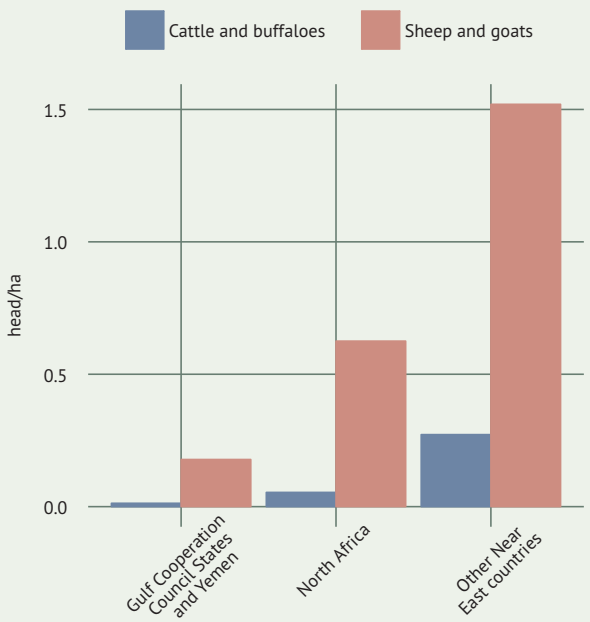
Changes in land cover have caused the most pressing environmental issue in recent decades. In the Near East and North Africa region as a whole, the percentage of agricultural land to total land area is 33.8 percent. Saudi Arabia has the largest percentage of agricultural land (80.6 percent) almost all of which is meadows and pastures. The Syrian Arab Republic also has a large percentage of land dedicated to agriculture (75.5 percent), nearly 60 percent of which is meadows and pastures. In Lebanon, Morocco and Tunisia the percentage of agricultural land is over 60 percent.

The Near East and North Africa has the highest density of sheep and goats per hectare of land of any of FAO's regions. The highest densities are found in the GCC countries, with Qatar registering the highest density of sheep (6 per hectare) and United Arab Emirates the highest density of goats. As poultry production has expanded, so too have poultry densities, and the region now has the highest density of poultry of any of FAO's regions (6.9 birds per hectare). Poultry densities are especially pronounced in the smaller GCC countries. For example, in Qatar poultry densities have almost doubled since 2000, moving from 63.8 to 121.2 birds per hectare. Kuwait has the highest poultry density in the region at 177.8 birds per hectare. In North Africa, Tunisia has the highest density of poultry (8.3 birds per hectare) and in the Oriental Near East, Lebanon has the highest (59.6 birds per hectare). Only Oman recorded a reduction in poultry densities between 2000 and 2011. In contrast, the region has the lowest cattle and buffalo density (0.1 head per hectare) of any of FAO's regions. Egypt (2.3 head per hectare) and Bahrain (1.2 head per hectare) have the highest cattle and buffalo densities.

Further reading

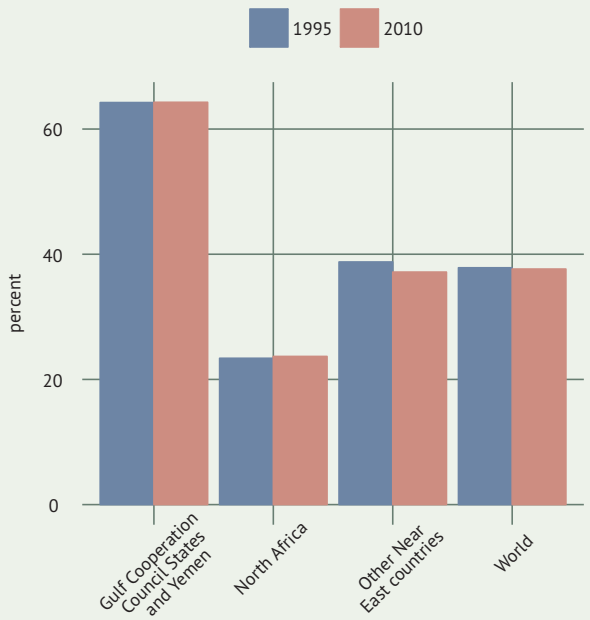
- OECD (www.oecd.org/agriculture/env/indicators)
- EUROSTAT (http://epp.eurostat.ec.europa.eu/portal/page/portal/agri_environmental_indicators/introduction)

CHART 102: **Livestock density per ha of agricultural land, cattle and buffaloes, sheep and goats (2011)**



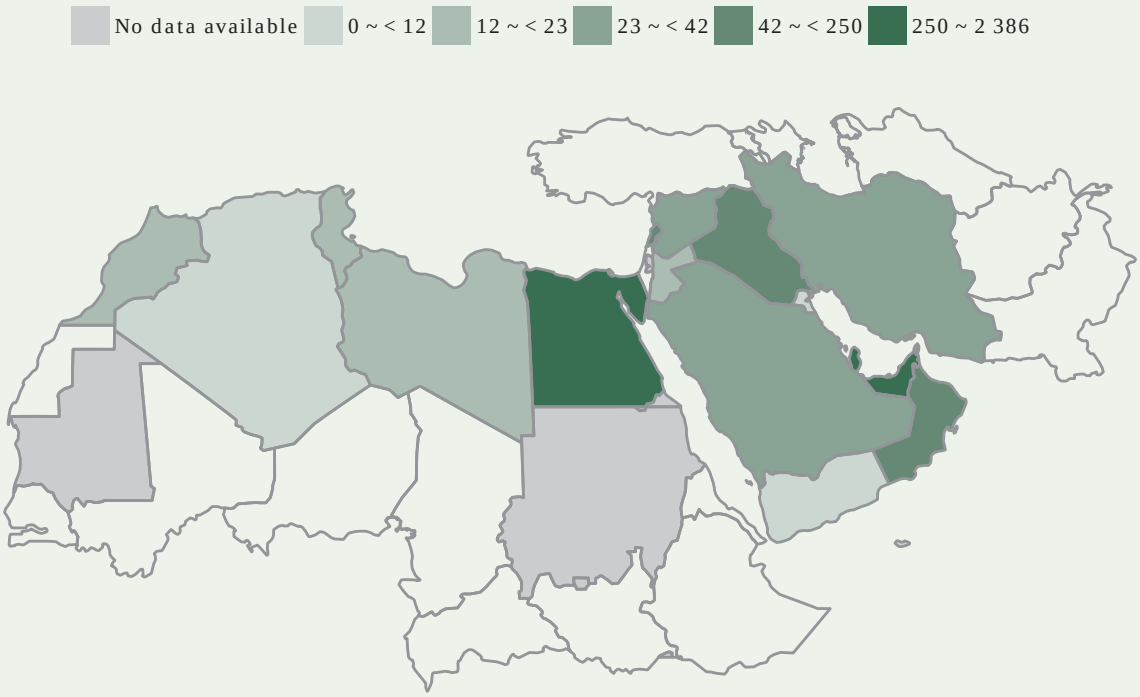
Source: FAO, Statistics Division (FAOSTAT).

CHART 103: **Agricultural land, share of total land area (1995 and 2010)**



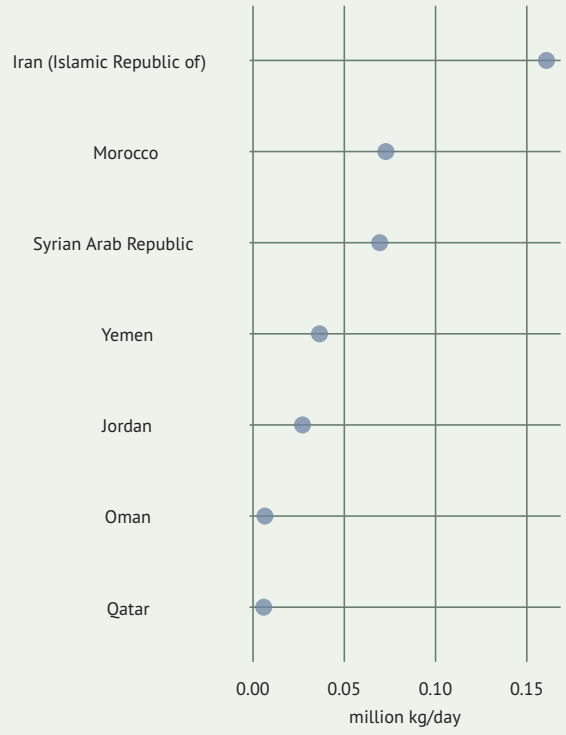
Source: FAO, Statistics Division (FAOSTAT).

MAP 60: **Nitrogen fertilizer consumption per ha of arable area and permanent crops (kg/ha, 2009)**



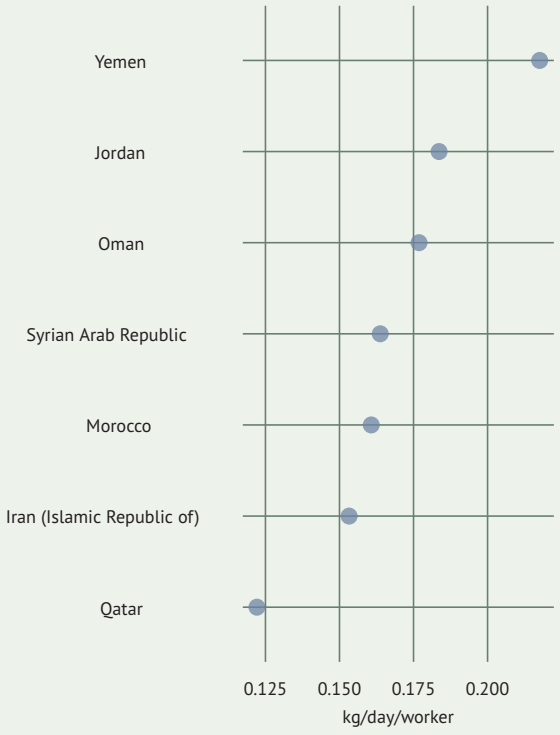
Source: FAO, Statistics Division (FAOSTAT).

CHART 104: **Organic water pollutant (BOD) emissions (2005)**



Source: World Bank (WDI).

CHART 105: **Organic water pollutant (BOD) emissions per worker (2005)**



Source: World Bank (WDI).

Organic farming

Organic agriculture is a production management system that promotes and enhances ecosystem health, including biological cycles and the biological activity of soil. It is based on minimizing the use of external inputs and represents a deliberate attempt to make the best use of local natural resources. Methods are selected to minimize pollution of air, soil and water. Organic agriculture comprises a range of land, plant and animal management procedures, circumscribed by a set of rules and limits that are usually enforced by inspection and certification schemes. Synthetic pesticides, mineral fertilizers, synthetic preservatives, pharmaceuticals, genetically modified organisms, sewage sludge and irradiation are prohibited in all organic standards.

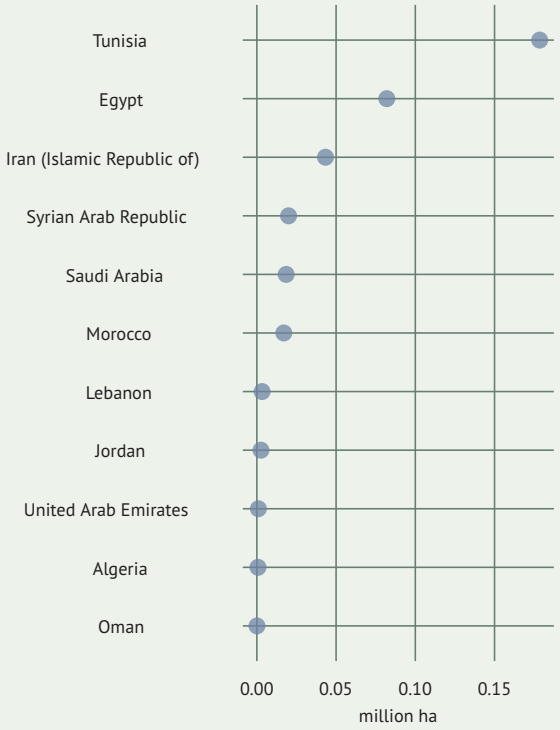
The land area under organic management has been steadily increasing worldwide for several decades, reaching 37.2 million ha in 2011, up from 11 million ha in 1999. The total value of organic food and beverages sold in 2011 was almost US$63 billion, some US$4 billion higher than in 2010. The organic market has grown considerably since 2002, and – unlike the rest of the food sector – has continued to grow, despite the global economic slowdown.

Although, data are not available for every country in the region, it is apparent that organic agriculture is not widespread in the Near East and North Africa. In 2011, most countries had less than half of one percent of their agricultural area dedicated to organic agriculture. Only in two countries, Egypt (2.2 percent) and Tunisia (1.8 percent), was the percentage of land used for organic agriculture higher than one percent.

Further reading

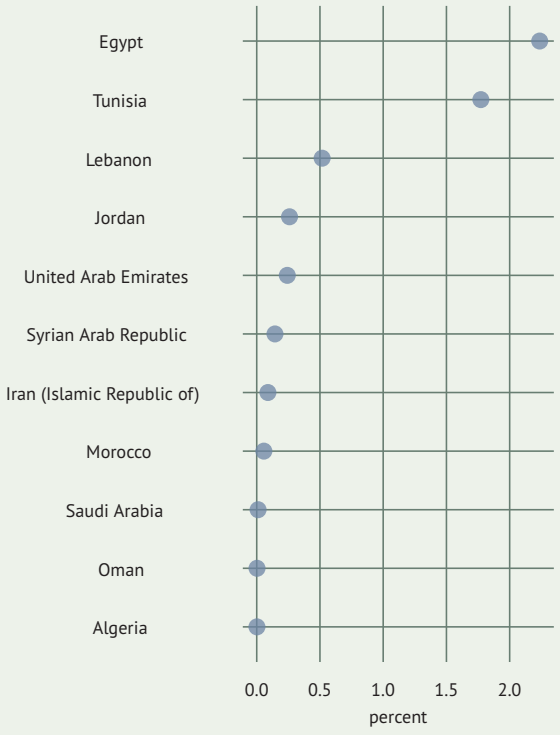
- FAO Organic Agriculture (www.fao.org/organicag/en/)
- FAO Organic Agriculture and Environmental Stability of the Food Supply - FAO (ftp://ftp.fao.org/docrep/fao/meeting/012/ah950e.pdf)

CHART 106: **Organic agriculture area (2011)**



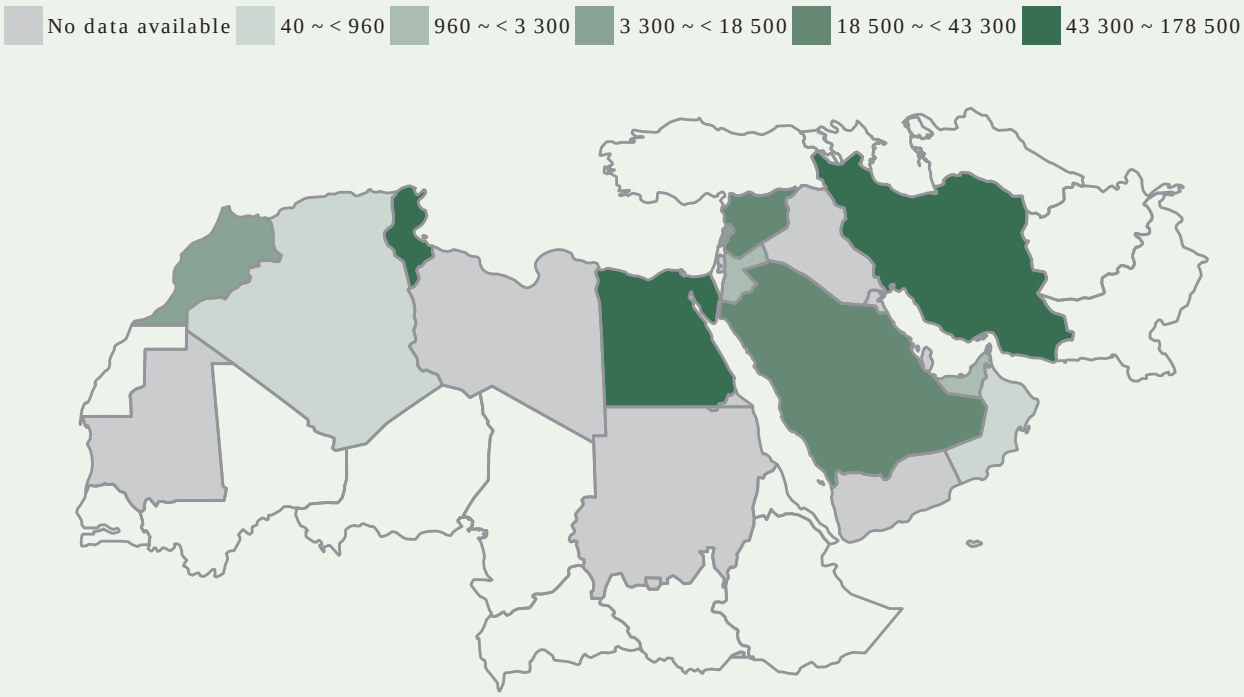
Source: FAO, Statistics Division (FAOSTAT).

CHART 107: **Organic agriculture, share of total agricultural area (2011)**



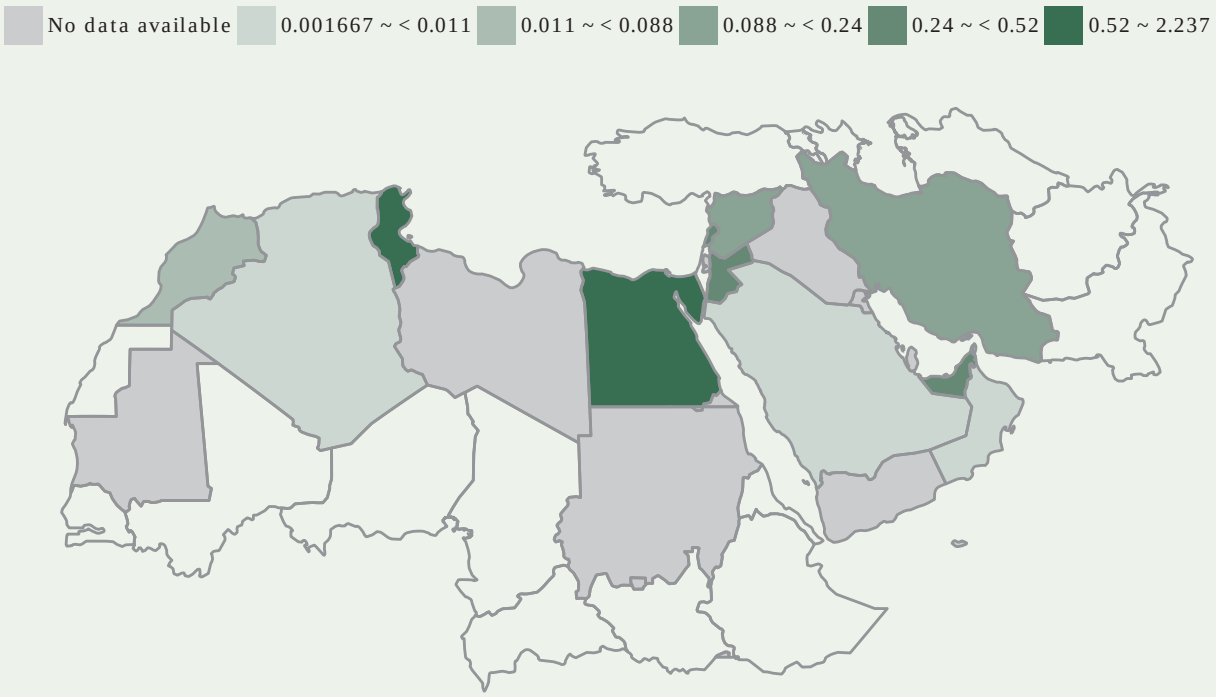
Source: FAO, Statistics Division (FAOSTAT).

MAP 61: **Organic agriculture area (ha, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

MAP 62: **Organic agriculture, share of total agricultural area (percent, 2011)**



Source: FAO, Statistics Division (FAOSTAT).

Bio-based economy

Agriculture is playing an increasingly important role in the bio-based economy, providing feedstocks for the production of liquid fuels, chemicals and advanced materials, such as natural fibre composites for industry. Biological science has the potential both to make incremental efficiency improvements and to bring radical change in a wide range of sectors, including through the use of enzymes, fermentation and organisms for processes and products in the energy, chemical, pharmaceutical, food, textile, and pulp and paper industries.

Much of this potential is already being realized, especially through the rapid growth of the biofuel sector. Currently, ethanol is produced from easily fermentable agricultural feedstocks such as sugar cane, sugar beet, cereal grains and cassava. Biodiesel is produced from vegetable oil (typically rapeseed, soybean and palm oils) using a process of chemical modification.

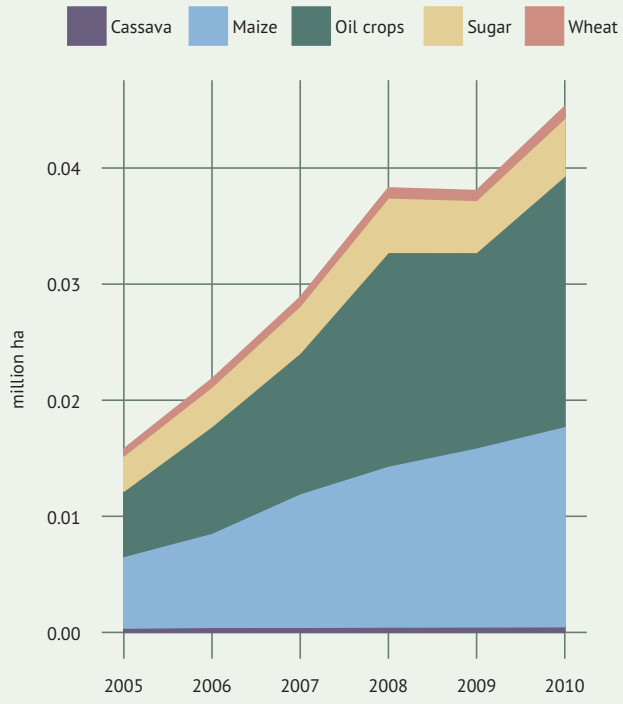
In 2010, global production of biofuels reached a record 195 billion litres, a 17 percent increase from 2009. Various factors including an increase in new laws and mandates in Argentina, Brazil, Canada and the United States of America, an upswing in the global economic, and the high prices of fossil fuels has spurred this growth.

The Near East and North Africa region produces a very small share of the world's biofuel. Production in the region was 4.2 kilotonnes in 2009, which marks a modest increase over the 2000 production level of 3.5 kilotonnes. Two countries account for three-quarters of the region's biofuel production: Egypt (1.6 kilotonnes) and Tunisia (1.3 kilotonnes). In both countries production has increased only slightly since 2000.

Further reading

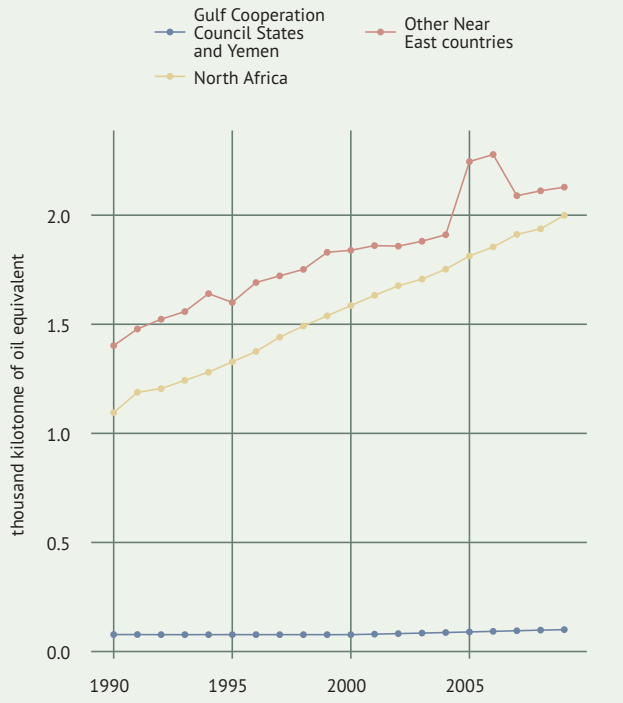
- FAO Bioenergy (www.fao.org/bioenergy)
- UN International Year of Natural Fibres (www.naturalfibres2009.org/en/index.html)

CHART 108: **World area under bioenergy crops (2005-2010)**



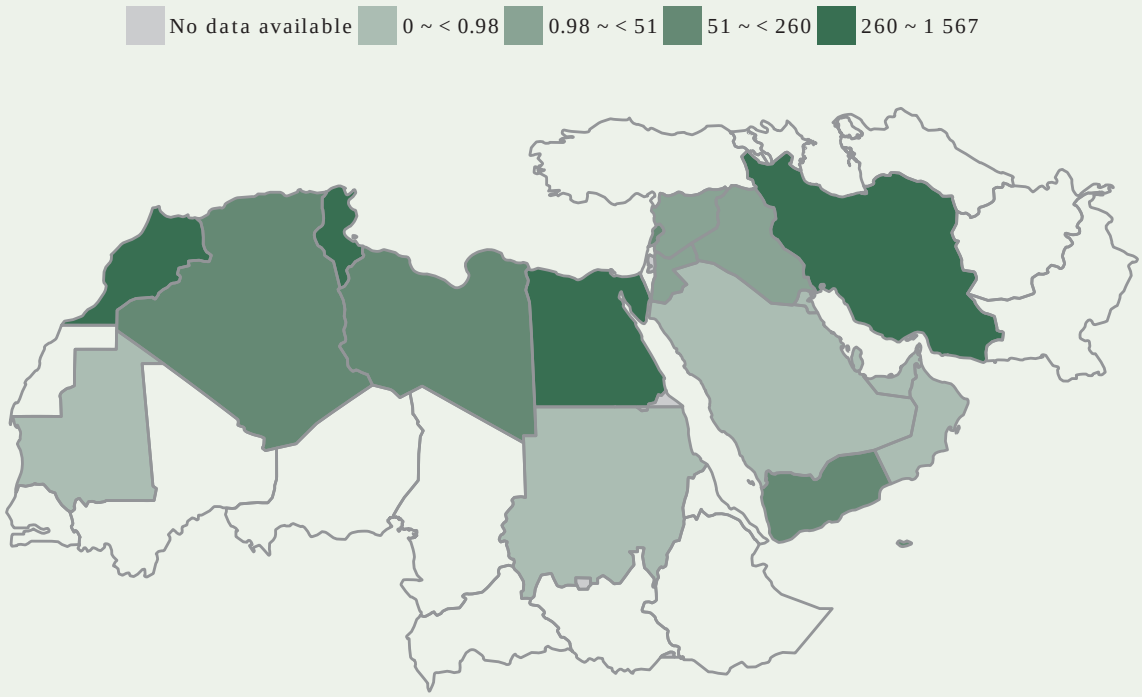
Source: FAO.

CHART 109: **Biofuel production (1990-2009)**



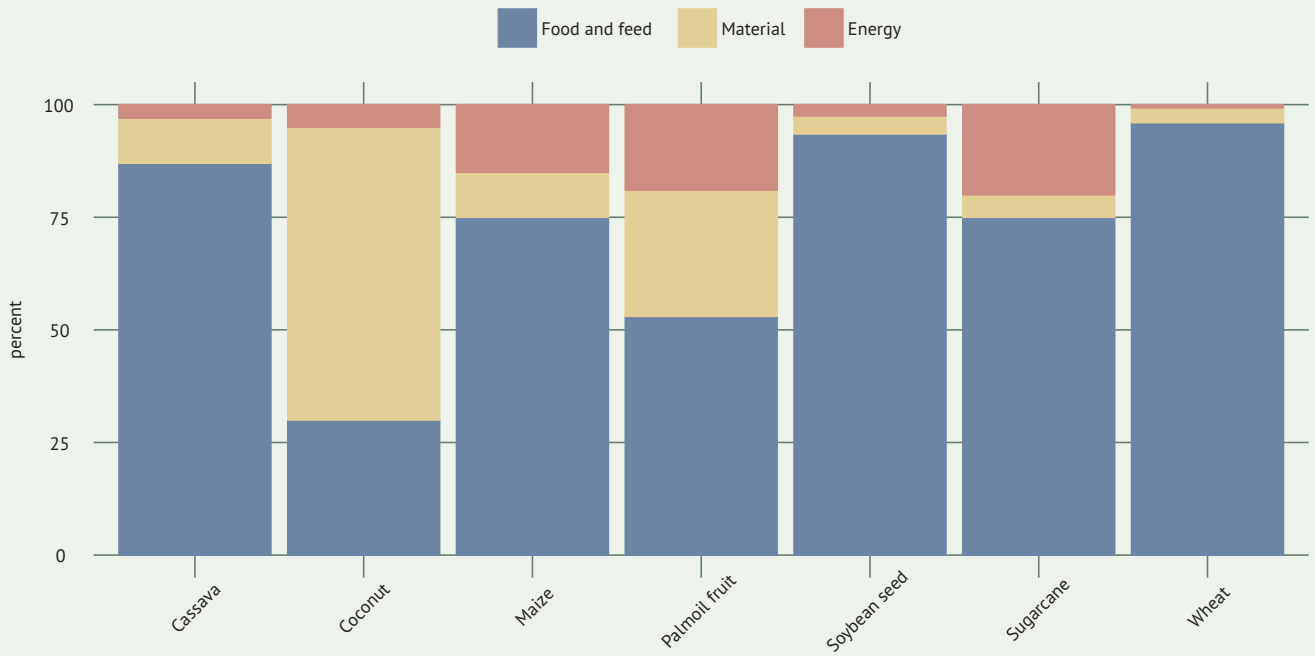
Source: IEA.

MAP 63: **Biofuel production (kilotonne of oil equivalent, 2009)**



Source: IEA.

CHART 110: **Share of food crop usage in world bio-based economy (2009)**



Source: FAO, Statistics Division.

Climate change

The severity and pace of climate change is becoming more acute. Current global surface temperatures are now about 0.6° C higher than the average for the last century. This increase is consistent with model predictions of the effects of rising atmospheric concentrations of carbon dioxide (CO_2) and other GHGs, which are a result of human activity. Also in line with the same model simulations, the observed warming is greater at higher latitudes – particularly in the northern hemisphere, where most land masses are located – than in the tropics. At the same time, extreme temperature events are becoming more frequent, causing increasing damage to ecosystems, agriculture and human health.

These warming trends will continue if emissions of anthropogenic GHGs continue to follow a business-as-usual scenario, with global atmospheric surface temperatures predicted to rise by at least 4° C by 2100. Moreover, the hydrological cycle will most likely become stronger because of increased rates of evaporation from land and sea surfaces. As a result, rainfall may increase in the tropics and at higher latitudes, but decrease over large continental interiors. Areas of the world, such as the Near East and North Africa, that are already facing critical water scarcity, are expected to become drier and hotter.

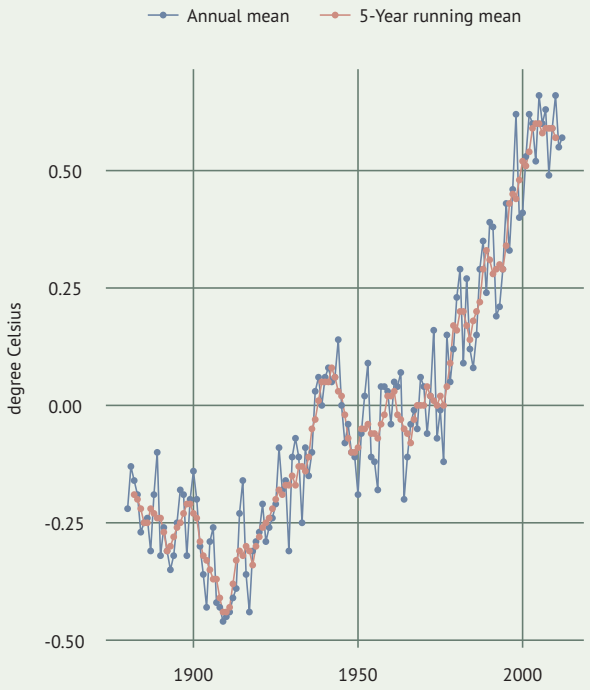
The Near East and North Africa region is one of the most vulnerable regions to climate change. Climate change puts food security at risk and jeopardizes the livelihoods of large segments of the population. Water shortages, already a problem in most countries of the region, will be further exacerbated by climate change. Agriculture in the Near East is likely to suffer major losses due to high temperature, droughts, floods and soil degradation. In Egypt alone, climate change could decrease the national production of rice by 11 percent and soybeans by 28 percent by 2050, compared with their production under current conditions.

In the entire Near East and North Africa region, rangelands and livestock are likely to be affected by climate change as they are located mostly in marginal areas. These changes will have an impact on nomadic systems and on livestock pests and diseases. Increases in the outbreak of epidemic are also possible. Soil moisture depletion will likely affect the productivity of major forestry species and lead to declines and extinctions of sensitive species, increased fire risks, and changes in the spread patterns of pests and diseases. The resulting changes in habitats will induce changes in wildlife populations. The combined effects of human actions, nature, and climate change could lead to further degradation and desertification in many parts of the region.

Further reading

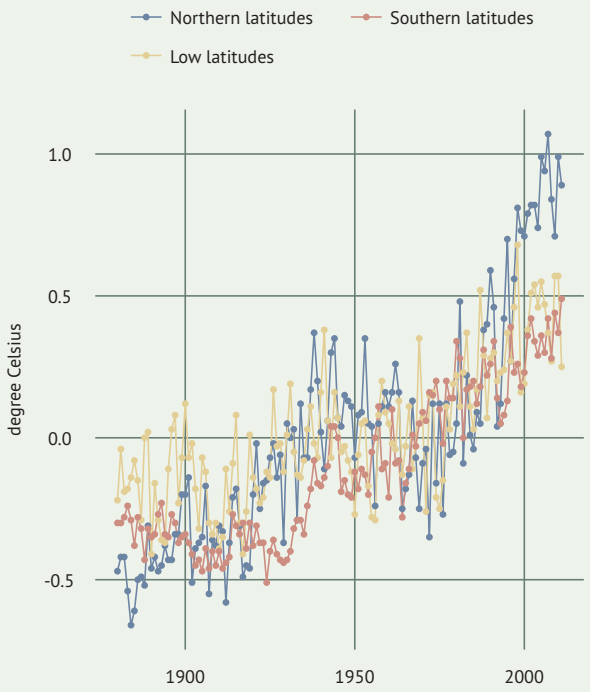
- FAO Climate Change, Water and Food Security 2011
- FAO Energy-smart food for people and climate (www.fao.org/docrep/014/i2454e/i2454e00.pdf)
- Intergovernmental Panel on Climate Change (IPCC) (www.ipcc.ch/)
- NASA (http://data.giss.nasa.gov/gistemp/)

CHART 111: **Global land-ocean temperature index, base period 1951-1980 (1880-2012)**



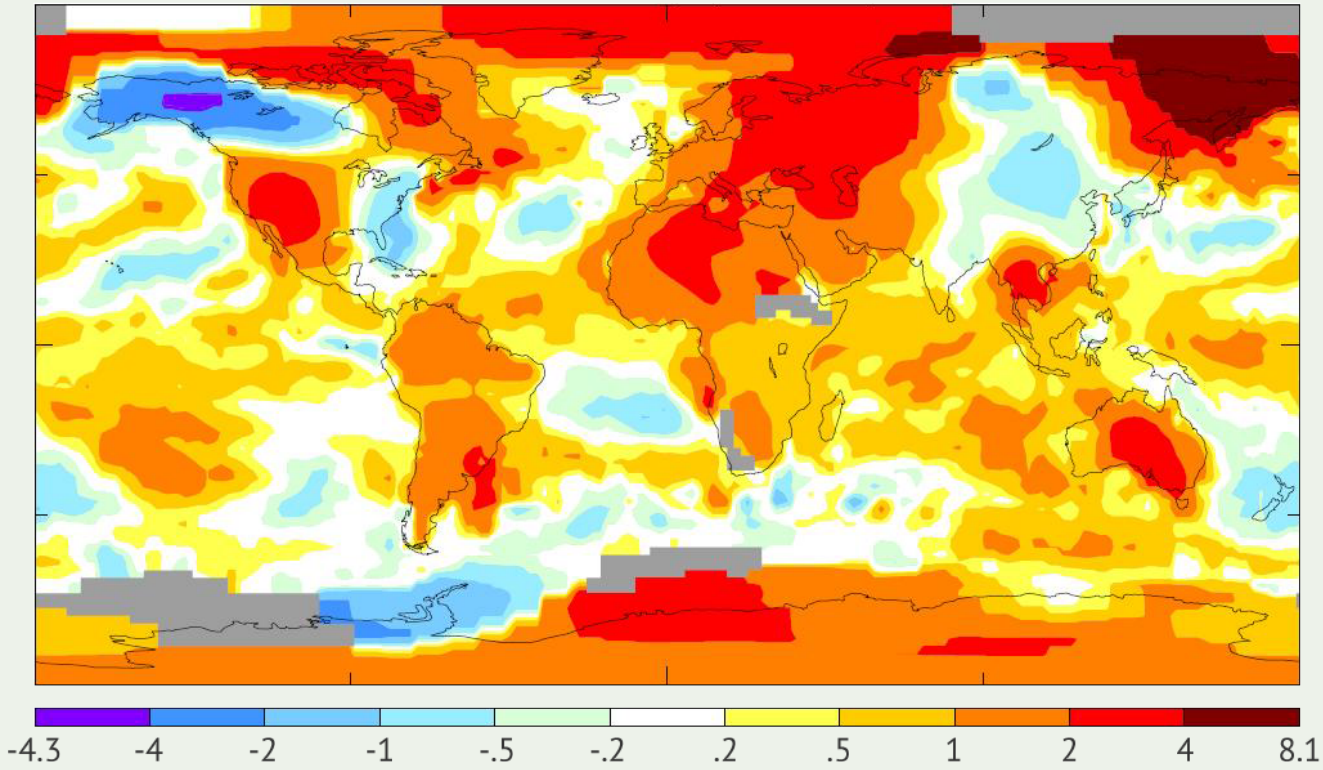
Source: NASA.

CHART 112: **Global land-ocean temperature index for three latitude bands, base period 1951-1981 (1880-2011)**



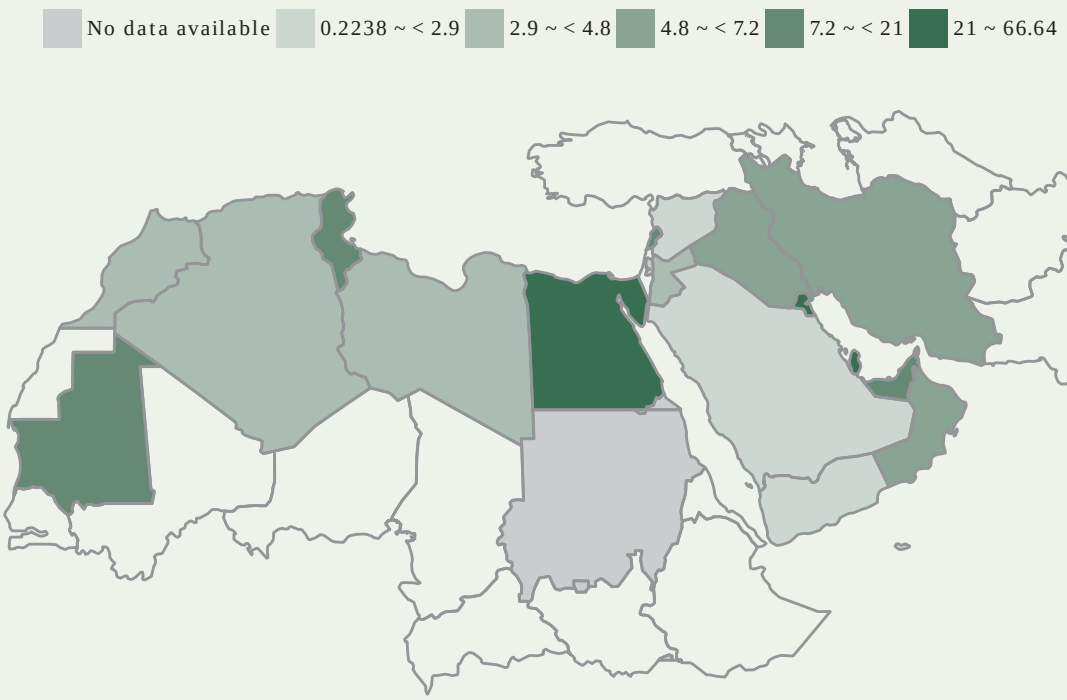
Source: NASA.

MAP 64: **Surface temperature, anomaly versus 1951-1980 (degrees Celsius, 2012)**



Source: NASA, GISS Surface Temperature Analysis.

MAP 65: **Share of population living in areas with elevation of 5 meters or less (percent, 2000)**



Source: World Bank (WDI).

Greenhouse gas emissions

GHG emissions from agriculture, including crop and livestock production, forestry and associated land-use changes, are responsible for a significant fraction of human-induced emissions – up to 30 percent globally, according to the Intergovernmental Panel on Climate Change (IPCC). GHG emissions presented in this section are available from the FAOSTAT Emissions database, which was launched in 2013.

GHG emissions from agriculture are dominated by non-CO_2 gases such as methane (CH_4) and nitrous oxide (N_2O), which are produced during crop and livestock production and management. These include emissions from the following categories: enteric fermentation, manure management systems, synthetic fertilizers, manure applied to soils, manure left on pastures, crop residues, rice cultivation, cultivated organic soils and burning of crop residues.

The region contributes a relatively small amount of the global agricultural emissions. As is the case all over the world, the largest source of agricultural GHG emissions in the Near East and North Africa comes from enteric fermentation (57 726 gigagrams of CO_2 equivalent), the lowest amount of any of FAO's regions. The second highest source of agricultural GHG emissions is manure left on pasture (37 525 gigagrams of CO_2 equivalent). In the region, the Islamic Republic of Iran produces the most emissions from these two sources. Synthetic fertilizers are the region's third highest source of agricultural emissions, with Egypt accounting for more than half of the total (9 198 gigagrams of CO_2 equivalent).

Changes in carbon stocks and ecosystem functions linked to human activities, such as land-use change and land management, determine the GHG emissions and removals. Activities that increase terrestrial carbon stocks over time lead to removal of CO_2 from the atmosphere, while activities that decrease total carbon stocks lead to net CO_2 and non-CO_2 emissions. Global GHG emissions from net forest conversion decreased from 3.6 to 2.6 gigatonnes of CO_2 per year per year between 1990 and 2010.

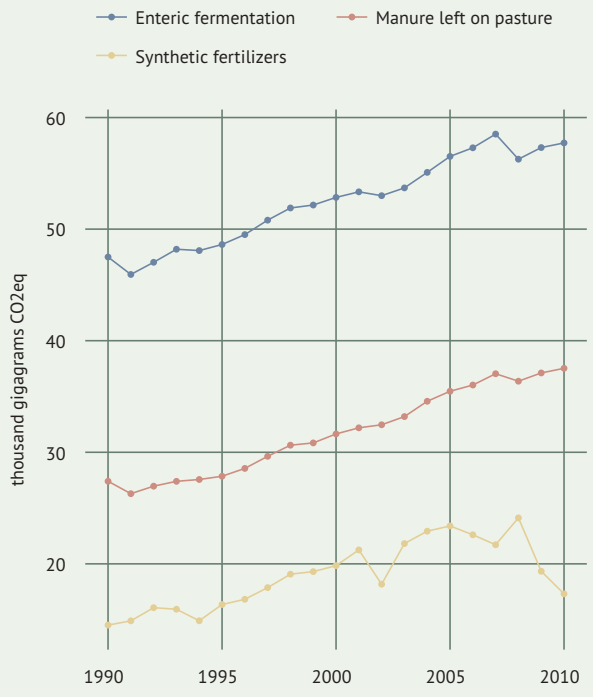
Further reading

- IPCC (www.ipcc.ch/)
- FAOSTAT (http://faostat.fao.org/)
- Monitoring and Assessment of GHG Emissions and Mitigation Potentials in Agriculture, MICCA (www.fao.org/climatechange/micca/ghg/en/)

CHART 113: **Net emissions/removals from net forest conversions (1990, 2000 and 2010)**

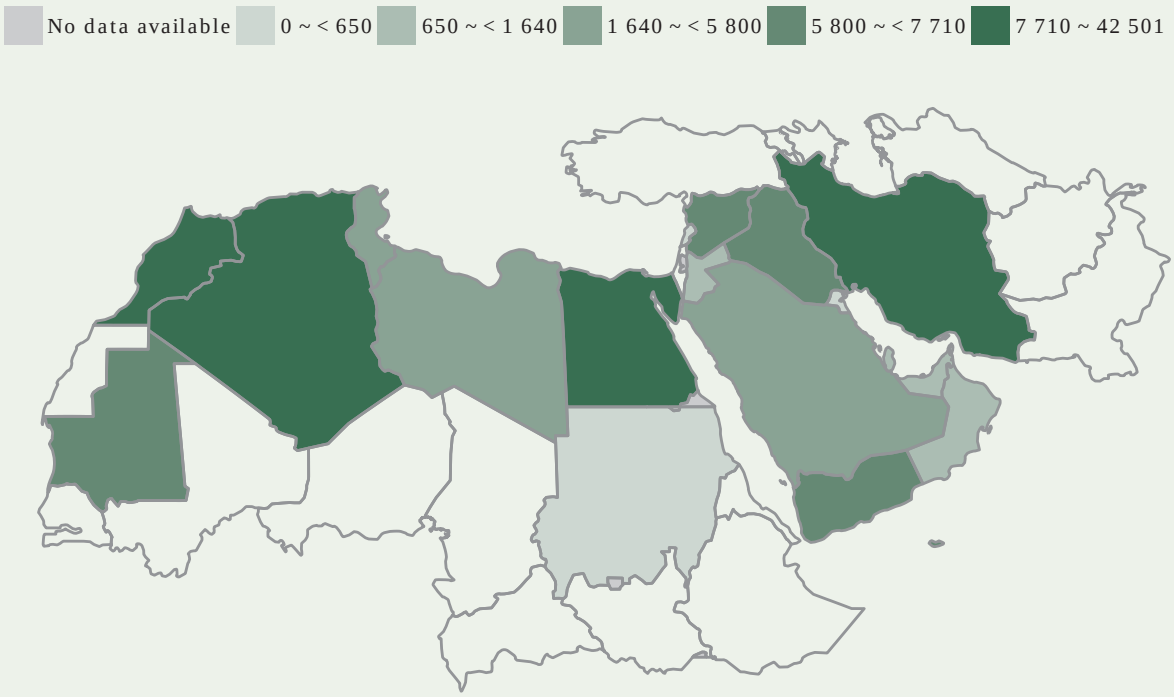
Source: FAO, Statistics Division (FAOSTAT).

CHART 114: **Agricultural greenhouse gas emissions (1990-2010)**



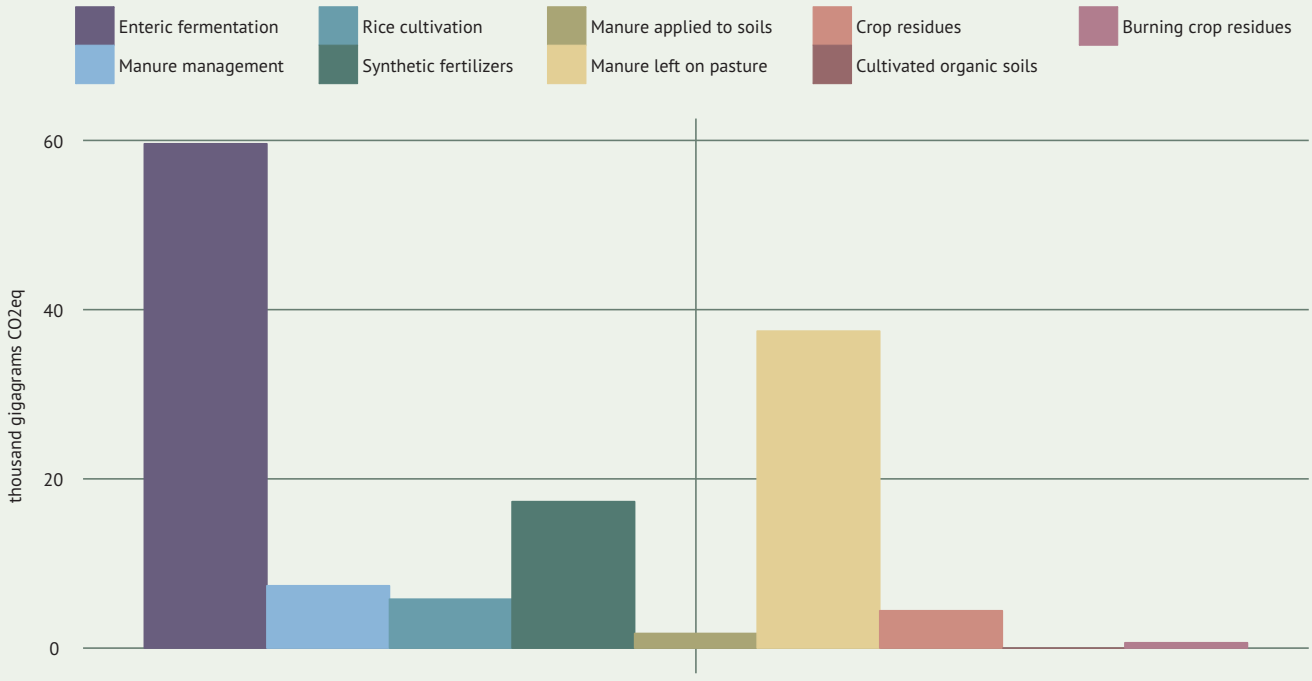
Source: FAO, Statistics Division (FAOSTAT).

MAP 66: **Total agricultural greenhouse gas emissions (gigagrams CO_2eq, 2010)**



Source: FAO, Statistics Division (FAOSTAT).

CHART 115: **Near East and North Africa agricultural greenhouse gas emissions by sector (2010)**



Source: FAO, Statistics Division (FAOSTAT).

TABLE 43: **Land and Forestry**

	Forest area				Forest characteristics					
	total		% total land		primary forest		other naturally regenerated forest		planted forest	
	thousand ha 1990	thousand ha 2011	percent 1990	percent 2011	percent 1990	percent 2010	percent 1990	percent 2010	percent 1990	percent 2010
Regional office for the Near East and North Africa	98 673	22 656	6.8	1.9	16.1	15.7	75.7	73.9	8.2	10.4
Gulf Cooperation Council States and Yemen	1 777	1 853	0.6	0.6	20.3	19.4	65.6	63.0	14.1	17.6
Bahrain	0	1	0.3	0.7	0.0	0.0	0.0	0.0	100.0	100.0
Kuwait	4	6	0.2	0.4	0.0	0.0	0.0	0.0	100.0	100.0
Oman	2	2	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0
Qatar	0	0	0.0	0.0						
Saudi Arabia	977	977	0.5	0.5	36.8	36.8	63.2	63.2	0.0	0.0
United Arab Emirates	245	318	2.9	3.8	0.0	0.0	0.0	0.0	100.0	100.0
Yemen	549	549	1.0	1.0	0.0	0.0	100.0	100.0	0.0	0.0
North Africa	7 991	8 101	1.4	1.4	0.0	0.0	83.4	75.9	16.6	24.1
Algeria	1 667	1 483	0.7	0.6	0.0	0.0	80.0	72.9	20.0	27.1
Libya	217	217	0.1	0.1	0.0	0.0	0.0	0.0	100.0	100.0
Mauritania	415	237	0.4	0.2	0.0	0.0	98.8	91.3	1.2	8.7
Morocco	5 049	5 141	11.3	11.5	0.0	0.0	90.5	87.9	9.5	12.1
Tunisia	643	1 022	4.1	6.6	0.0	0.0	54.4	31.4	45.6	68.6
Other Near East Countries	88 905	12 702	15.5	3.8	17.5	17.2	75.2	73.9	7.3	8.9
Egypt	44	71	0.0	0.1	0.0	0.0	0.0	0.0	100.0	100.0
Iran (Islamic Republic of)	11 075	11 075	6.8	6.8	1.8	1.8	90.6	90.6	7.6	7.6
Iraq	804	825	1.8	1.9	0.0	0.0	98.1	98.2	1.9	1.8
Jordan	98	98	1.1	1.1		0.0		51.9		48.1
Lebanon	131	137	12.8	13.4		0.0		92.3		7.7
Sudan										
Sudan (former)	76 381		32.1		20.0	20.0	72.9	71.3	7.1	8.7
Syrian Arab Republic	372	497	2.0	2.7	0.0	0.0	53.1	40.2	46.9	59.8
Regional Office for Africa	724 070	592 369	32.1	27.9	2.2	11.9	97.4	85.6	0.4	13.1
Regional Office for Asia and the Pacific	744 278	1 567 564	24.3	31.3	41.8	36.4	55.1	53.1	3.2	10.5
Regional Office for Europe and Central Asia		1 031 346		38.3	22.4	23.1	70.2	68.1	7.4	8.8
Regional Office for Latin America and the Caribbean	1 039 686	942 806	51.6	46.8	75.1	72.9	24.0	25.0	0.9	2.0
World	4 168 399	3 957 571	32.0	31.0	28.0	38.2	69.1	52.9	3.0	9.9

TABLE 44: **Forestry production and trade**

	Production of selected forest products							
	industrial roundwood		woodfuel		roundwood			
	total	p.a. growth	total	p.a. growth	total	p.a. growth	export	import
	thousand m^3 2011-12	percent 1962-2012	thousand m^3 2011-12	percent 1962-2012	thousand m^3 2011-12	percent 1962-2012	thousand m^3 2011-12	thousand m^3 2011-12
Regional office for the Near East and North Africa	4 059		53 680	1.3	57 738	1.2	40.9	964.5
Gulf Cooperation Council States and Yemen	0		823	4.2	823	4.2	18.7	229.4
Bahrain	0		7	2.0	7	2.0	0.5	4.6
Kuwait	0		19	5.0	19	5.0	0.9	1.1
Oman	0		41	4.9	41	4.9	0.1	19.0
Qatar	0		5	6.2	5	6.2	2.4	1.4
Saudi Arabia	0		261	5.7	261	5.7	2.3	34.5
United Arab Emirates	0		18	8.7	18	8.7	12.5	157.7
Yemen	0		472	3.1	472	3.1	0.0	11.2
North Africa	848		20 143	1.5	20 991	1.4	5.8	298.7
Algeria	139	0.2	8 317	2.1	8 455	2.1	0.3	6.4
Libya	116	3.4	975	2.4	1 091	2.5	0.0	5.1
Mauritania	3	0.0	1 919	2.1	1 922	2.1	0.3	31.5
Morocco	372	0.2	6 741	0.5	7 113	0.5	5.1	244.5
Tunisia	218	2.9	2 191	1.1	2 409	1.2	0.1	11.2
Other Near East Countries	3 211		32 713	1.1	35 924	1.0	16.4	436.4
Egypt	268	3.1	17 601	1.1	17 869	1.1	2.8	269.3
Iran (Islamic Republic of)	660	−4.1	45	−6.4	705	−4.3	0.1	85.9
Iraq	59	1.9	118	3.2	177	2.6	0.0	3.8
Jordan	4	1.4	318	3.2	322	3.2	0.2	1.8
Lebanon	7	−0.2	19	−1.4	26	−1.1	1.3	74.9
Sudan	2 173		14 583		16 756		9.8	0.6
Sudan (former)								
Syrian Arab Republic	40	0.6	30	−1.0	70	−0.3	2.2	0.1
Regional Office for Africa	69 067	2.5	586 388	2.2	655 455	2.1	3 898.2	166.3
Regional Office for Asia and the Pacific	492 829		791 993	0.4	1 284 822	0.6	45 379.5	60 337.6
Regional Office for Europe and Central Asia	548 725		158 139		706 864		61 838.4	55 978.3
Regional Office for Latin America and the Caribbean	221 276	4.2	289 182	1.2	510 458	2.1	1 430.0	242.5
World	1 652 146		1 882 369	1.1	3 534 516	1.1	116 680.1	124 720.0

TABLE 45: **Forestry production: finished products**

	Production of selected forest products							
	sawnwood		wood-based panels		wood pulp		paper and paperboard	
	total	p.a. growth	total	p.a. growth	total	p.a. growth	total	p.a. growth
	thousand m^3	percent	thousand m^3	percent	thousand tonnes	percent	thousand tonnes	percent
	2011-12	1962-2012	2011-12	1962-2012	2011-12	1962-2012	2011-12	1962-2012
Regional office for the Near East and North Africa	285		1 743		508		3 290	
Gulf Cooperation Council States and Yemen	0		0		0		1 530	
Bahrain	0		0		0		15	
Kuwait	0		0		0		57	
Oman	0		0		0		4	
Qatar	0		0		0		3	
Saudi Arabia	0		0		0		1 150	
United Arab Emirates	0		0		0		300	
Yemen	0		0		0		1	
North Africa	161		189		221		337	
Algeria	13	−3.0	48		0		46	1.2
Libya	31	4.2	0		0		6	1.8
Mauritania	14		2		0		1	
Morocco	83	2.7	35	3.4	221	4.7	127	2.2
Tunisia	20	4.3	104		0		157	7.8
Other Near East Countries	124		1 554		288		1 423	
Egypt	12		59	3.2	41		660	4.1
Iran (Islamic Republic of)	31	−2.7	1 415		246		515	9.7
Iraq	12	2.4	5		0		13	
Jordan	0		0		0		54	
Lebanon	9	1.3	46	0.7	0		103	8.0
Sudan	51		2		0		3	
Sudan (former)								
Syrian Arab Republic	9	1.1	27	1.8	0		75	
Regional Office for Africa	8 353		2 623		2 371		2 748	
Regional Office for Asia and the Pacific	140 473		165 941		39 878		184 549	
Regional Office for Europe and Central Asia	143 131		81 610		47 314		107 209	
Regional Office for Latin America and the Caribbean	42 296	2.6	17 538		22 174		20 078	
World	408 768		299 008		173 722		399 734	

TABLE 46: **Water withdrawal and pressure on renewable water resources**

	Water withdrawal by sector				Water withdrawal		% of renewable freshwater resources withdrawn	
	Years	% of total			total	per capita	total	by agriculture
	years	agricultural percent	industrial percent	municipal percent	million m^3/yr	m^3/yr/cap	percent	percent
	1975-2010	2010*	2010*	2010*	2010*	2010*	2010*	2010*
Regional office for the Near East and North Africa								
Gulf Cooperation Council States and Yemen								
Bahrain	2 003	44.5	5.7	49.8	357	386	205.8	137.2
Kuwait	2 002	53.9	2.3	43.9	913	441	2 075.0	2 460.0
Oman	2 003	88.4	1.4	10.1	1 321	516	83.9	83.4
Qatar	2 005	59.0	1.8	39.2	444	377	381.0	451.7
Saudi Arabia	2 006	88.0	3.0	9.0	23 670	928	936.2	867.9
United Arab Emirates	2 005	82.8	1.7	15.4	3 998	740	1 867.0	2 208.0
Yemen	2 005	90.7	1.8	7.4	3 565	162	168.6	154.0
North Africa								
Algeria	2 000	63.9	13.5	22.5	6 161	196	52.7	33.8
Libya	2 000	82.8	3.1	14.1	4 326	796	609.7	512.0
Mauritania	2 000	93.7	1.6	4.7	1 601	572	14.0	13.2
Morocco	2 000	87.3	2.9	9.8	12 607	428	43.5	38.0
Tunisia	2 000	82.0	4.2	13.8	2 640	296	61.3	47.1
Other Near East Countries								
Egypt	2 000	86.4	5.9	7.8	68 300	973	94.7	103.0
Iran (Islamic Republic of)	2 004	92.2	1.2	6.6	93 300	1 306	67.7	62.6
Iraq	2 000	78.8	14.7	6.5	66 000	2 616	87.3	68.8
Jordan	2 005	65.0	4.1	31.0	941	166	90.5	65.2
Lebanon	2 005	59.5	11.5	29.0	1 310	317	18.6	17.3
Sudan								
Sudan (former)	2 000	97.1	0.6	2.3	37 140	1 037	57.6	55.9
Syrian Arab Republic	2 003	87.5	3.7	8.8	16 760	867	86.4	87.3
Regional Office for Africa								
Regional Office for Asia and the Pacific								
Regional Office for Europe and Central Asia								
Regional Office for Latin America and the Caribbean								
World								

TABLE 47: **Species threatened and nationally protected areas**

	Threatened species				Nationally protected areas			
	mammals	birds	fish	higher plants	terrestrial		territorial waters	
	species 2012	species 2012	species 2012	species 2012	% of total land area percent 1990	% of total land area percent 2010	% of territorial waters percent 1990	% of territorial waters percent 2010
Regional office for the Near East and North Africa	219	209	460	245	3.9	7.9		
Gulf Cooperation Council States and Yemen	46	64	118	168	6.4	23.0		
Bahrain	3	3	8	0	1.3	1.3	0	0.7
Kuwait	6	8	11	0	1.6	1.6	0	0.0
Oman	9	10	27	6	0.0	10.7	0	1.3
Qatar	3	4	11	0	1.7	2.5	0	0.3
Saudi Arabia	9	15	24	3	7.6	31.3	1	3.4
United Arab Emirates	7	9	13	0	0.3	5.6	0	2.6
Yemen	9	15	24	159		0.5	0	1.8
North Africa	72	46	172	51	2.9	2.9		
Algeria	14	11	36	13	6.3	6.3	0	0.3
Libya	12	4	24	3	0.1	0.1	0	0.1
Mauritania	16	13	32	0	0.5	0.5	32	32.1
Morocco	17	11	45	29	1.2	1.5	1	1.3
Tunisia	13	7	35	6	1.3	1.3	1	1.2
Other Near East Countries	101	99	170	26	3.6	4.9		
Egypt	18	10	40	2	1.9	5.9	4	9.3
Iran (Islamic Republic of)	16	22	30	2	5.2	7.1	1	1.7
Iraq	13	16	11	1	0.1	0.1	0	0.0
Jordan	13	10	13	1	0.7	1.9	0	30.0
Lebanon	10	9	22	1	0.5	0.5	0	0.1
Sudan	15	17						
Sudan (former)			20	17	4.2	4.2	0	0.0
Syrian Arab Republic	16	15	34	2	0.3	0.6	0	0.6
Regional Office for Africa	728	751	1 765	2 555	10.8	11.7		
Regional Office for Asia and the Pacific	1 147	1 204	1 549	2 978	9.0	10.5		
Regional Office for Europe and Central Asia	328	478	1 047	648		9.0		
Regional Office for Latin America and the Caribbean	599	960	1 051	4 090	9.7	20.2		
World	3 075	3 753	6 229	11 212	9.1	12.3		

TABLE 48: **Agri-environmental indicators**

	Stock of						Organic water pollutant (BOD) emissions	
	cattle and buffaloes		sheep and goats		poultry birds			
	per ha of agricultural area head/ha	per ha of agricultural area head/ha	per ha of agricultural area head/ha	per ha of agricultural area head/ha	per ha of agricultural area head/ha	per ha of agricultural area head/ha	kg/day	kg/day/worker
	2000	2011	2000	2011	2000	2011	2005-06*	2005-06*
Regional office for the Near East and North Africa	0.1	0.1	0.5	0.8	1.9	6.9		
Gulf Cooperation Council States and Yemen	0.0	0.0	0.1	0.2	1.0	1.4		
Bahrain	1.2	1.2	4.6	7.1	53.3	64.6		
Kuwait	0.1	0.2	5.2	4.3	177.8	210.5		
Oman	0.3	0.2	1.2	1.2	3.2	2.5	6 631	0.2
Qatar	0.2	0.2	6.0	6.5	63.8	121.2	6 388	0.1
Saudi Arabia	0.0	0.0	0.1	0.1	0.7	0.9	106 621	0.2
United Arab Emirates	0.2	0.3	3.2	8.3	22.1	52.9		
Yemen	0.1	0.1	0.6	0.8	1.3	2.6	46 526	0.2
North Africa	0.0	0.1	0.5	0.6	2.5	3.2		
Algeria	0.0	0.0	0.5	0.7	2.8	3.1		
Libya	0.0	0.0	0.3	0.6	1.6	2.2		
Mauritania	0.0	0.0	0.3	0.4	0.1	0.1		
Morocco	0.1	0.1	0.7	0.8	4.5	6.1	79 829	0.2
Tunisia	0.1	0.1	0.9	0.8	6.7	8.3		
Other Near East Countries	0.3	0.3	0.9	1.5	2.3	15.5		
Egypt	2.1	2.3	2.4	2.6	36.1	39.7		
Iran (Islamic Republic of)	0.1	0.2	1.3	1.5	4.0	18.5	160 776	0.2
Iraq	0.2	0.2	1.0	1.2	2.8	4.6		
Jordan	0.1	0.1	2.2	3.0	22.0	26.1	27 208	0.2
Lebanon	0.1	0.1	1.3	1.0	52.1	59.6		
Sudan								
Sudan (former)	0.3		0.6		0.3			
Syrian Arab Republic	0.1	0.1	1.1	1.5	1.7	2.0	77 854	0.2
Regional Office for Africa	0.2	0.3	0.4	0.5	0.8	1.3		
Regional Office for Asia and the Pacific	0.3	0.4	0.5	0.5	3.9	6.5		
Regional Office for Europe and Central Asia	0.2	0.2	0.3	0.3	2.8	3.3		
Regional Office for Latin America and the Caribbean	0.5	0.6	0.2	0.2	3.1	4.2		
World	0.3	0.3	0.4	0.4	3.3	4.8		

TABLE 49: **Water pollution**

	Water pollution							
	% of total BOD emissions							
	chemical industry percent 2005-06*	clay and glass industry percent 2005-06*	food industry percent 2005-06*	metal industry percent 2005-06*	other industry percent 2005-06*	paper and pulp industry percent 2005-06*	textile industry percent 2005-06*	wood industry percent 2005-06*
Regional office for the Near East and North Africa								
Gulf Cooperation Council States and Yemen								
Bahrain								
Kuwait								
Oman	16.3	23.7	21.6	4.3	21.6	5.1	5.2	2.1
Qatar	10.5	18.1	6.5	3.7	21.3	6.7	20.7	12.5
Saudi Arabia	11.6	10.7	20.0	3.2	30.0	6.9	14.4	3.3
United Arab Emirates								
Yemen	7.4	14.6	35.9		19.4	2.1	15.5	5.1
North Africa								
Algeria								
Libya								
Mauritania								
Morocco	8.7	9.5	17.4	1.0	16.7	2.8	42.1	1.9
Tunisia								
Other Near East Countries								
Egypt								
Iran (Islamic Republic of)	12.8	13.8	16.1	7.1	35.5	2.8	11.2	0.7
Iraq								
Jordan	14.7	11.6	21.6	2.5	24.2	6.1	16.8	2.6
Lebanon								
Sudan								
Sudan (former)								
Syrian Arab Republic	7.1	11.4	20.2	1.5	20.9	1.9	32.0	5.1
Regional Office for Africa								
Regional Office for Asia and the Pacific								
Regional Office for Europe and Central Asia								
Regional Office for Latin America and the Caribbean								
World								

TABLE 50: **Renewable feedstocks**

	Production		Organic agriculture	Production			
	biofuel		% of total area	natural fibre		recovered paper	
				total			
	thousand kilotonne of oil equivalent 2000	thousand kilotonne of oil equivalent 2009	percent 2011	thousand tonnes 1992	thousand tonnes 2011	thousand tonnes 2000	thousand tonnes 2012
Regional office for the Near East and North Africa	3.5	4.2				753	2 247
Gulf Cooperation Council States and Yemen	0.1	0.1				190	1 665
Bahrain	0.0	0.0				0	40
Kuwait	0.0	0.0				15	170
Oman	0.0	0.0	0.0			0	80
Qatar	0.0	0.0				0	0
Saudi Arabia	0.0	0.0	0.0			75	1 000
United Arab Emirates	0.0	0.0	0.2			100	375
Yemen	0.1	0.1		4.3	8.5	0	0
North Africa	1.6	2.0				110	107
Algeria	0.1	0.1	0.0	0.0	0.0	37	32
Libya	0.1	0.2				0	0
Mauritania	0.0	0.0				0	0
Morocco	0.4	0.5	0.1	4.8	1.5	35	35
Tunisia	0.9	1.3	1.8	0.5	0.6	38	40
Other Near East Countries	1.8	2.1				453	475
Egypt	1.3	1.6	2.2	383.1	147.4	350	380
Iran (Islamic Republic of)	0.4	0.4	0.1	101.0	73.4	80	80
Iraq	0.0	0.0		2.7	12.0	11	6
Jordan	0.0	0.0	0.3			12	3
Lebanon	0.1	0.1	0.5			0	0
Sudan	0.0	0.0				0	6
Sudan (former)				59.6	27.3		
Syrian Arab Republic	0.0	0.0	0.1	255.0	151.3	0	0
Regional Office for Africa	188.2	244.2		1 035.1	1 264.1	839	1 205
Regional Office for Asia and the Pacific	521.2	560.7	0.8			42 391	90 639
Regional Office for Europe and Central Asia	69.9	104.7	1.4		3 162.5	44 837	56 745
Regional Office for Latin America and the Caribbean	90.7	123.6	0.9	1 830.2	2 911.1	5 533	10 311
World	942.0	1 120.4				142 814	212 516

TABLE 51: **Agricultural emissions**

	Enteric fermentation	Manure management	Rice cultivation	Synthetic fertilizers	Manure applied to soils	Manure left on pasture	Crop residues	Cultivated organic soils	Burning crop residues
	gigagrams CO_2eq 2010	gigagrams CO_2eq 2010	gigagrams CO_2eq 2010	gigagrams CO_2eq 2010	gigagrams CO_2eq 2010	gigagrams CO_2eq 2010	gigagrams CO_2eq 2010	gigagrams CO_2eq 2010	gigagrams CO_2eq 2010
Regional office for the Near East and North Africa	57 726	6 346	5 781	17 311	4 986	37 525	4 417	0	635
Gulf Cooperation Council States and Yemen	6 679	475	0	2 001	334	5 793	191	0	15
Bahrain	15	1	0	16	1	14	0	0	0
Kuwait	104	27	0	42	34	216	0	0	0
Oman	609	35	0	0	10	430	2	0	0
Qatar	102	11	0	529	8	76	0	0	0
Saudi Arabia	1 466	161	0	1 071	167	1 693	107	0	7
United Arab Emirates	774	53	0	189	23	454	0	0	0
Yemen	3 609	187	0	154	91	2 910	80	0	8
North Africa	17 054	960	195	1 927	536	13 465	1 071	0	168
Algeria	4 621	246	1	294	146	3 900	366	0	54
Libya	1 265	66	0	305	37	1 134	24	0	4
Mauritania	4 067	194	151	0	34	2 136	24	0	2
Morocco	5 257	324	44	881	220	4 650	576	0	96
Tunisia	1 844	129	0	447	100	1 645	81	0	12
Other Near East Countries	33 992	4 911	5 585	13 383	4 116	18 268	3 155	0	452
Egypt	9 828	721	2 702	9 198	170	3 962	997	0	118
Iran (Islamic Republic of)	18 287	3 854	2 601	2 520	3 734	9 445	1 511	0	236
Iraq	2 615	157	282	697	96	1 915	308	0	48
Jordan	378	31	0	102	29	414	6	0	1
Lebanon	134	25	0	98	43	275	16	0	1
Sudan	0	0	0	0	0	0	0	0	0
Sudan (former)									
Syrian Arab Republic	2 750	122	0	769	45	2 256	316	0	48
Regional Office for Africa	228 466	14 842	23 645	8 309	6 520	157 705	7 777	5 177	2 288
Regional Office for Asia and the Pacific	809 434	169 122	457 990	435 707	127 041	264 047	74 036	56 496	9 150
Regional Office for Europe and Central Asia	274 240	99 643	7 909	100 457	48 548	49 963	27 897	29 124	3 218
Regional Office for Latin America and the Caribbean	526 629	22 670	17 027	47 721	23 512	208 745	19 177	1 605	2 757
World	1 960 484	348 079	519 531	682 636	220 255	741 025	152 903	99 048	19 702

PART

5

Metadata

Regional office for the Near East and North Africa[1]		
Gulf Cooperation Council States and Yemen	North Africa	Other Near East countries
Bahrain	Algeria	Egypt
Kuwait	Libya	Iran (Islamic Republic of)
Oman	Mauritania	Iraq
Qatar	Morocco	Jordan
Saudi Arabia	Tunisia	Lebanon
United Arab Emirates		Sudan
Yemen		Sudan (former)
		Syrian Arab Republic

[1]Near East and North Africa Region in visualization is abbreviated as Regional Office for the Near East

Metadata

Aggregation

Two types of aggregation are used in the book, namely sum and weighted mean. Two restrictions are imposed when computing the aggregation. Sufficiency condition: the aggregation is computed only when sufficient countries has reported data. The current threshold is set at 50% of the variable and the weighting variable if present. Comparability condition: Since aggregation are usually computed over years, this condition is designed to ensure that the number of reporting entites are comparable over the years. The current restriction is that the number of reporting entities does not vary above 15 countries in order to account for transition in countries.

Agricultural area (ha)

Agricultural area, this category is the sum of areas under a) arable land - land under temporary agricultural crops (multiple-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (less than five years). The abandoned land resulting from shifting cultivation is not included in this category. Data for "Arable land" are not meant to indicate the amount of land that is potentially cultivable; (b) permanent crops - land cultivated with long-term crops which do not have to be replanted for several years (such as cocoa and coffee); land under trees and shrubs producing flowers, such as roses and jasmine; and nurseries (except those for forest trees, which should be classified under "forest"); and (c) permanent meadows and pastures - land used permanently (five years or more) to grow herbaceous forage crops, either cultivated or growing wild (wild prairie or grazing land). Data are expressed in 1000 hectares.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Agricultural area organic (ha)

Sum of areas under "Agricultural area certified organic" and "Agricultural area in conversion to organic". Agricultural area certified organic is the land area exclusively dedicated to organic agriculture and managed by applying organic agriculture methods. It refers to the land area fully converted to organic agriculture. It is the portion of land area (including arable lands, pastures or wild areas) managed (cultivated) or wild harvested in accordance with specific organic standards or technical regulations and that has been inspected and approved by a certification body. Agricultural area in conversion to organic is the land area which is going through the organic conversion process, usually two years period of conversion to organic land.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Agricultural population, total

Agricultural population is defined as all persons depending for their livelihood on agriculture, hunting, fishing and forestry. It comprises all persons economically active in agriculture as well as their non-working dependents. It is not necessary that this referred population exclusively come from rural population.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Agricultural production indices

The FAO indices of agricultural production show the relative level of the aggregate volume of agricultural production for each year in comparison with the base period 1999-2001. They are based on the sum of price-weighted quantities of different agricultural commodities produced after deductions of quantities used as seed and feed weighted in a similar manner. The resulting aggregate represents, therefore, disposable production for any use except as seed and feed. All the indices at the country, regional and world levels are calculated by the Laspeyres formula. Production quantities of each commodity are weighted by 1999-2001 average international commodity prices and summed for each year. To obtain the index, the aggregate for a given year is divided by the average aggregate for the base period 1999-2001. Since the FAO indices are based on the concept of agriculture as a single enterprise, amounts of seed and feed are subtracted from the production data to avoid double counting , once in the production data and once with the crops or livestock produced from them. Deductions for seed (in the case of eggs, for hatching) and for livestock and poultry feed apply to both domestically produced and imported commodities. They cover only primary agricultural products destined to animal feed (e.g. maize, potatoes, milk, etc.). Processed and semi-processed feed items such as bran, oilcakes, meals and molasses have been completely excluded from the calculations at all stages. It should be noted that when calculating indices of agricultural, food and nonfood production, all intermediate primary inputs of agricultural origin are deducted. However, for indices of any other commodity group, only inputs originating from within the same group are deducted; thus, only seed is removed from the group "crops" and from all crop subgroups, such as cereals, oil crops, etc.; and both feed and seed originating from within the livestock sector (e.g. milk feed, hatching eggs) are removed from the group "livestock products". For the main two livestock subgroups, namely, meat and milk, only feed originating from the respective subgroup is removed. Indices which take into account deductions for feed and seed are referred to as "net". Indices calculated without any deductions for feed and seed are referred to as "gross".The "international commodity prices" are used in order to avoid the use of exchange rates for obtaining continental and world aggregates, and also to improve and facilitate international comparative analysis of productivity at the national level. These" international prices", expressed in so-called"international dollars", are derived using a Geary-Khamis formula for the agricultural sector. This method assigns a single "price" to each commodity. For example, one metric ton of wheat has the same price regardless of the country where it was produced. The currency unit in which the prices are expressed has no influence on the indices published. The commodities covered in the computation of indices of agricultural production are all crops and livestock products originating in each country. Practically all products are covered, with the main exception of fodder crops. The category of food production includes commodities that are considered edible and that contain nutrients. Accordingly, coffee and tea are excluded along with inedible commodities because, although edible, they have practically no nutritive value. Prices applied to meat in reality represent the prices of animals for slaughtering in terms of live weight. For example, if the price of one metric ton (1000 kg) of pigs alive is 825 dollars and the ratio meat to live weight is 75 to 100, the price applicable to 750 kg of pig meat will be 825 dollars, corresponding to 1100 dollars per metric tons. The indices are calculated from production data presented on a calendar year basis. The FAO indices may differ from those produced by the countries themselves because of differences in concepts of production, coverage, weights, time reference of data and methods of calculation.

Agricultural tractors, total (tractors)

Agricultural tractors generally refer to wheel and crawler or tracklaying type tractors (excluding garden tractors) used in agriculture. Data are expressed in numbers in use in the agricultural sector.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Agricultural water withdrawal, share of total water withdrawal (percent)

Agricultural water withdrawal as percentage of total water withdrawal.

Source: Land and Water Division (AQUASTAT)

Owner: FAO

Agriculture value added per worker (constant 2000 US$)

Agriculture value added per worker is a measure of agricultural productivity. Value added in agriculture measures the output of the agricultural sector (ISIC divisions 1-5) less the value of intermediate inputs. Agriculture comprises value added from forestry, hunting, and fishing as well as cultivation of crops and livestock production. Data are in constant 2000 U.S. dollars.

Source: World Bank (WDI)

Owner: Derived from World Bank national accounts files and Food and Agriculture Organization, Production Yearbook and data files.

Agriculture, Forestry, Fishing, and Hunting, Cash (Budg. Cen. Govt.) (share of agricultural GDP)

See 'Government expenditure'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Agriculture, Forestry, Fishing, and Hunting, Cash (Budg. Cen. Govt.) (share of total outlays)

See 'Government expenditure'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Agriculture, Forestry, Fishing, and Hunting, Noncash (Budg. Cen. Govt.) (share of agricultural GDP)

See 'Government expenditure'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Agriculture, Forestry, Fishing, and Hunting, Noncash (Budg. Cen. Govt.) (share of total outlays)

See 'Government expenditure'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Agriculture, value added (percent of GDP)

Agriculture corresponds to ISIC divisions 1-5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3. Note: For VAB countries, gross value added at factor cost is used as the denominator.

Source: World Bank (WDI)

Owner: World Bank national accounts data, and OECD National Accounts data files.

All GHG agricultural sectors, total emissions in CO_2eq (gigagrams)

Agriculture Total contains all the emissions produced in the different agricultural emissions sub-domains, providing a picture of the contribution to the total amount of GHG emissions from agriculture. GHG Emissions from agriculture consist of non-CO_2 gases, namely methane (CH4) and nitrous oxide (N2O), produced by crop and livestock production and management activities.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Aquaculture fish production (tonnes)

Aquaculture is defined as the farming of aquatic organisms. Farming implies some form of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated. For statistical purposes, aquatic organisms which are harvested by an individual or corporate body which has owned them throughout their rearing period contribute to aquaculture, while aquatic organisms which are exploitable by the public as a common property resource, with or without appropriate licenses, are the harvest of fisheries. In the case of capture-based aquaculture, only the incremental growth (or weight gain) in captivity, could and should be reported as the production from aquaculture. Data included here covers an aquaculture production of fish, molluscs, crustaceans and miscellaneous aquatic animals but excluding production for marine mammals, crocodiles, corals, pearls, sponges and aquatic plants.

Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics)

Owner: FAO

Aquaculture fish production inland (tonnes)

Aquaculture production from inland areas.

Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics)

Owner: FAO

Aquaculture fish production marine (tonnes)

Aquaculture production from marine areas.

Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics)

Owner: FAO

Arable land (ha)

Arable land is the land under temporary agricultural crops (multiple-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (less than five years). The abandoned land resulting from shifting cultivation is not included in this category. Data for 'Arable land' are not meant to indicate the amount of land that is potentially cultivable.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Arable land and permanent crops (ha)

Arable land and Permanent crops, this category is the sum of areas under 'Arable land' and 'Permanent crops'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Area under bioenergy crops (ha)

The assumed land area required to produce a given annual quantity of biofuel production.

Source: FAO

Owner: Based on IEA biofuel production data

Artificial sweeteners

High-intensity or low-caloric sweetening agents that are produced chemically.

Average dietary supply adequacy (index)

The indicator expresses the Dietary Energy Supply (DES) as a percentage of the Average Dietary Energy Requirement (ADER) in the country. Each country's or region's average supply of calories for food consumption is normalized by the average dietary energy requirement estimated for its population, to provide an index of adequacy of the food supply in terms of calories. Analyzed together with the prevalence of undernourishment, it allows discerning whether undernourishment is mainly due to insufficiency of the food supply or to particularly bad distribution. The indicator is calculated as an average over 3 years to reduce the impact of possible errors in estimated DES, due to the difficulties in properly accounting of stock variations in major food. It thus provides an indicator of structural food supply adequacy.

Source: FAO, Statistics Division

Owner: FAO

Average fat supply (g/cap/day)

National average fat supply (expressed in grams per caput per day).

Source: FAO, Statistics Division

Owner: FAO

Average protein supply (g/cap/day)

National average protein supply (expressed in grams per caput per day). As other indicators based on Food balance Sheets data, it is calculated on 3 year averages, to reduce the impact of errors in recording of annual stock variations.

Source: FAO, Statistics Division

Owner: FAO

Average supply of protein of animal origin (g/cap/day)

National average protein supply (expressed in grams per caput per day). It includes the following groups: Meat; Offals; Animal Fats and Products; Milk and Products; Eggs, Fish, Seafood and Products; and Acquatic Products, other. The indicator is calculated on 3 year averages.

Source: FAO, Statistics Division

Owner: FAO

Beef and buffalo meat (tonnes)

See 'Buffalos', 'Meat, total', and 'Production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Biofuel production (energy, kilotonne of oil equivalent)

Sum of ethanol and biodiesel production, reported in kilotonne of oil equivalent.

Source: IEA

Owner: Energy Balances of OECD Countries and Energy Balances of Non-OECD Countries, 2011 editions

Bird species, threatened

Birds are listed for countries included within their breeding or wintering ranges. Threatened species are the number of species classified by the IUCN as endangered, vulnerable, rare, indeterminate, out of danger, or insufficiently known.

Source: World Bank (WDI)

Owner: United Nations Environmental Program and the World Conservation Monitoring Centre, and International Union for Conservation of Nature, Red List of Threatened Species.

Buffaloes

Indian, Asiatic, pigmy, water buffalo (Bubalus bubalus; B. arnee; B. depressicornis); African buffalo (genus Syncerus); American bison (Bison bison); European bison (Bison bonasus); beeffalo (cross between a bison and a domesticated beef animal). See 866. Excludes wild bisons and buffaloes.

Burning crop residues, total emissions in CO_2eq (gigagrams)

Greenhouse Gas (GHG) emissions from burning crop residues consist of methane and nitrous oxide gases produced by the combustion of a percentage of the crop residues burnt on-site.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Butter and ghee production (tonnes)

See 'Butter, ghee' and 'Production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Butter, Ghee

Default composition: 886 Butter, cow milk, 887 Ghee, butteroil of cow milk, 952 Butter, buffalo milk, 953 Ghee, of buffalo milk, 983 Butter and ghee, sheep milk, 1022 Butter of goat mlk

Capture fish production (tonnes)

Capture fishery is defined as the hunting, collecting and gathering activities directed at removing or collecting live wild aquatic organisms. The capture production statistics here indicates the nominal catches of aquatic organisms, killed, caught, trapped or collected for all commercial, industrial, recreational and subsistence purposes in live weight equivalent. Data included here covers capture production of fish, molluscs, crustaceans and miscellaneous aquatic animals but excluding production for marine mammals, crocodiles, corals, pearls, sponges and aquatic plants.

Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics)

Owner: FAO

Capture fish production inland (tonnes)

Capture fishery production from inland areas.

Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics)

Owner: FAO

Capture fish production marine (tonnes)

Capture fishery production from marine areas.

Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics)

Owner: FAO

Cassava

Manioc, mandioca, yuca (Manihot esculenta, syn. M. utilissima); yuca dulce (M. palmata, syn. M. dulcis). A semi-permanent crop grown in tropical and subtropical regions. Sometimes bitter and sweet cassavas are referred to as separate species, the former being M. esculenta and the latter M. palmata, but this is incorrect since the toxicity varies according to location. Cassava is the staple food in many tropical countries. It is not traded internationally in its fresh state because tubers deteriorate very rapidly.

Cattle

Common ox (Bos taurus); zebu, humped ox (Bos indicus); Asiatic ox (subgenus Bibos); Tibetan yak (Poephagus grunniens). Animals of the genus listed, regardless of age, sex, or purpose raised. Data are expressed in number of heads.

Cattle and buffaloes (heads)

See 'Cattle' and 'Buffaloes'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Cereal exports (tonnes)

Exports (volume) of cereals.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Cereal import dependency ratio (percent)

Cereal imports/(cereal production+cereal import-cereal export). The indicator is calculated on 3 year averages.

Source: FAO, Statistics Division

Owner: FAO

Cereal imports (tonnes)

Imports (volume) of cereals.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Cereals

Cereals include Wheat, Rice Paddy, Barley, Maize, Popcorn, Rye, Oats, Millets, Sorghum, Buckwheat, Quinoa, Fonio, Triticale, Canary Seed, Mixed Grain and Cereals Nes.

Cereals harvested area (ha)

See 'Cereals' and 'Crop area'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Cereals production (tonnes)

See 'Cereals' and 'Crop production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Cereals yield (hg/ha)

See 'Cereals' and 'Crop yield'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Cheese (all kinds) production (tonnes)
All kinds of cheese. See also 'Production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Chickens
Fowl (Gallus domesticus); Guinea fowl (Numida meleagris. Domesticated birds only. Data are expressed in thousands.

Chickens (heads)
See 'Chickens' and 'Production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Children in employment, total (share of children ages 7-14)
Children in employment refer to children involved in economic activity for at least one hour in the reference week of the survey.
Source: World Bank (WDI)
Owner: Understanding Children's Work project based on data from ILO, UNICEF and the World Bank.

Citrus
Including inter alia: bergamot (Citrus bergamia); citron (C. medica var. cedrata); chinotto (C. myrtifolia); kumquat (Fortunella japonica). Some minor varieties of citrus are used primarily in the preparation of perfumes and soft drinks.

Citrus fruit harvested area (ha)
See 'Fruit, citrus nes' and 'Crop area'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Citrus fruit production (tonnes)
See 'Fruit, citrus nes' and 'Crop production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Citrus fruit yield (hg/ha)
See 'Fruit, citrus nes' and 'Crop yield'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Coarse grain
Coarse grains include Barley, Maize, Popcorn, Rye, Oats, Millet, Sorghum, Buckwheat, Quinoa, Fonio, Triticale, Canary seed, Mixed grain and Cereals, nes.

Coarse grain harvested area (ha)
See 'Coarse grain' and 'Crop area'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Coarse grain production (tonnes)
See 'Coarse grain' and 'Crop production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Coarse grain yield (hg/ha)
See 'Coarse grain' and 'Crop yield'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Cocoa, beans
Theobroma cacao. The seeds contained in the fruit of the cacao-tree, including whole or broken, raw or roasted.

Cocoa, paste
Obtained by grinding roasted cocoa beans. Also called liquor. Not defatted.

Coconut Oil
Default composition: Oil, coconut (copra)

Coconuts
Cocos nucifera Husked coconut. In shell, covered by the endocarp, while exocarp (the smooth outer skin) and mesocarp (the fibrous covering) are removed. Immature nuts contain a milky juice that is consumed as a refreshing drink. Mature nuts are consumed as such, or processed for copra or desiccated coconut. The flesh, from which copra/oil is extracted, constitutes 40-70% of the weight of the husked coconut. The oil content is about 36% of the flesh.

Cotton lint
Gossypium spp. Fibres from ginning seed cotton that have not been carded or combed. Trade data also include fibres that have been cleaned, bleached, dyed or rendered absorbent.

Cottonseed Oil
Default composition: Oil, cottonseed

CPIA business regulatory environment rating (1=low to 6=high)
Business regulatory environment assesses the extent to which the legal, regulatory, and policy environments help or hinder private businesses in investing, creating jobs, and becoming more productive.
Source: World Bank (WDI)
Owner: World Bank Group, CPIA database (http://www.worldbank.org/ida).

Crop area
Crop area is a surface of land on which a crop is grown. In general, the area measured for cadastral purposes includes, in addition to the area cultivated, headlands, ditches and other non-cultivated areas. Such an area can be called gross area as against the net area which includes only the portion of the gross area actually cultivated. For various reasons, e.g. natural calamities or economic considerations, certain areas planted or sown with a given crop are not harvested or are harvested before the crop reaches maturity. Hence the need for the concept of area to be sub-divided into sown or planted area and harvested area. Sown area data are necessary to estimate quantities used for seeding purposes; harvested area, to provide reliable and accurate yield and production data. A peculiarity of permanent crops is that number of trees or plants is reported in addition to or, instead of, the area planted. This is particularly so as regards plants growing outside of compact plantations, which are either interplanted with other crops or are scattered. Both area and number of trees are also divided into productive or bearing and non-productive or non-bearing areas or trees. In most cases, non-bearing refers to young plants that are not yet bearing.

Crop production
Crop production data refer to the actual harvested production from the field or orchard and gardens, excluding harvesting and threshing losses and that part of crop not harvested for any reason. Production therefore includes the quantities of the commodity sold in the market (marketed production) and the quantities consumed or used by the producers (auto-consumption). When the production data available refers to a production period falling into two successive calendar years and it is not possible to allocate the relative production to each of them, it is usual to refer production data to that year into which the bulk of the production falls. Crop production data are recorded in tonnes (t). In many countries, crop production data are obtained as a function of the estimated yield and the total area. If such a compilation method of production statistics is enforced by the country, it must be ensured that the total area does not refer to sown or planted area, which would give then the <U+393C><U+3E31>biological production', but to the actually harvested area during the year.\

Crop residues, total emissions in CO_2eq (gigagrams)

Greenhouse Gas (GHG) emissions from crop residues consist of nitrous oxide gas from decomposition of nitrogen in crop residues left on managed soils.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Crop yield

Harvested production per unit of harvested area for crop products. In most of the cases yield data are not recorded but obtained by dividing the production data by the data on area harvested. Data on yields of permanent crops are not as reliable as those for temporary crops either because most of the area information may correspond to planted area, as for grapes, or because of the scarcity and unreliability of the area figures reported by the countries, as for example for cocoa and coffee.

Crops net per capita production index number (2004-2006 = 100)

See 'Agricultural production indices'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Cultivated organic soils, total emissions in CO_2eq (gigagrams)

Greenhouse gas (GHG) emissions data from cultivated organic soils are those associated with nitrous oxide gas from drained organic soils. Computed at Tier 1 and complemented by geo-spatial data, following the 2006 IPCC Guidelines for National GHG Inventories (IPCC, 2006). Available by country, with global coverage and relative to the period 1990-2010 with annual updates.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Dairy products (milk equivalent) exports (tonnes)

Exports (volume) of dairy products (milk equivalent).

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Dairy products (milk equivalent) imports (tonnes)

Imports (volume) of dairy products (milk equivalent).

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Depth of the food deficit (kcal/cap/day)

The depth of the food deficit indicates how many calories would be needed to lift the undernourished from their status, everything else being constant. The average intensity of food deprivation of the undernourished, estimated as the difference between the average dietary energy requirement and the average dietary energy consumption of the undernourished population (food-deprived), is multiplied by the number of undernourished to provide an estimate of the total food deficit in the country, which is then normalized by the total population. The indicator is calculated as an average over 3 years.

Source: FAO, Statistics Division

Owner: FAO

Domestic food price volatility (index)

The Domestic Food Price Volatility is a measure of variation of the Domestic Food Price Level Index. It has been computed as the Standard Deviation (SD) of the deviations from the trend over the previous five years.

Source: FAO, Statistics Division

Owner: ILO and World Bank ICP (International Comparison Project)

Droughts, floods, extreme temperatures (percent of population affected, average 1990-2009)

Droughts, floods and extreme temperatures is the annual average percentage of the population that is affected by natural disasters classified as either droughts, floods, or extreme temperature events. A drought is an extended period of time characterized by a deficiency in a region's water supply that is the result of constantly below average precipitation. A drought can lead to losses to agriculture, affect inland navigation and hydropower plants, and cause a lack of drinking water and famine. A flood is a significant rise of water level in a stream, lake, reservoir or coastal region. Extreme temperature events are either cold waves or heat waves. A cold wave can be both a prolonged period of excessively cold weather and the sudden invasion of very cold air over a large area. Along with frost it can cause damage to agriculture, infrastructure, and property. A heat wave is a prolonged period of excessively hot and sometimes also humid weather relative to normal climate patterns of a certain region. Population affected is the number of people injured, left homeless or requiring immediate assistance during a period of emergency resulting from a natural disaster; it can also include displaced or evacuated people. Average percentage of population affected is calculated by dividing the sum of total affected for the period stated by the sum of the annual population figures for the period stated.

Source: World Bank (WDI)

Owner: EM-DAT: The OFDA/CRED International Disaster Database: www.emdat.be, Universite Catholique de Louvain, Brussels (Belgium), World Bank.

Egg production

Covers all domestic birds which have contributed to egg production during the year, wherever they lay and the corresponding total production, including eggs intended to be used for hatching but excluding waste on farms.

Eggs

Default composition: 1062 Eggs, hen, in shell, 1063 Eggs, liquid, 1064 Eggs, dried, 1091 Eggs, other bird, in shell; nutrient data only: 916 Egg albumine

Eggs primary production (tonnes)

See 'Eggs' and 'Egg production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Emissions

The release of greenhouse gases and/or their precursors into the atmosphere over a specified area and period of time.

Employees, agriculture, female (share of female employment)

Employees are people who work for a public or private employer and receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind.

Source: World Bank (WDI)

Owner: International Labour Organization, Key Indicators of the Labour Market database.

Employees, agriculture, male (share of male employment)

Employees are people who work for a public or private employer and receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind.

Source: World Bank (WDI)

Owner: International Labour Organization, Key Indicators of the Labour Market database.

Employment in agriculture (share of total employment)

Employees are people who work for a public or private employer and receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind.

Source: World Bank (WDI)

Owner: International Labour Organization, Key Indicators of the Labour Market database.

Employment, total

Employees are people who work for a public or private employer and receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind.

Source: World Bank

Owner: International Labour Organization, Key Indicators of the Labour Market database.

Enteric fermentation, total emissions in CO_2eq (gigagrams)

Greenhouse gas (GHG) emissions from enteric fermentation consist of methane gas produced in digestive systems of ruminants and to a lesser extent of non-ruminants.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Environmental Protection, Cash (Budg. Cen. Govt.) (share of total outlays)

See 'Government expenditure'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Environmental Protection, Noncash (Budg. Cen. Govt.) (share of total outlays)

See 'Government expenditure'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Evaporated and condensed milk production (tonnes)

See 'Milk excluding butter' and 'Milk production (tonnes)'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Export of forest products (USD)

Forest materials for commercial use.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Export of roundwood (m^3)

See 'Roundwood'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Exports of beverages (US$)

Value of exports of beverages in current US$.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Exports of cereals and prep. (US$)

Value of exports of cereals and prep. in current US$.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Exports of coffe, tea, cocoa, and spices (US$)

Value of exports of coffe, tea, cocoa, and spices in current US$.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Exports of dairy products (milk equivalent) (US$)

Value of exports of milk equivalent in current US$.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Exports of fish (US$)

Value of exports of fish in current US$ (data reported include fish, molluscs, crustaceans, and miscellaneous aquatic animals but excluding marine mammals, crocodiles, corals, pearls, sponges and aquatic plants, miscellaneous aquatic animal products and fish waste).

Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics)

Owner: FAO

Exports of fruit and vegetables (US$)

Value of exports of fruit and vegetables in current US$.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Exports of meat and meat prep. (US$)

Value of exports of meat and meat prep. in current US$.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Exports of oilseeds (US$)

Value of exports of oilseeds in current US$.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Exports of sugar and honey (US$)

Value of exports of sugar and honey in current US$.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Exports of veg. oils (US$)

Value of exports of veg. oils in current US$.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Fat supply quantity in crops primary equivalent (g/cap/day)

Fat supply quantity in crops primary equivalent.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Fats, Animals, Raw

Default composition: 869 Fat, cattle, 871 Fat, cattle butcher, 949 Fat, buffaloes, 979 Fat, sheep, 994 Grease incl. lanolin wool, 1019 Fat, goats, 1037 Fat, pigs, 1040 Fat, pig butcher, 1043 Lard, 1065 Fat, poultry, 1066 Fat, poultry, rendered, 1129 Fat, camels, 1160 Fat, other camelids, 1168 Oils, fats of animal nes, 1221 Lard stearine oil, 1222 Degras, 1225 Tallow, 1243 Fat, nes, prepared

FDI inward flows - Agriculture, hunting, forestry, fishing (current USD)

Inflows of foreign direct investment (FDI) in agriculture, hunting, forestry, and fishing.

Source: Foreign agriculture investment database

Owner: UNCTAD

FDI inward flows - Agriculture, hunting, forestry, fishing + Food, beverages, tobacco (current USD)

Inflows of foreign direct investment (FDI) in agriculture, hunting, forestry, and fishing + food, beverages, tobacco.

Source: Foreign agriculture investment database

Owner: UNCTAD

FDI inward flows - Food, beverages, tobacco (current USD)

Inflows of foreign direct investment (FDI) in food, beverages, tobacco.

Source: Foreign agriculture investment database

Owner: UNCTAD

Female employment, total

Employees are people who work for a public or private employer and receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind.

Source: World Bank

Owner: International Labour Organization, Key Indicators of the Labour Market database.

Fertilizers consumption

Mineral fertilizers made their appearance with the Industrial revolution and had an important role in sustaining the growing population of earth: half the population of earth are now estimated to be fed with crops grown using synthetic fertilizers (Erisman et al. 2008). Fertilizers can have a negative impact on the environment, leading to eutrophication and poisoning of water, and pollution of soil (e.g. heavy metals, soil acidification, POP-Persistent Organic Pollutants). Also, the production of fertilizers is energy intensive and mineable phosphorus reserves are finite.

Fertilizers Manufactured, nes

Mineral or chemical fertilizers not elsewhere specified.

Fertilizers, Organic

Animal or vegetable fertilizers, whether or not mixed together or chemically treated; fertilizers produced by the mixing or chemical treatment of animal or vegetable products.

Fibre crop harvested area (ha)

See 'Fibre crops' and 'Crop area'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Fibre crop yield (hg/ha)

See 'Fibre crops' and 'Crop yield'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Fibre crops

Natural fibre crops include Agave Fibres Nes, Cotton lint, Fibre Crops Nes, Flax fibre and tow, Hemp Tow Waste, Jute, Manila Fibre (Abaca), Other Bastfibres, Ramie, Seed cotton and Sisal.

Fibre crops production (tonnes)

See 'Fibre crops' and 'Crop production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Fish species, threatened

Fish species are based on Froese, R. and Pauly, D. (eds). 2008. Threatened species are the number of species classified by the IUCN as endangered, vulnerable, rare, indeterminate, out of danger, or insufficiently known.

Source: World Bank (WDI)

Owner: Froese, R. and Pauly, D. (eds). 2008. FishBase database, www.fishbase.org.

Fixed broadband Internet subscribers (per 100 people)

Fixed broadband Internet subscribers are the number of broadband subscribers with a digital subscriber line, cable modem, or other high-speed technology.

Source: World Bank (WDI)

Owner: International Telecommunication Union, World Telecommunication/ICT Development Report and database, and World Bank estimates.

Food

Data refer to the total amount of the commodity available as human food during the reference period. Data include the commodity in question, as well as any commodity derived therefrom as a result of further processing. Food from maize, for example, comprises the amount of maize, maize meal and any other products derived therefrom available for human consumption. Food from milk relates to the amounts of milk as such, as well as the fresh milk equivalent of dairy products.

Food net per capita production index number (2004-2006 = 100)

See 'Agricultural production indices'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Food Price Level Index (index)

The Domestic Food Price Level Index is calculated by dividing the Food Purchasing Power Parity (FPPP) by the General PPP, thus proiding an index of the price of food in the country relative to the price of the generic cosnumption basket. Data are available for 2005 from the ICP Program . It is then extended to other years by adjusting both numerator and denominator using the relative chenges in Food CPI and General CPI as provided by ILO.

Source: FAO, Statistics Division

Owner: ILO and World Bank ICP (International Comparison Project)

Food production

For primary commodities, production relates to the total domestic production whether inside or outside the agricultural sector, i.e. including non-commercial production and production in kitchen gardens. Unless otherwise indicated, production is reported at the farm level for primary crops (i.e. excluding harvesting losses for crops) and livestock items and in terms of live weight (i.e. the actual ex-water weight of the catch at the time of capture) for primary fish items. Production of processed commodities relates to the total output of the commodity at the manufacture level (i.e. it comprises output from domestic and imported raw materials of originating products). Reporting units are chosen accordingly, e.g. cereals are reported in terms of grains and paddy rice. As a general rule, all data on meat are expressed in terms of carcass weight. Usually the data on production relate to that which takes place during the reference period. However, production of certain crops may relate to the harvest of the year preceding the utilization period if harvesting takes place late in the year. In such instances, the production of a given year largely moves into consumption in the subsequent year. In the Food Balance Sheets a distinction is made between "output" and "input". The production of primary as well as of derived products is reported under "output". For derived commodities, the amounts of the originating commodity that are required for obtaining the output of the derived product are indicated under "input", and are expressed in terms of the originating commodity. The various factors used, i.e. milling rates, extraction rates, conversion or processing factors, carcass weights, milk yield, egg weights etc., should indicate the average national rate at which these commodities are generally converted.

Food supply in crops primary equivalent (kcal/cap/day)

Food supply in crops primary equivalent.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Foreign direct investment, net inflows (percent of GDP)

Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP.

Source: World Bank (WDI)

Owner: International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, Global Development Finance, and World Bank and OECD GDP estimates.

Forest area (ha)

Forest area is the land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use. Forest is determined both by the presence of trees and the absence of other predominant land uses. The trees should be able to reach a minimum height of 5 metres (m) in situ. Areas under reforestation that have not yet reached but are expected to reach a canopy cover of 10 percent and a tree height of 5 m are included, as are temporarily unstocked areas, resulting from human intervention or natural causes, which are expected to regenerate. Includes: areas with bamboo and palms provided that height and canopy cover criteria are met; forest roads, firebreaks and other small open areas; forest in national parks, nature reserves and other protected areas such as those of specific scientific, historical, cultural or spiritual interest; windbreaks, shelterbelts and corridors of trees with an area of more than 0.5 ha and width of more than 20 m; plantations primarily used for forestry or protective purposes, such as: rubber-wood plantations and cork, oak stands. Excludes: tree stands in agricultural production systems, for example in fruit plantations and agroforestry systems. The term also excludes trees in urban parks and gardens.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Freshwater Fish

Default composition: 1501 Frwtr Diad F, 1502 Frwtr Fz Whl, 1503 Frwtr Fillet, 1504 Frwtr Fz Flt, 1505 Frwtr Cured, 1506 Frwtr Canned, 1507 Frwtr Pr nes, 1508 Frwtr Meals

Fruit harvested area (ha)

See 'Fruit, excluding melons' and 'Crop area'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Fruit production, excluding melons (tonnes)

See 'Fruit, excluding melons' and 'Crop production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Fruit yield (hg/ha)

See 'Fruit, excluding melons' and 'Crop yield'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Fruit, citrus nes

Including inter alia: bergamot (Citrus bergamia); citron (C. medica var. cedrata); chinotto (C. myrtifolia); kumquat (Fortunella japonica). Some minor varieties of citrus are used primarily in the preparation of perfumes and soft drinks.

Fruit, excluding melons

Fruit Crops consist of fruits and berries that, with few exceptions, are characterized by their sweet taste. Nearly all are permanent crops, mainly from trees, bushes and shrubs, as well as vines and palms. Fruits and berries grow on branches, stalks or the trunks of plants, usually singly, but sometimes grouped in bunches or clusters (e.g. bananas and grapes). Commercial crops are cultivated in plantations, but significant quantities of fruits are also collected from scattered plants that may or may not be cultivated.

Fruit, fresh nes

Including inter alia: azarole (Crataegus azarolus); babaco (Carica pentagona); elderberry (Sambucus nigra); jujube (Zizyphus jujuba); litchi (nephelium litchi); loquat (Eriobotrya japonica); medlar (Mespilus germanica); pawpaw (Asimina triloba); pomegranate (Punica granatum); prickly pear (Opuntia ficus-indica); rose hips (Rosa spp.); rowanberry (Sorbus aucuparia); service-apple (Sorbus domestica); tamarind (Tamarindus indica); tree-strawberry (Arbutus unedo). Other fresh fruit that are not identified separately because of their minor relevance at the international level. Because of their limited local importance, some countries report fresh fruit under this heading that are classified separately by FAO.

GDP (current US$)

GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates. For a few countries where the official exchange rate does not reflect the rate effectively applied to actual foreign exchange transactions, an alternative conversion factor is used.

Source: World Bank (WDI)

Owner: World Bank national accounts data, and OECD National Accounts data files.

GINI index

Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

Source: World Bank (WDI)

Owner: World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database. For more information and methodology, please see PovcalNet (http://iresearch.worldbank.org/PovcalNet/index.htm).

Global 5-Year running mean land-ocean temperature index (degree Celsius)

Global 5-years running mean land-ocean temperature index, with base period 1951-1980.

Source: NASA

Owner: Hansen et al. 2007

Global annual mean land-ocean temperature index (degree Celsius)

Global annual mean land-ocean temperature index, with base period 1951-1980.

Source: NASA

Owner: Hansen et al. 2006

Global annual mean land-ocean temperature index, low latitudes 23.6N-23.6S (degree Celsius)

Global annual mean land-ocean temperature index, low latitudes 23.6N-23.6S with base period 1951-1980.

Source: NASA

Owner: Hansen et al. 2009

Global annual mean land-ocean temperature index, northern latitudes 90N-23.6N (degree Celsius)

Global annual mean land-ocean temperature index, northern latitudes 90N-23.6N with base period 1951-1980.

Source: NASA

Owner: Hansen et al. 2008

Global annual mean land-ocean temperature index, southern latitudes 23.6S-90S (degree Celsius)

Global annual mean land-ocean temperature index, southern latitudes 23.6S-90S with base period 1951-1980.

Source: NASA

Owner: Hansen et al. 2010

GNI per capita, Atlas method (current US$)

GNI per capita (formerly GNP per capita) is the gross national income, converted to U.S. dollars using the World Bank Atlas method, divided by the midyear population. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI, calculated in national currency, is usually converted to U.S. dollars at official exchange rates for comparisons across economies, although an alternative rate is used when the official exchange rate is judged to diverge by an exceptionally large margin from the rate actually applied in international transactions. To smooth fluctuations in prices and exchange rates, a special Atlas method of conversion is used by the World Bank. This applies a conversion factor that averages the exchange rate for a given year and the two preceding years, adjusted for differences in rates of inflation between the country, and through 2000, the G-5 countries (France, Germany, Japan, the United Kingdom, and the United States). From 2001, these countries include the Euro area, Japan, the United Kingdom, and the United States.

Source: World Bank (WDI)

Owner: World Bank national accounts data, and OECD National Accounts data files.

Goats

Includes Hircus, Ibex, Nubiana, Pyrenaica, Tibetana, Kashmir and Angora.

Government expenditure

Data presented on government expenditure refers to Core Areas of Government Functions Relevant to the Agriculture Sector based on the Classification of Functions of Government (COFOG) as outlined in the IMF's Government Finance Statistics Manual, 2001 (GFSM 2001). COFOG is essential for making international comparisons of the extent to which governments are involved in economic and social functions because it avoids problems associated with organizational changes in a single government, and problems of organizational differences among countries. Statistics on expenditures in agriculture, forestry and fisheries and on environmental protection can be used to study the effectiveness of government programs that support an enabling environment for essential public goods with high economic and social returns. COFOG provides key aggregates that could be used as indicators or measures of results / outcomes.

Government expenditure allocated to agricultural and rural development

Data on government expenditure on agriculture refers to all non-repayable payments, whether capital or current, requited or not by government for the agricultural and rural development sector.

Grain, mixed

A mixture of cereal species that are sown and harvested together. The mixture wheat/rye is known as meslin, but in trade is usually classified with wheat.

Grapes

Default composition: 560 Grapes, 561 Raisins, 562 Juice, grape, 563 Grapes, must

Gross capital stock (constant 2005 prices)

The estimate of capital stock in agriculture refers to a value that is attached to the total physical capital capacity available for repeated use in the production of other goods, in existence at specific point in time in the economy of agriculture sector. The estimates of investment in agriculture have indirectly been derived by the FAO FAO, Statistics Division using physical data on livestock, tractors, irrigated land and land under permanent crops etc., and the average prices for the year 1995. These data enabled the derivation of the capital stock in agriculture which is the gross, and the annual change in the latter is taken to reflect investment in agriculture.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Gross capital stock, land development (constant 2005 prices)

See 'Gross capital stock (constant 2005 prices)'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Gross capital stock, livestock fixed assets (constant 2005 prices)

See 'Gross capital stock (constant 2005 prices)'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Gross capital stock, livestock inventory (constant 2005 prices)

See 'Gross capital stock (constant 2005 prices)'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Gross capital stock, machinery & equipment (constant 2005 prices)

See 'Gross capital stock (constant 2005 prices)'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Gross capital stock, plantation crops (constant 2005 prices)

See 'Gross capital stock (constant 2005 prices)'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Gross capital stock, structures for livestock (constant 2005 prices)

See 'Gross capital stock (constant 2005 prices)'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Groundnut Oil

Default composition: 244 Oil, groundnut

Health expenditure, total (percent of GDP)

Total health expenditure is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.

Source: World Bank (WDI)

Owner: World Health Organization National Health Account database (see http://apps.who.int/nha/database for the most recent updates).

Honey, natural

Honey produced by bees (Apis mellifera) or by other insects.

Import of forest products (USD)

Forest materials for commercial use.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Import of roundwood (m^3)

See 'Roundwood'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Import value index (2004-2006 = 100)

Value indices represent the change in the current values of Import c.i.f. (cost, insurance and freight) all expressed in US dollars. For countries which report import values on an f.o.b. (free on board) basis, these are adjusted to approximate c.i.f. values (by a standard factor of 112 percent).

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Imports of fish (US$)

Value of imports of fish in current US$ (data reported include fish, molluscs, crustaceans, and miscellaneous aquatic animals but excluding production for marine mammals, crocodiles, corals, pearls, sponges and aquatic plants, miscellaneous aquatic animal products and fish waste).

Source: Fisheries and Aquaculture Department (Fishery and Aquaculture statistics)

Owner: FAO

Income share held by highest 20% (percent)

Percentage share of income or consumption is the share that accrues to subgroups of population indicated by deciles or quintiles. Percentage shares by quintile may not sum to 100 because of rounding.

Source: World Bank (WDI)

Owner: World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database. For more information and methodology, please see PovcalNet (http://iresearch.worldbank.org/PovcalNet/index.htm).

Income share held by lowest 20% (percent)

Percentage share of income or consumption is the share that accrues to subgroups of population indicated by deciles or quintiles. Percentage shares by quintile may not sum to 100 because of rounding.

Source: World Bank (WDI)

Owner: World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database. For more information and methodology, please see PovcalNet (http://iresearch.worldbank.org/PovcalNet/index.htm).

Industrial roundwood

The wood removed (volume of roundwood under bark) for production of goods and services other than energy production (woodfuel). It represents the sum of: sawlogs and veneer logs; pulpwood, round and split; and other industrial roundwood. See http://www.fao.org/forestry/62283/en/ for further information.

Industrial roundwood production (m^3)

See 'Industrial roundwood' and 'Production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Industrial water withdrawal, share of total water withdrawal (percent)

Industrial water withdrawal as percentage of total water withdrawal.

Source: Land and Water Division (AQUASTAT)

Owner: FAO

Industry, value added (percent of GDP)

Industry corresponds to ISIC divisions 10-45 and includes manufacturing (ISIC divisions 15-37). It comprises value added in mining, manufacturing (also reported as a separate subgroup), construction, electricity, water, and gas. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3. Note: For VAB countries, gross value added at factor cost is used as the denominator.

Source: World Bank (WDI)

Owner: World Bank national accounts data, and OECD National Accounts data files.

Internally displaced persons, total

Internally Displaced Persons (IDPs) are people or groups of individuals who have been forced to leave their homes or places of habitual residence, in particular as a result of, or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural- or human-made disasters, and who have not crossed an international border. For purposes of UNHCR's statistics, this population only includes conflict-generated IDPs to whom the Office extends protection and/or assistance. As such, UNHCR statistics do not provide a comprehensive picture of global internal displacement. Moreover, UNHCR's IDP statistics are not necessarily representative of the entire IDP population in a given country but are exclusively limited to the ones who are protected and/or assisted by the Office. For global IDP estimates, consult the Internal Displacement Monitoring Centre (IDMC) of the Norwegian Refugee Council (NRC) website. The 2007 IDP population category also includes people in IDP-like situations. This sub-category is descriptive in nature and includes groups of persons who are inside their country of nationality or habitual residence and who face protection risks similar to those of IDPs but who, for practical or other reasons, could not be reported as such.

Source: Statistical Online Population Database

Owner: UNHCR

Irrigation potential (ha)

Area of land which is potentially irrigable. Country/regional studies assess this value according to different methods. For example, some consider only land resources, others consider land resources plus water availability, others include economical aspects in their assessments (such as distance and/or difference in elevation between the suitable land and the available water) or environmental aspects, etc. If available, this information is given in the individual country profiles. The figure includes the area already under agricultural water management .

Source: Land and Water Division (AQUASTAT)

Owner: FAO

Jute and jute-like

White jute (Corchorus capsularis); red jute, tossa (C. olitorius). Trade data cover raw or processed jute (but not spun), tow and waste, yarn waste and garnetted stock and may include jute-like fibres.

Jute and jute-like harvested area (ha)

See 'Jute and jute-like' and 'Crop area'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Jute and jute-like production (tonnes)

See 'Jute and jute-like' and 'Crop production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Jute and jute-like yield (hg/ha)

See 'Jute and jute-like' and 'Crop yield'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Labor participation rate, female (share of female population ages 15+)

Labor force participation rate is the proportion of the population ages 15 and older that is economically active: all people who supply labor for the production of goods and services during a specified period.

Source: World Bank (WDI)

Owner: International Labour Organization, Key Indicators of the Labour Market database.

Labor participation rate, male (share of male population ages 15+)

Labor force participation rate is the proportion of the population ages 15 and older that is economically active: all people who supply labor for the production of goods and services during a specified period.

Source: World Bank (WDI)

Owner: International Labour Organization, Key Indicators of the Labour Market database.

Land area (sq. km)

Land area is a country's total area, excluding area under inland water bodies, national claims to continental shelf, and exclusive economic zones. In most cases the definition of inland water bodies includes major rivers and lakes.

Source: World Bank (WDI)

Owner: Food and Agriculture Organization, electronic files and web site.

Life expectancy at birth, total (years)

Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

Source: World Bank (WDI)

Owner: UNPD World Population Prospects 2010

Literacy rate, adult female (percent of females ages 15 and above)

Adult literacy rate is the percentage of people ages 15 and above who can, with understanding, read and write a short, simple statement on their everyday life.

Source: World Bank (WDI)

Owner: United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics.

Livestock

Animals such as cattle and sheep which are kept on the holding or otherwise for agricultural production.

Maize

Zea mays Corn, Indian corn, mealies. A grain with a high germ content. At the national level, hybrid and ordinary maize should be reported separately owing to widely different yields and uses. Used largely for animal feed and commercial starch production.

Male employment, total

Employees are people who work for a public or private employer and receive remuneration in wages, salary, commission, tips, piece rates, or pay in kind.

Source: World Bank

Owner: International Labour Organization, Key Indicators of the Labour Market database.

Mammal species, threatened

Mammal species are mammals excluding whales and porpoises. Threatened species are the number of species classified by the IUCN as endangered, vulnerable, rare, indeterminate, out of danger, or insufficiently known.

Source: World Bank (WDI)

Owner: United Nations Environmental Program and the World Conservation Monitoring Centre, and International Union for Conservation of Nature, Red List of Threatened Species.

Manufactures Unit Value (MUV) (index)

The MUV is a composite index of prices for manufactured exports from the fifteen major developed and emerging economies to low- and middle-income economies, valued in U.S. dollars. For the MUV (15) index, unit value indexes in local currency for each country are converted to U.S. dollars using market exchange rates and are combined using weights determined by the share of each country's exports in G15 exports to low- and middle-income countries. The shares are calculated using SITC revision 3 Manufactures exports data from UN COMTRADE in 2005, the base year. The primary manufacturing prices index source is OECD's Domestic Producer Price Index (PPI) for manufacturing. Whenever PPI is not available, export price indexes or the export unit values are used as proxies. The countries and relative weights (in parentheses) are: Brazil (2.95%), Canada (0.93%), China (11.79%), France (5.87%), Germany (13.29%), India (1.77%), Italy (6.07%), Japan (16.70%), Mexico (0.93%), South Africa (0.75%), South Korea (10.95%), Spain (2.30%), Thailand (2.51%), United Kingdom (3.50%), and United States (19.68%).

Source: World Bank

Owner: World Bank, Development Prospects Group; Historical US GDP deflator: US Department of Commerce.

Manure applied to soils, total emissions in CO_2eq (gigagrams)

Greenhouse gas (GHG) emissions from manure applied to soils consist of nitrous oxide gas from nitrogen additions to managed soils from treated manure.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Manure left on pasture, total emissions in CO_2eq (gigagrams)

Greenhouse Gases (GHG) emissions data from manure left on pasture consist of nitrous oxide gas from nitrogen additions to managed soils from grazing livestock.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Manure management, total emissions in CO_2eq (gigagrams)

Greenhouse gas (GHG) emissions from manure management consist of methane and nitrous oxide gases from aerobic and anaerobic decomposition processes.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Marine protected areas (share of territorial waters)

Marine protected areas are areas of intertidal or subtidal terrain–and overlying water and associated flora and fauna and historical and cultural features–that have been reserved by law or other effective means to protect part or all of the enclosed environment.

Source: World Bank (WDI)

Owner: United Nations Environmental Program and the World Conservation Monitoring Centre, as compiled by the World Resources Institute, based on data from national authorities, national legislation and international agreements.

Meat, ass

Including frog legs, marine mammals, etc. Some countries includeunder this heading meats that are listed above, but which are notreported separately. Fresh, chilled or frozen.

Meat, beef, preparations

Meat and offal (o/t liver) that are boiled, steamed, grilled, fried,roasted or otherwise cooked. Includes prepared meals that contain morethan 20% of meat and offal by weight.

Meat, total

Meat from animals, fresh, chilled or frozen, with bone in. All data shown relate to total meat production from both commercial and farm slaughter. Data are given in terms of dressed carcass weight, i.e. excluding offals and slaughter fats.

Meat, total (tonnes)

See 'Meat, total' and 'Production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Milk

Whole fresh milk production from Buffalos, Camels, Cows, Goats and Sheep.

Milk excluding butter

Default composition: 882 Milk, whole fresh cow, 888 Milk, skimmed cow, 889 Milk, whole condensed, 890 Whey, condensed, 891 Yoghurt, 892 Yoghurt, concentrated or not, 893 Buttermilk, curdled, acidified milk, 894 Milk, whole evaporated, 895 Milk, skimmed evaporated, 896 Milk, skimmed condensed, 897 Milk, whole dried, 898 Milk, skimmed dried, 899 Milk, dry buttermilk, 900 Whey, dry, 901 Cheese, whole cow milk, 904 Cheese, skimmed cow milk, 905 Whey, cheese, 907 Cheese, processed, 908 Milk, reconstituted, 917 Casein, 951 Milk, whole fresh buffalo, 954 Milk, skimmed buffalo, 955 Cheese, buffalo milk, 982 Milk, whole fresh sheep, 984 Cheese, sheep milk, 985 Milk, skimmed sheep, 1020 Milk, whole fresh goat, 1021 Cheese of goat mlk, 1023 Milk, skimmed goat, 1130 Milk, whole fresh camel; nutrient data only: 903 Whey, fresh, 909 Milk, products of natural constituents nes, 910 Ice cream and edible ice

Milk production (tonnes)

Production data of milk indicates the quantity of milk produced during the year from the animals of the species to which the Supply Utilization Accounts refer. Milk production data is reported according to the concept of net milk production: total production of whole fresh milk, excluding the milk sucked by young animals but including amounts fed to livestock.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Mobile cellular subscriptions (per 100 people)

Mobile cellular telephone subscriptions are subscriptions to a public mobile telephone service using cellular technology, which provide access to the public switched telephone network. Post-paid and prepaid subscriptions are included.

Source: World Bank (WDI)

Owner: International Telecommunication Union, World Telecommunication/ICT Development Report and database, and World Bank estimates.

Mortality rate, infant (per 1000 live births)

Infant mortality rate is the number of infants dying before reaching one year of age, per 1000 live births in a given year.

Source: World Bank (WDI)

Owner: UNICEF, WHO, World Bank and UNPD

Mortality rate, under-5 (per 1,000 live births)

Under-five mortality rate is the probability per 1,000 that a newborn baby will die before reaching age five, if subject to current age-specific mortality rates.

Source: World Bank (WDI)

Owner: Level & Trends in Child Mortality. Report 2011. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, World Bank, UN DESA, UNPD).

Municipal water withdrawal, share of total water withdrawal (percent)

Municipal water withdrawal as percentage of total water withdrawal.

Source: Land and Water Division (AQUASTAT)

Owner: FAO

Natural Phosphates

Products obtained by grinding soft mineral phosphates and containing tricalcium phosphate and calcium carbonate as essential ingredients. The minimum content of nutrients is 25% P2O5 (Phosphorus expressed as P2O5 soluble in mineral acids, at least 55% of the declared content of P2O5 being soluble in 2% formic acid).

Natural Sodium Nitrate

Chemically obtained product containing sodium nitrate as its essential ingredient. The minimum content of nutrients is 15% N (Nitrogen expressed as nitric nitrogen).

Net forest conversion, net emissions/removal in CO_2eq (gigagrams)

GHG emissions data from forest land are currently limited to emissions from net forest conversion to non-forest land. They consist of the balance of CO_2 sources and sinks associated with deforestation and afforestation activities within a country.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Net official development assistance and official aid received (current US$)

Net official development assistance (ODA) consists of disbursements of loans made on concessional terms (net of repayments of principal) and grants by official agencies of the members of the Development Assistance Committee (DAC), by multilateral institutions, and by non-DAC countries to promote economic development and welfare in countries and territories in the DAC list of ODA recipients. It includes loans with a grant element of at least 25 percent (calculated at a rate of discount of 10 percent). Net official aid refers to aid flows (net of repayments) from official donors to countries and territories in part II of the DAC list of recipients: more advanced countries of Central and Eastern Europe, the countries of the former Soviet Union, and certain advanced developing countries and territories. Official aid is provided under terms and conditions similar to those for ODA. Part II of the DAC List was abolished in 2005. The collection of data on official aid and other resource flows to Part II countries ended with 2004 data. Data are in current U.S. dollars.

Source: World Bank (WDI)

Owner: Development Assistance Committee of the Organisation for Economic Co-operation and Development, Geographical Distribution of Financial Flows to Developing Countries, Development Co-operation Report, and International Development Statistics database. Data

Nitrogen fertilizers consumption (tonnes of N total nutrients)

Nitrogen fertilizers consumption.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Number of people undernourished, total

Estimated number of people at risk of undernourishment. It is calculated by applying the estimated prevalence of undernourishment to the total population in each period.

Source: FAO, Statistics Division

Owner: FAO

ODA received for agriculture sector (US$)

See 'Official Development Assistance'

Source: FAO, Statistics Division

Owner: The EAA dataset is compiled from OECD (as given included in the OECD internet home-page), DAC Reports, Annual Reports of the World Bank and data received from other organizations on regional development. The data are processed by following a series of steps such as analyses, including systematic checking and verifications at various stages for enhancing the quality of the data prior to dissemination on FAOSTAT.

ODA received for fishing sector (US$)

See 'Official Development Assistance'

Source: FAO, Statistics Division

Owner: The EAA dataset is compiled from OECD (as given included in the OECD internet home-page), DAC Reports, Annual Reports of the World Bank and data received from other organizations on regional development. The data are processed by following a series of steps such as analyses, including systematic checking and verifications at various stages for enhancing the quality of the data prior to dissemination on FAOSTAT.

ODA received for forestry sector (US$)

See 'Official Development Assistance'

Source: FAO, Statistics Division

Owner: The EAA dataset is compiled from OECD (as given included in the OECD internet home-page), DAC Reports, Annual Reports of the World Bank and data received from other organizations on regional development. The data are processed by following a series of steps such as analyses, including systematic checking and verifications at various stages for enhancing the quality of the data prior to dissemination on FAOSTAT.

Official Development Assistance

The concessional (Official Development Assistance, ODA) and non-Concessional commitments made by bilateral and multilateral donors to developing countries is referred to as 'External Assistance to Agriculture'. The term 'Agriculture' is generally used in the broad sense to cover agriculture, forestry, fisheries, land and water, agro-industries, environment, manufacturing of agricultural inputs and machinery, regional and river development, and rural development. The narrow concept of agriculture has also been defined to look at the contribution made to develop agriculture in a strict sense. This includes assistance provided for the development of agriculture (crop and animal husbandry), forestry, fisheries (including training, extension and research) and development of land and water resources.

Oil-bearing crops

Oil-bearing crops or oil crops include both annual (usually called oilseeds) and perennial plants whose seeds, fruits or mesocarp and nuts are valued mainly for the edible or industrial oils that are extracted from them. They include: Castor oil seed, Coconuts, Cottonseed, Groundnuts, with shell, Hempseed, Jojoba Seeds, Karite Nuts (Sheanuts), Linseed, Melonseed, Mustard seed, Oil palm fruit, Oilseeds, Nes, Olives, Palm kernels, Palm oil, Poppy seed, Rapeseed, Safflower seed, Seed cotton, Sesame seed, Soybeans, Sunflower seed and Tung Nuts.

Oil-bearing crops harvested area, share of world total

See 'Oil-bearing crops' and 'Crop area'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Oil-bearing crops production (tonnes)

See 'Oil-bearing crops' and 'Crop production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Oil-bearing crops yield (hg/ha)

See 'Oil-bearing crops' and 'Crop yield'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Oil, maize

Extracted from germ by pressure or by solvents.

Oil, palm

Obtained from the mesocarp of the fruit of the oil palm by pressure, and also by solvent from the residues of the pressure extraction.

Oilcrops Oil, Other

Default composition: 263 Karite nuts (sheanuts), 265 Castor oil seed, 275 Tung nuts, 277 Jojoba seed, 280 Safflower seed, 296 Poppy seed, 299 Melonseed, 305 Tallowtree seed, 310 Kapok fruit, 311 Kapokseed in shell, 312 Kapokseed shelled, 333 Linseed, 336 Hempseed, 339 Oilseeds nes, 343 Flour, oilseeds

Oilseeds exports (tonnes)

Exports (volume) of oilseeds.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Oilseeds imports (tonnes)

Imports (volume) of oilseeds.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Oilseeds nes

Includes inter alia: beech nut (Fagus sylvatica);(Aleurites moluccana);(Carapa guineensis);(Croton tiglium);(Bassia latifolia);(Guizotia abyssinica);(Licania rigida);(Perilla frutescens);(Jatropha curcas);(Shorea robusta);(Pongamia glabra);(Astrocaryum spp.). Other oilseeds, oleaginous fruits and nuts that are not identified separately because of their minor relevance at the international level. Because of their limited local importance, some countries report commodities under this heading that are classified individually by FAO. Also included under this code are tea seeds, grape pips and tomato seeds from which oil is extracted.

Olive Oil

Default composition: 261 Oil, olive, virgin, 274 Oil, olive residues

Organic water pollutant (BOD) emissions (kg per day per worker)

Emissions per worker are total emissions of organic water pollutants divided by the number of industrial workers. Organic water pollutants are measured by biochemical oxygen demand, which refers to the amount of oxygen that bacteria in water will consume in breaking down waste. This is a standard water-treatment test for the presence of organic pollutants.

Source: World Bank (WDI)

Owner: World Bank and UNIDO's industry database.

Organic water pollutant (BOD) emissions (kg per day)

Emissions of organic water pollutants are measured by biochemical oxygen demand, which refers to the amount of oxygen that bacteria in water will consume in breaking down waste. This is a standard water-treatment test for the presence of organic pollutants.

Source: World Bank (WDI)

Owner: 1998 study by Hemamala Hettige, Muthukumara Mani, and David Wheeler, "Industrial Pollution in Economic Development: Kuznets Revisited" (available at www.worldbank.org/nipr). The data were updated by the World Bank's Development Research Group using the same methodology as the initial study.

Other land (ha)

Other land is the land not classified as Agricultural land and Forest area. It includes built-up and related land, barren land, other wooded land, etc.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Other naturally regenerated forest (ha)

Naturally regenerated forest is forest predominantly composed of trees established through natural regeneration. Other naturally regenerated forest is forest where there are clearly visible indications of human activities.

Source: Global Forest Resources Assessment

Owner: FAO

Others and stateless, total

Population of concern to UNHCR, others and stateless.

Source: Statistical Online Population Database

Owner: UNHCR

Palmkernel Oil

Default composition: 258 Oil, palm kernel

Paper and paperboard

The sum of Paper and Paperboard, Newsprint, Paper and Paperboard other than Newsprint, Printing and Writing Paper, Other Paper and Paperboard, Household and Sanitary Paper, Wrapping and Packaging Paper and Paperboard and Other Paper and Paperboard Not Elsewhere Specified. See http://www.fao.org/forestry/62283/en/ for further information.

Paper and paperboard production (tonnes)

See 'Paper and paperboard' and 'Production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Part of equipped area actually irrigated (percent)

Percent of area equipped for irrigation that is actually irrigated in any given year, expressed in percentage. Irrigated land that is cultivated more than once a year is counted only once.

Source: Land and Water Division (AQUASTAT)

Owner: FAO

Pastry

All baked products excluding those listed under bread. Pastry products may contain ingredients other than wheat flour, such as milk, eggs, sugar, honey, starch, fats, fruit, seeds, etc.

Per Capita food production variability (index)

Per capita food production variability corresponds to the variability of the net food production value in constant 2004-2006 1000 International $ (Net Food PIN) divided by the population number as from UN 2010 estimates. Variability is based on the trend of the Net Food PIN per capita over the period 1985 to 2010 and corresponds to the standard deviation of the deviation from the trend over a period of 5 years. Missing values for Eritrea/Ethiopia, former Yugoslavia and Caucasus countries for 1985 to 1992 are estimated backward using the share of the value of food production of each country in the total value of the region it belonged to prior to 1992.

Source: FAO, Statistics Division

Owner: FAO

Per Capita food supply variability (index)

Food supply variability correspond to the variable Food supply total in kcal/person/day as estimated by the FAO Statistic Division. The variability is obtained as the standard deviation over 5 years of the deviation from the trend of per capita food supply observed during the period 1990 to 2010.

Source: FAO, Statistics Division

Owner: FAO

Per capita supply

Estimates of per capita food supplies available for human consumption during the reference period in terms of quantity, caloric value, protein and fat content. Calorie supplies are reported in kilocalories (1 calorie = 4.19 kilojoules). Per capita supplies in terms of product weight are derived from the total supplies available for human consumption (i.e. Food) by dividing the quantities of Food by the total population actually partaking of the food supplies during the reference period, i.e. the present in-area (de facto) population within the present geographical boundaries of the country. In other words, nationals living abroad during the reference period are excluded, but foreigners living in the country are included. Adjustments are made wherever possible for part-time presence or absence, such as temporary migrants, tourists and refugees supported by special schemes (if it has not been possible to allow for the amounts provided by such schemes under imports). In almost all cases, the population figures used are the mid-year estimates published by the United Nations Population Division. Per capita supply figures shown in the commodity balances therefore represent only the average supply available for the population as a whole and do not necessarily indicate what is actually consumed by individuals. Even if they are taken as approximation to per capita consumption, it is important to note that the amount of food actually consumed may be lower than the quantity shown here, depending on the degree of losses of edible food and nutrients in the household, e.g. during storage, in preparation and cooking etc. In many cases commodities are not consumed in the primary form in which they are presented in the commodity balance, e.g. cereals enter the household mainly in processed form like flour, meal, husked or milled rice. To take this fact into account, the caloric value, the protein and fat content shown against primary commodities in the commodity balances have been derived by applying the appropriate food composition factors to the quantities of the processed commodities and not by multiplying the quantities shown in the commodity balance with the food composition factors relating to primary commodities.

Percent of adults who are underweight (percent)

Percentage of adults who are underweight, as defined by a Body Mass Index (BMI) below the international reference standard of 18.5. To calculate an individual's BMI, weight and height data are need. The BMI is weight (kg) divided by squared height (m).

Source: FAO, Statistics Division

Owner: World Health Organization (WHO)

Percent of arable land equipped for irrigation (percent)

Percent of arable land equipped for irrigation. The indicator is calculated on 3 year averages.

Source: FAO, Statistics Division

Owner: FAO

Percent of paved roads over total roads (percent)

Paved roads are those surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agents, with concrete, or with cobblestones, as a percentage of all the country's roads, measured in length. Regional aggregates are computed as weighted average using total road network as weight. Because of the low coverage, missing values were interpolated using linear trend between two points or extrapolated backward and forward using the closest point. Note that regional aggregates were calculated only if countries for which data were available represented more than 70% of the total lenght of road network of the region they belong to.

Source: FAO, Statistics Division

Owner: International Road Federation, World Road Statistics and electronic files, except where noted.

Percentage of children under 5 years of age who are stunted (percent)

Percentage of stunting (height-for-age less than -2 standard deviations of the WHO Child Growth Standards median) among children aged 0-5 years.

Source: FAO, Statistics Division

Owner: World Health Organization (WHO)

Percentage of children under 5 years of age who are underweight (percent)

Percentage of underweight (weight-for-age less than -2 standard deviations of the WHO Child Growth Standards median) among children aged 0-5 years.

Source: FAO, Statistics Division

Owner: World Health Organization (WHO)

Percentage of children under 5 years of age who are wasted (percent)

Percentage of (weight-for-height less than -2 standard deviations of the WHO Child Growth Standards median) among children aged 0-5 years.

Source: FAO, Statistics Division

Owner: World Health Organization (WHO)

Percentage of population with no reasonable access to improved sanitation facilities (percent)

Access to improved sanitation facilities refers to the percentage of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. To

be effective, facilities must be correctly constructed and properly maintained.

Source: FAO, Statistics Division

Owner: World Health Organization (WHO)

Percentage of population with no reasonable access to improved water sources (percent)

Access to an improved water source refers to the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as a household connection, public standpipe, borehole, protected well or spring, and rainwater collection. Unimproved sources include vendors, tanker trucks, and unprotected wells and springs. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within one kilometer of the dwelling.

Source: FAO, Statistics Division

Owner: World Health Organization (WHO)

Permanent crops (ha)

Permanent crops is the land cultivated with long-term crops which do not have to be replanted for several years (such as cocoa and coffee); land under trees and shrubs producing flowers, such as roses and jasmine; and nurseries (except those for forest trees, which should be classified under "forest"). Permanent meadows and pastures are excluded from land under permanent crops.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Permanent meadows and pastures (ha)

Permanent meadows and pastures is the land used permanently (five years or more) to grow herbaceous forage crops, either cultivated or growing wild (wild prairie or grazing land). Data are expressed in 1000 hectares.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Pesticide consumption

Data refer to quantities of pesticides applied to crops and seeds in the agriculture sector. Figures are generally expressed in terms of active ingredients. Data are expressed in tonnes (t). However, due to some country reporting practices, the data may be reported by: consumption in formulated product (including diluents and adjuvants); sales; distribution or imports for use in the agricultural sector. In these cases it is specified in the country notes.

Pesticides

Pesticides refer to insecticides, fungicides, herbicides, disinfectants and any substance or mixture of substances intended for preventing, destroying or controlling any pest, including vectors of human or animal disease, unwanted species of plants or animals causing harm during or otherwise interfering with the production, processing, storage, transport or marketing of food, agricultural commodities, wood and wood products or animal feedstuffs, or substances which may be administered to animals for the control of insects, arachnids or other pests in or on their bodies. The term includes substances intended for use as a plant growth regulator, defoliant, desiccant or agent for thinning fruit or preventing the premature fall of fruit, and substances applied to crops either before or after harvest to protect the commodity from deterioration during storage and transport.

Phosphate fertilizers consumption (tonnes of P205 total nutrients)

Phosphate fertilizers consumption.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Pig meat

Meat, with the bone in, of domestic or wild pigs (e.g. wild boars),whether fresh, chilled or frozen.

Pig meat per capita (tonne/cap)

See 'Pig meat' and 'Production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Pigs

Domestic pig (Sus domestica); wild boar (Sus scrofa). See 866. Excludes non-domesticated wild boars.

Plant species (higher), threatened

Higher plants are native vascular plant species. Threatened species are the number of species classified by the IUCN as endangered, vulnerable, rare, indeterminate, out of danger, or insufficiently known.

Source: World Bank (WDI)

Owner: United Nations Environmental Program and the World Conservation Monitoring Centre, and International Union for Conservation of Nature, Red List of Threatened Species.

Planted forest (ha)

Planted forest is forest predominantly composed of trees established through planting and/or deliberate seeding.

Source: Global Forest Resources Assessment

Owner: FAO

Political stability and absence of violence/terrorism (index)

Political stability and absence of violence measures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.

Source: FAO, Statistics Division

Owner: WorldWide Governance Indicators

Population ages 0-14, total

Population with age between 0 and 14 years.

Source: United Nations Population Division

Owner: United Nations Population Division, World Population Prospects.

Population ages 15-64, total

Population with age between 15 and 64 years.

Source: United Nations Population Division

Owner: United Nations Population Division, World Population Prospects.

Population ages 65 and above, total

Population with age above 65.

Source: United Nations Population Division

Owner: United Nations Population Division, World Population Prospects.

Population density (people per sq. km of land area)

Population density is midyear population divided by land area in square kilometers. Population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship–except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin. Land area is a country's total area, excluding area under inland water bodies, national claims to continental shelf, and exclusive economic zones. In most cases the definition of inland water bodies includes major rivers and lakes.

Source: World Bank (WDI)

Owner: Food and Agriculture Organization and World Bank population estimates.

Population living in areas where elevation is below 5 meters (share of total population)

Population below 5m is the percentage of the total population living in areas where the elevation is 5 meters or less.

Source: World Bank (WDI)

Owner: Center for International Earth Science Information Network (CIESIN), Place II dataset.

Population, total

Total population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship–except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin. The values shown are midyear estimates.

Source: United Nations Population Division

Owner: United Nations Population Division, World Population Prospects.

Potash fertilizers consumption (tonnes of K20 total nutrients)

Potash fertilizers consumption.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Potassium Sulphate

Is a white crystalline salt and contains 48 to 52 per cent potash (K20). Potassium sulfate can be extracted from naturally occurring brines or by the decomposition of potassium chloride with sulfuric acid.

Poultry birds (heads)

Domesticated birds for commercial use.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Poultry meat

Poultry birds, fresh, chilled or frozen, with bone in. All data shown relate to total meat production from both commercial and farm slaughter. Data are given in terms of dressed carcass weight, i.e. excluding offals and slaughter fats. Poultry meat includes Bird meat, nes, Chicken meat, Duck meat, Goose and guinea fowl meat and Turkey meat.

Poultry meat (tonnes)

See 'Poultry meat' and 'Production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Poverty gap at $1.25 a day PPP (percent)

Poverty gap is the mean shortfall from the poverty line (counting the nonpoor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.

Source: World Bank (WDI)

Owner: World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database. For more information and methodology, please see PovcalNet (http://iresearch.worldbank.org/PovcalNet/index.htm).

Poverty gap at $2 a day PPP (percente)

Poverty gap is the mean shortfall from the poverty line (counting the nonpoor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.

Source: World Bank (WDI)

Owner: World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database. For more information and methodology, please see PovcalNet (http://iresearch.worldbank.org/PovcalNet/index.htm).

Poverty gap at national poverty line (percent)

Poverty gap at national poverty line is the mean shortfall from the poverty line (counting the nonpoor as having zero shortfall) as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.

Source: World Bank (WDI)

Owner: Global Poverty Working Group. Data are based on World Bank's country poverty assessments and country Poverty Reduction Strategies.

Poverty gap at rural poverty line (percent)

Poverty gap at rural poverty line is the mean shortfall from the poverty line (counting the nonpoor as having zero shortfall) as a percentage of the national rural poverty line. This measure reflects the depth of poverty as well as its incidence.

Source: World Bank (WDI)

Owner: Global Poverty Working Group. Data are based on World Bank's country poverty assessments and country Poverty Reduction Strategies.

Poverty headcount ratio at $1.25 a day PPP (percent of population)

Population below $1.25 a day is the percentage of the population living on less than $1.25 a day at 2005 international prices. As a result of revisions in PPP exchange rates, poverty rates for individual countries cannot be compared with poverty rates reported in earlier editions.

Source: World Bank (WDI)

Owner: World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database. For more information and methodology, please see PovcalNet (http://iresearch.worldbank.org/PovcalNet/index.htm).

Poverty headcount ratio at $2 a day PPP (percent of population)

Population below $2 a day is the percentage of the population living on less than $2.00 a day at 2005 international prices. As a result of revisions in PPP exchange rates, poverty rates for individual countries cannot be compared with poverty rates reported in earlier editions.

Source: World Bank (WDI)

Owner: World Bank, Development Research Group. Data are based on primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are from the Luxembourg Income Study database. For more information and methodology, please see PovcalNet (http://iresearch.worldbank.org/PovcalNet/index.htm).

Poverty headcount ratio at national poverty line (percent of population)

Poverty headcount ratio at national poverty line (% of population).

Source: World Bank (WDI)

Owner: Global Poverty Working Group. Data are based on World Bank's country poverty assessments and country Poverty Reduction Strategies.

Prevalence of food inadequacy (percent)

It is conceptually analogous to the prevalence of undernourishment , but calculated setting the caloric threshold to a higher level, by using a Physical Activity Level (PAL) coefficient of 1.75, as opposed to 1.55. It measures the percentage of the population that is at risk of not covering the food requirements associated with normal physical activity, and therefore including also those who, even though cannot be considered chronically undernourished, are likely being conditioned in their economic activity by insufficient food. While the PoU is an estimator of chronic food deprivation ("hunger"), this new estimator is a less conservative measure of food inadequacy in the population. The indicator is calculated on 3 year averages.

Source: FAO, Statistics Division

Owner: FAO

Prevalence of undernourishment (percent)
Proportion of the population estimated to be at risk of caloric inadequacy. This is the traditional FAO hunger indicator, adopted as official Millenium Development Goal indicator for goal 1, target 1.9. The indicator is calculated on 3 year averages.
Source: FAO, Statistics Division
Owner: FAO

Primary completion rate, total (percent of relevant age group)
Primary completion rate is the percentage of students completing the last year of primary school. It is calculated by taking the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age.
Source: World Bank (WDI)
Owner: United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics.

Primary forest (ha)
Primary forest is naturally regenerated forest of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.
Source: Global Forest Resources Assessment
Owner: FAO

Production
Figures relate to the total domestic production whether inside or outside the agricultural sector, i.e. it includes non-commercial production and production from kitchen gardens. Unless otherwise indicated, production is reported at the farm level for crop and livestock products (i.e. in the case of crops, excluding harvesting losses) and in terms of live weight for fish items (i.e. the actual ex-water weight at the time of the catch). All data shown relate to total meat production from both commercial and farm slaughter. Data are expressed in terms of dressed carcass weight, excluding offal and slaughter fats. Production of beef and buffalo meat includes veal; mutton and goat meat includes meat from lambs and kids; pig meat includes bacon and ham in fresh equivalent. Poultry meat includes meat from all domestic birds and refers, wherever possible, to ready-to-cook weight.

Production - Livestock primary
Livestock primary products include products from live and slaughtered animals. Products from slaughtered animals include meat, offals, raw fats, fresh hides and skins. Products from live animals include milk, eggs, honey, beeswax and fibres of animal origin. All data shown relate to total meat production from both commercial and farm slaughter. Data are given in terms of dressed carcass weight, i.e. excluding offals and slaughter fats. Production of beef and buffalo meat includes veal; mutton and goat meat includes meat from lambs and kids, respectively; pig meat includes bacon and ham in fresh equivalent. Poultry meat includes meat from all domestic birds and refers, wherever possible, to ready-to-cook weight. Cow milk production relates to total production of whole fresh milk, excluding the milk sucked by young animals but including amounts fed to livestock. The concept of production of buffalo, sheep and goat milk is the same as for cow milk; however, the coverage is probably less adequate. Egg production covers all domestic birds which have contributed to egg production during the year, wherever they lay and the corresponding total production, including eggs intended to be used for hatching but excluding waste on farms.

Protein supply quantity in crops primary equivalent (g/cap/day)
Protein supply quantity in crops primary equivalent.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Pulses
Pulses are annual leguminous crops yielding from one to 12 grains or seeds of variable size, shape and colour within a pod. They are used for both food and feed. The term "pulses" is limited to crops harvested solely for dry grain, thereby excluding crops harvested green for food (green peas, green beans, etc.) which are classified as vegetable crops. Also excluded are those crops used mainly for oil extraction (e.g. soybean and groundnuts) and leguminous crops (e.g. seeds of clover and alfalfa) that are used exclusively for sowing purposes. They include Bambara beans, Beans, dry, Broad beans, horse beans, dry, Chick peas, Cow peas, dry, Lentils, Lupins, Peas, dry, Pigeon peas, Pulses, nes, and Vetches.

Pulses harvested area (ha)
See 'Pulses' and 'Crop area'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Pulses production (tonnes)
See 'Pulses' and 'Crop production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Pulses yield (hg/ha)
See 'Pulses' and 'Crop yield'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Rail-lines density (percent)
Rail lines density corresponds to the ratio between the length of railway route available for train service, irrespective of the number of parallel tracks (rail lines, total route in km) with the area of the country. Regional aggregates are computed as weighted average using surface area as weight. Because of the low coverage, missing values were interpolated using linear trend between two points or extrapolated backward and forward using closest point. Note that regional aggregates were calculated only if countries for which data were available represented more than 70% of the total area of the region they belong to.
Source: FAO, Statistics Division
Owner: International Road Federation, World Road Statistics and electronic files, except where noted.

Rape and Mustard Oil
Default composition: Oil, rapeseed, mustard

Recovered paper
Waste and scraps of paper or paperboard that have been collected for re-use as a raw material for the manufacture of paper and paperboard. It includes: paper and paperboard that has been used for its original purpose and residues from paper and paperboard production. See http://www.fao.org/forestry/62283/en/ for further information.

Recovered paper production (tonnes)
See 'Recovered paper' and 'Production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Rice (paddy)
Oryza spp., mainly oryza sativa. Rice grain after threshing and winnowing. Also known as rice in the husk and rough rice. Used mainly for human food.

Rice (paddy) production (tonnes)
See 'Rice (paddy)' and 'Crop production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Rice cultivation, total emissions in CO_2eq (gigagrams)
Greenhouse gas (GHG) emissions from rice cultivation consist of methane gas from the anaerobic decomposition of organic matter in paddy fields.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Rice harvested area (ha)
See 'Rice (paddy)' and 'Crop area'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Rice yield (hg/ha)
See 'Rice (paddy)' and 'Crop yield'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Road density (percent)
Road density is the ratio of the length of the country's total road network to the country's land area. The road network includes all roads in the country: motorways, highways, main or national roads, secondary or regional roads, and other urban and rural roads. Regional aggregates are computed as weighted average using surface area as weight. Because of the low coverage, missing values were interpolated using linear trend between two points or extrapolated backward and forward using the closest point. Note that regional aggregates were calculated only if countries for which data were available represented more than 70% of the total area of the region they belong to.
Source: FAO, Statistics Division
Owner: International Road Federation, World Road Statistics and electronic files, except where noted.

Root and tuber crops
Roots and tubers are plants yielding starchy roots, tubers, rhizomes, corms and stems. They include Potatoes, Sweet Potatoes, Cassava, Yautia (Cocoyam), Taro (Cocoyam), Yams, Roots And Tubers Nes.

Root and tuber crops production (tonnes)
See 'Root and tuber crops' and 'Crop production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Roots and tubers harvested area (ha)
See 'Root and tuber crops' and 'Crop area'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Roots and tubers yield (hg/ha)
See 'Root and tuber crops' and 'Crop yield'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Roots and tubers, nes
Including inter alia: arracacha (Arracacoa xanthorrhiza); arrowroot (Maranta arundinacea); chufa (Cyperus esculentus); sago palm (Metroxylon spp.); oca and ullucu (Oxalis tuberosa and Ullucus tuberosus); yam bean, jicama (Pachyrxhizus erosus, P. angulatus); mashua (Tropaeolum tuberosum); Jerusalem artichoke, topinambur (Helianthus tuberosus). Other tubers, roots or rhizomes, fresh, that are not identified separately because of their minor relevance at the international level. Because of their limited local importance, some countries report roots and tubers under this commodity heading that are classified individually by FAO.

Roundwood
All roundwood felled or otherwise harvested and removed. It comprises all wood obtained from removals, i.e. the quantities removed from forests and from trees outside the forest, including wood recovered from natural, felling and logging losses during the period, calendar year or forest year. It includes: all wood removed with or without bark, including wood removed in its round form, or split, roughly squared or in other form (e.g. branches, roots, stumps and burls (where these are harvested) and wood that is roughly shaped or pointed. In the production statistics, it represents the sum of: wood fuel, including wood for charcoal; sawlogs and veneer logs; pulpwood, round and split; and other industrial roundwood. See http://www.fao.org/forestry/62283/en/ for further information.

Roundwood production (m^3)
See 'Roundwood' and 'Production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Rural population, total
Rural population refers to people living in rural areas as defined by national statistical offices.
Source: United Nations Population Division
Owner: United Nations Population Division, World Urbanization Prospects.

Safflower seed
Carthamus tinctorius. Valued mainly for its oil. Minor uses include as a human food and as poultry feed.

Safflower seed
Glycine soja. The most important oil crop. Also widely consumed as a bean and in the form of various derived products because of its high protein content, e.g. soya milk, meat, etc.

Sawnwood
Wood that has been produced from both domestic and imported roundwood, either by sawing lengthways or by a profile-chipping process and that, with a few exceptions, exceeds 5 mm in thickness. It includes: planks, beams, joists, boards, rafters, scantlings, laths, boxboards, sleepers and "lumber", etc., in the following forms: unplaned, planed, grooved, tongued, fingerjointed, chamfered, rabbeted, V-jointed, beaded, etc. It excludes: wooden flooring. See http://www.fao.org/forestry/62283/en/ for further information.

Sawnwood production (m^3)
See 'Sawnwood' and 'Production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

School enrollment, primary, female (percent net)
Net enrollment ratio is the ratio of children of official school age based on the International Standard Classification of Education 1997 who are enrolled in school to the population of the corresponding official school age. Primary education provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music.
Source: World Bank (WDI)
Owner: United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics.

School enrollment, primary, male (percent net)
Net enrollment ratio is the ratio of children of official school age based on the International Standard Classification of Education 1997 who are enrolled in school to the population of the corresponding official school age. Primary education provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music.
Source: World Bank (WDI)
Owner: United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics.

Services, etc., value added (percent of GDP)
Services correspond to ISIC divisions 50-99 and they include value added in wholesale and retail trade (including hotels and restaurants), transport, and government, financial, professional, and personal services such as education, health care, and real estate services. Also included are imputed bank service charges, import duties, and any statistical discrepancies noted by national compilers as well as discrepancies arising from rescaling. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for

depreciation of fabricated assets or depletion and degradation of natural resources. The industrial origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3. Note: For VAB countries, gross value added at factor cost is used as the denominator.
Source: World Bank (WDI)
Owner: World Bank national accounts data, and OECD National Accounts data files.

Sesameseed Oil
Default composition: Oil, sesame

Share of energy supply derived from cereals, roots and tubers (percent)
Energy supply (in kcal/caput/day) provided by cereals, roots and tubers divided by total Dietary Energy Supply (DES) (in kcal/caput/day) calculated from the correponding categories in the FAOSTAT Food Balance Sheets. As other indicators based on Food Balance Sheets data, it is calculated on 3 year averages, to reduce the errors due to the difficulties in recording annual stock changes.
Source: FAO, Statistics Division
Owner: FAO

Share of feedstocks used in bioenergy production (percent)
Estimated shares of commodity globally used in non-food sectors, including industrial renewable materials and bioenergy.
Source: FAO, Statistics Division
Owner: FAO

Share of food expenditure of the poor (percent)
Proportion of food consumption over total consumption (food and non-food) for the lowest income quintile of the population.
Source: FAO, Statistics Division
Owner: FAO

Share of freshwater resources withdrawn by agriculture (percent)
Water withdrawn for irrigation in a given year, expressed in percent of the total actual renewable water resources (TRWR_actual). This parameter is an indication of the pressure on the renewable water resources caused by irrigation.
Source: Land and Water Division (AQUASTAT)
Owner: FAO

Sheep
Ovis spp.. See 'Cattle'. Includes Uriel, Argali, Bighorn, Karakul and Astrakhan.

Sheep and goat meat (tonnes)
See 'Sheep', 'Goats', 'Meat, total', and 'Production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Sheep and goats (heads)
See 'Sheep' and 'Goats'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Skim milk and buttermilk production, dry (tonnes)
See 'Milk excluding butter' and 'Milk production (tonnes)'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Soyabean Oil
Default composition: Oil, soybean

Sugar
Beta vulgaris var. altissima. In some producing countries, marginal quantities are consumed, either directly as food or in the preparation of jams.

Sugar (Raw Equivalent)
Default composition: 158 Sugar, cane, raw, centrifugal, 159 Sugar, beet, raw, centrifugal, 162 Sugar Raw Centrifugal, 164 Sugar refined, 168 Sugar confectionery, 171 Sugar flavoured

Sugar and honey exports (tonnes)
Exports (volume) of sugar and honey.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Sugar and honey imports (tonnes)
Imports (volume) of sugar and honey.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Sugar beet
Beta vulgaris var. altissima. In some producing countries, marginal quantities are consumed, either directly as food or in the preparation of jams.

Sugar cane
Saccharum officinarum. In some producing countries, marginal quantities of sugar cane are consumed, either directly as food or in the form of juice.

Sugar harvested area (ha)
See 'Sugar' and 'Crop area'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Sugar production (tonnes)
See 'Sugar' and 'Crop production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Sugar yield (hg/ha)
See 'Sugar' and 'Crop yield'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Sunflower seed
Helianthus annuus. Valued mainly for its oil. Minor uses include as a human food and as feed for birds.

Sunflowerseed Oil
Default composition: Oil, sunflower

Synthetic fertilizers, total emissions in CO_2eq (gigagrams)
Greenhouse gas (GHG) emissions from synthetic fertilizers consist of nitrous oxide gas from synthetic nitrogen additions to managed soils.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Telephone lines (per 100 people)
Telephone lines are fixed telephone lines that connect a subscriber's terminal equipment to the public switched telephone network and that have a port on a telephone exchange. Integrated services digital network channels ands fixed wireless subscribers are included.
Source: World Bank (WDI)
Owner: International Telecommunication Union, World Telecommunication/ICT Development Report and database, and World Bank estimates.

Terrestrial protected areas (share of total land area)

Terrestrial protected areas are totally or partially protected areas of at least 1,000 hectares that are designated by national authorities as scientific reserves with limited public access, national parks, natural monuments, nature reserves or wildlife sanctuaries, protected landscapes, and areas managed mainly for sustainable use. Marine areas, unclassified areas, littoral (intertidal) areas, and sites protected under local or provincial law are excluded.

Source: World Bank (WDI)

Owner: United Nations Environmental Program and the World Conservation Monitoring Centre, as compiled by the World Resources Institute, based on data from national authorities, national legislation and international agreements.

Total area equipped for irrigation (ha)

Area equipped to provide water (via irrigation) to crops. It includes areas equipped for full/partial control irrigation, equipped lowland areas, and areas equipped for spate irrigation.

Source: Land and Water Division (AQUASTAT)

Owner: FAO

Total female population of concern to UNHCR, total

See 'Total population of concern to UNHCR, total'.

Source: Statistical Online Population Database

Owner: UNHCR

Total forest (ha)

Sum of 'Other naturally regenerated forest (ha)', 'Primary forest (ha)', and 'Planted forest (ha)'.

Source: Global Forest Resources Assessment

Owner: FAO

Total land area (ha)

Land area is the total area of the country excluding area under inland water bodies. Possible variations in the data may be due to updating and revisions of the country data and not necessarily to any change of area. Data are expressed in 1 000 hectares.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Total male population of concern to UNHCR, total

See 'Total population of concern to UNHCR, total'.

Source: Statistical Online Population Database

Owner: UNHCR

Total meat exports (tonnes)

Exports (volume) of total meat.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Total meat imports (tonnes)

Imports (volume) of total meat.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Total ODA received (US$)

See 'Official Development Assistance'

Source: FAO, Statistics Division

Owner: The EAA dataset is compiled from OECD (as given included in the OECD internet home-page), DAC Reports, Annual Reports of the World Bank and data received from other organizations on regional development. The data are processed by following a series of steps such as analyses, including systematic checking and verifications at various stages for enhancing the quality of the data prior to dissemination on FAOSTAT.

Total pesticides use (tonnes)

Pesticides refer to insecticides, fungicides, herbicides, disinfectants and any substance or mixture of substances intended for preventing, destroying or controlling any pest, including vectors of human or animal disease, unwanted species of plants or animals causing harm during or otherwise interfering with the production, processing, storage, transport or marketing of food, agricultural commodities, wood and wood products or animal feedstuffs, or substances which may be administered to animals for the control of insects, arachnids or other pests in or on their bodies. The term includes substances intended for use as a plant growth regulator, defoliant, desiccant or agent for thinning fruit or preventing the premature fall of fruit, and substances applied to crops either before or after harvest to protect the commodity from deterioration during storage and transport. Pesticides use data refers to quantities of pesticides applied to crops and seeds in the agriculture sector. Figures are expressed in metric tons of active ingredients. However, due to some country reporting practices, the data may be reported by: use in formulated product; sales; distribution or imports for use in the agricultural sector. In these cases it is specified in the country notes.

Source: FAO FAO, Statistics Division

Owner: FAO

Total population of concern to UNHCR, total

Population of concern to UNHCR includes: refugees, asylum-seekers, returned refugees, internally displaced persons (IDPs) protected/assisted by UNHCR, returned IDPs, stateless persons, and others of concern to UNHCR.

Source: Statistical Online Population Database

Owner: UNHCR

Total public agricultural expenditures in R & D (2005 PPP US$)

Total public agricultural expenditures in R & D.

Source: ASTI

Owner: ASTI 2012, Eurostat 2012, OECD, 2012, and various country-level secondary sources (see for more information on data sources and estimations on http://www.asti.cgiar.org/pdf/CountrySourcesEstimations.pdf). Agricultural GDP from World Bank (2012).

Total public agricultural research expenditures (share of agricultural GDP)

Total public agricultural research expenditures as share of agricultural GDP.

Source: ASTI

Owner: ASTI 2012, Eurostat 2012, OECD, 2012, and various country-level secondary sources (see for more information on data sources and estimations on http://www.asti.cgiar.org/pdf/CountrySourcesEstimations.pdf). Agricultural GDP from World Bank (2012).

Total refugees, total

In UNHCR statistics, refugees include individuals recognized under the 1951 Convention relating to the Status of Refugees; its 1967 Protocol; the 1969 OAU Convention Governing the Specific Aspects of Refugee Problems in Africa; those recognized in accordance with the UNHCR Statute; individuals granted complementary forms of protection; or, those enjoying 'temporary protection'. The 2007 refugee population category also includes people in a refugee-like situation, most of who were previously included in the Others of concern group. This sub-category is descriptive in nature and includes groups of persons who are outside their country or territory of origin and who face protection risks similar to those of refugees, but for whom refugee status has, for practical or other reasons, not been ascertained.

Source: Statistical Online Population Database

Owner: UNHCR

Total share of freshwater resources withdrawn (percent)

Total freshwater withdrawn in a given year, expressed in percentage of the actual total renewable water resources (TRWR_actual). This

parameter is an indication of the pressure on the renewable water resources.
Source: Land and Water Division (AQUASTAT)
Owner: FAO

Total water withdrawal (m^3/yr)
Annual quantity of water withdrawn for agricultural, industrial and municipal purposes. It includes renewable freshwater resources as well as potential over-abstraction of renewable groundwater or withdrawal of fossil groundwater and potential use of desalinated water or treated wastewater. It does not include in stream uses, which are characterized by a very low net consumption rate, such as recreation, navigation, hydropower, inland capture fisheries, etc.
Source: Land and Water Division (AQUASTAT)
Owner: FAO

Total water withdrawal per capita (m^3/yr/person)
Total annual amount of water withdrawn per capita.
Source: Land and Water Division (AQUASTAT)
Owner: FAO

Trade (percent of GDP)
Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product.
Source: World Bank (WDI)
Owner: World Bank national accounts data, and OECD National Accounts data files.

Treenuts harvested area (ha)
See 'Treenuts' and 'Crop area'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Treenuts production (tonnes)
See 'Treenuts' and 'Crop production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Treenuts yield (hg/ha)
See 'Treenuts' and 'Crop yield'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Urban population, total
Urban population refers to people living in urban areas as defined by national statistical offices.
Source: United Nations Population Division
Owner: United Nations Population Division, World Urbanization Prospects.

Value of agricultural exports
Value of agricultural exports should be reported in national currency, US dollars or other currency. Export values are mostly reported as FOB. In the FAOSTAT database export values are expressed in thousand US dollars.

Value of agricultural imports
Value of agricultural imports should be reported in national currency, US dollars or other currency. Import values are mostly reported as CIF. In the FAOSTAT database import values are expressed in thousand US dollars.

Value of food imports over total merchandise exports (percent)
Value of food (excl. fish) imports over total merchandise exports. The indicator is calculated on 3 year averages.
Source: FAO, Statistics Division
Owner: FAO

Value of food production per capita (I$/cap)
The total value of Annual Food Production, as estimated by FAO and published by FAOSTAT in International Dollars (I$) divided by the total population. It provides a cross country comparable measure of the relative economic size of the food production sector in the country. The indicator is calculated on 3 year averages.
Source: FAO, Statistics Division
Owner: FAO

Vegetable production (tonnes)
See 'Vegetable, including melons' and 'Crop production'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Vegetable, including melons
Vegetables, as classified in this group, are mainly annual plants cultivated as field and garden crops in the open and under glass, and used almost exclusively for food. Vegetables grown principally for animal feed or seed should be excluded. Certain plants, normally classified as cereals and pulses, belong to this group when harvested green, such as green maize, green peas, etc. This grouping differs from international trade classifications for vegetables in that it includes melons and watermelons, which are normally considered to be fruit crops. But, whereas fruit crops are virtually all permanent crops, melons and watermelons are similar to vegetables in that they are temporary crops. Chillies and green peppers are included in this grouping when they are harvested for consumption as vegetables and not processed into spices. FAO production data for green peas and green beans refer to the total weight including pods, although some countries report on a shelled weight basis. The weight of the pods ranges from 40 to 50 percent for peas to up to 70 percent for broad beans. Area data on small vegetable gardens are often omitted in agricultural surveys, although production estimates may be reported. Trade data for fresh vegetables also include chilled vegetables, meaning the temperature of the products has been reduced to around 0C without the products being frozen.

Vegetables harvested area (ha)
See 'Vegetable, including melons' and 'Crop area'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Vegetables yield (hg/ha)
See 'Vegetable, including melons' and 'Crop yield'.
Source: FAO, Statistics Division (FAOSTAT)
Owner: FAO

Vegetables, fresh nes
Including inter alia: bamboo shoots (Bambusa spp.); beets, chards (Beta vulgaris); capers (Capparis spinosa); cardoons (Cynara cardunculus); celery (Apium graveolens); chervil (Anthriscus cerefolium); cress (Lepidium sativum); fennel (Foeniculum vulgare); horseradish (Cochlearia armoracia); marjoram, sweet (Majorana hortensis); oyster plant (Tragopogon porrifolius); parsley (Petroselinum crispum); parsnips (Pastinaca sativa); radish (Raphanus sativus); rhubarb (Rheum spp.); rutabagas, swedes (Brassica napus); savory (Satureja hortensis); scorzonera (Scorzonera hispanica); sorrel (Rumex acetosa); soybean sprouts tarragon (Artemisia dracunculus); watercress (Nasturtium officinale). Other vegetables that are not identified separately because of their minor relevance at the international level. Because of their limited local importance, some countries report vegetables under this heading that are classified individually by FAO.

Waste
Amount of the commodity in question lost through wastage (waste) during the year at all stages between the level at which production is recorded and the household, i.e. storage and transportation. Losses occurring before and during harvest are excluded. Waste from both edible and inedible parts of the commodity occurring in the household is also excluded. Quantities lost during the transformation of primary commodities into processed products are taken

into account in the assessment of respective extraction/conversion rates. Distribution wastes tend to be considerable in countries with hot humid climate, difficult transportation and inadequate storage or processing facilities. This applies to the more perishable foodstuffs, and especially to those which have to be transported or stored for a long time in a tropical climate. Waste is often estimated as a fixed percentage of availability, the latter being defined as production plus imports plus stock withdrawals.

Water pollution, chemical industry (share of total BOD emissions)

Industry shares of emissions of organic water pollutants refer to emissions from manufacturing activities as defined by two-digit divisions of the International Standard Industrial Classification (ISIC), revision 2: chemicals (35). Emissions of organic water pollutants are measured by biochemical oxygen demand, which refers to the amount of oxygen that bacteria in water will consume in breaking down waste. This is a standard water-treatment test for the presence of organic pollutants.

Source: World Bank (WDI)

Owner: 1998 study by Hemamala Hettige, Muthukumara Mani, and David Wheeler, "Industrial Pollution in Economic Development: Kuznets Revisited" (available at www.worldbank.org/nipr). The data were updated by the World Bank's Development Research Group using the same methodology as the initial study.

Water pollution, clay and glass industry (share of total BOD emissions)

See 'Water pollution, chemical industry (% of total BOD emissions)'.

Source: World Bank (WDI)

Owner: See 'Water pollution, chemical industry (% of total BOD emissions)'.

Water pollution, food industry (share of total BOD emissions)

See 'Water pollution, chemical industry (% of total BOD emissions)'.

Source: World Bank (WDI)

Owner: See 'Water pollution, chemical industry (% of total BOD emissions)'.

Water pollution, metal industry (share of total BOD emissions)

See 'Water pollution, chemical industry (% of total BOD emissions)'.

Source: World Bank (WDI)

Owner: See 'Water pollution, chemical industry (% of total BOD emissions)'.

Water pollution, other industry (share of total BOD emissions)

See 'Water pollution, chemical industry (% of total BOD emissions)'.

Source: World Bank (WDI)

Owner: See 'Water pollution, chemical industry (% of total BOD emissions)'.

Water pollution, paper and pulp industry (share of total BOD emissions)

See 'Water pollution, chemical industry (% of total BOD emissions)'.

Source: World Bank (WDI)

Owner: See 'Water pollution, chemical industry (% of total BOD emissions)'.

Water pollution, textile industry (share of total BOD emissions)

See 'Water pollution, chemical industry (% of total BOD emissions)'.

Source: World Bank (WDI)

Owner: See 'Water pollution, chemical industry (% of total BOD emissions)'.

Water pollution, wood industry (share of total BOD emissions)

See 'Water pollution, chemical industry (% of total BOD emissions)'.

Source: World Bank (WDI)

Owner: See 'Water pollution, chemical industry (% of total BOD emissions)'.

Water resources per capita (m^3/yr/person)

Total annual internal renewable water resources per inhabitant.

Source: Land and Water Division (AQUASTAT)

Owner: FAO

Wheat

Triticum spp.: common (T. aestivum) durum (T. durum) spelt (T. spelta). Common and durum wheat are the main types. Among common wheat, the main varieties are spring and winter, hard and soft, and red and white. At the national level, different varieties should be reported separately, reflecting their different uses. Used mainly for human food.

Wheat harvested area (ha)

See 'Wheat' and 'Crop area'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Wheat production (tonnes)

See 'Wheat' and 'Crop production.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Wheat yield (hg/ha)

See 'Wheat' and 'Crop yield'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Wood-based panels

The wood-based panels category is an aggregate category. In the production and trade statistics, it represents the sum of: veneer sheets, plywood, particle board, and fibreboard. See http://www.fao.org/forestry/62283/en/ for further information.

Wood-based panels production (m^3)

See 'Wood-based panels' and 'Production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Wood pulp

Wood pulp is a fibrous material prepared from pulpwood, wood chips, particles, residues or recovered paper by mechanical and/or chemical process for further manufacture into paper, paperboard, fibreboard or other cellulose products. In the production and trade statistics, it represents the sum of: mechanical wood pulp; semi-chemical wood pulp; chemical wood pulp; and dissolving wood pulp. See http://www.fao.org/forestry/62283/en/ for further information.

Wood pulp production (tonnes)

See 'Wood pulp' and 'Production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Woodfuel

Roundwood that will be used as fuel for purposes such as cooking, heating or power production. It includes: wood harvested from main stems, branches and other parts of trees (where these are harvested for fuel) and wood that will be used for charcoal production (e.g. in pit kilns and portable ovens). The volume of roundwood used in charcoal production, is estimated by using a factor of 6.0 to convert from the weight (MT) of charcoal produced to the solid volume (CUM) of roundwood used in production. It is reported in cubic metres underbark (i.e. excluding bark). See http://www.fao.org/forestry/62283/en/ for further information.

Woodfuel production (m^3)

See 'Woodfuel' and 'Production'.

Source: FAO, Statistics Division (FAOSTAT)

Owner: FAO

Bibliography

African Development Bank 2012. *The African Economic Outlook: Promoting Youth Employment,* OECD publishing.

——— 2013. *The African Economic Outlook: Structural Trasformation and Natural Resources,* OECD publishing.

Bruinsma, J. 2011. The Resources Outlook: By How Much Do Land, Water and Crop Yields Need to Increase by 2050?, in *Looking Ahead in World Food and Agriculture: Perspectives to 2050*, ed. by Conforti, P. FAO, Rome.

El-Kholi, A., Darwish, T. & Taimeh, A. 2012. *Country Study on Status of Land Tenure, Planning and Management in Oriental Near East Countries.* FAO/SNO, Cairo.

FAO 2008. *Near East Agriculture Towards 2050: Prospects and Challenges, 29th FAO Regional Conference for the Near East,* FAO, Rome.

——— 2009. *The State of Food and Agriculture 2009 - Livestock in the Balance,* FAO, Rome.

——— 2010a. *FAO Regional priority framework for the Near East, Thiertieth FAO Regional Conference for the Near East,,* FAO, Rome.

——— 2010b. *Global Forest Resources Assessment 2010 - Main Report,* FAO, Rome.

——— 2010c. *The Implications of Soaring Food Prices and the Global Financial and Economic Crisis for Agricultural Development and Food and Nutrition Security in the Near East , Thiertieth FAO Regional Conference for the Near East,,* FAO, Rome.

——— 2011a. *Climate Change, Water and Food Security,* FAO, Rome.

——— 2011b. *The State of Food and Agriculture 2010-11 - Women in Agriculture: Closing the Gender Gap for Development,* FAO, Rome.

——— 2011c. *The State of Food Insecurity in the World 2011 - How Does International Price Volatility Affect Domestic Economies and Food Security?,* FAO, Rome.

——— 2011d. *The State of the World's Land and Water Resources for Food and Agriculture - Managing Systems at Risk,* FAO, Rome.

——— 2012a. *Actions to Adapt to and Mitigate Climate Change Impacts on Natural Resources: the Case of Fisheries and Aquaculture, Forestry, and Livestock in the Near East, 31st Regional Conference for the Near East,* FAO, Rome.

——— 2012b. *State of the World's Forests 2012 - The Role of Forests in Human History,* FAO, Rome.

——— 2012c. *The State of Food and Agriculture 2012 - Investing in Agriculture for a Better Future,* FAO, Rome.

——— 2012d. *The State of Food Insecurity in the World 2012 - Economic growth is necessary but not suffcient to accelerate reduction of hunger and malnutrition,* FAO, Rome.

——— 2012e. *The State of World Fisheries and Aquaculture 2012,* FAO, Rome.

——— 2012f. *World Agriculture: Towards 2030/2050 - The 2012 Revision,* FAO, Rome.

——— 2013a. *Statistical Analysis of Selected Food and Agricultural Indicators for the Near East,* FAO, Rome.

——— 2013b. *Statistical Yearbook,* FAO, Rome.

——— 2013c. *The State of Food and Agriculture 2013 - Food Systems for Better Nutrition,* FAO, Rome.

——— 2013d. *The State of Food Insecurity in the World 2013 - The Multiple Dimensions of Food Security,* FAO, Rome.

FAO/RNE 2012. *Proceeding of the workshop on forage production, conservation, and utilization for sustainable livestock production in the Oriental Near East Sub-Region, Beirut, Lebanon, 13-14 June 2011,* FAO/RNE, Cairo.

——— 2013a. *Food Security and nutrition in the Southern and Eastern Rim of the Mediterranean Basin,* FAO, Cairo.

——— 2013b. *Report of the expert consultation meeting on food losses and waste reduction in the Near East region: Towards a regional comprehensive strategy, Sharm El Sheikh, Egypt, 18-19 December 2012,* FAO, Cairo.

IEA 2009. *World Energy Outlook 2009 Fact Sheet: Why Is Our Current Pathway Unsustainable?,* International Energy Agency (IEA), Paris.

——— 2010. *World Energy Outlook 2010,* IEA, Paris.

——— 2013. *World Energy Outlook 2013,* IEA, Paris.

——— Various years a. *Energy Balances of Non-OECD Countries,* IEA, Paris.

——— Various years b. *Energy Balances of OECD Countries,* IEA, Paris.

——— Various years c. *Energy Statistics of Non-OECD Countries,* IEA, Paris.

——— Various years d. *Energy Statistics of OECD Countries,* IEA, Paris.

IFAD 2011. *Rural Poverty Report 2011 - New Realities, New Challenges: New Opportunities for Tomorrow's Generation,* International Fund for Agricultural Development (IFAD), Rome.

ILO 2009. *Guide to the New Millennium Development Goals Employment Indicators,* International Labour Organization (ILO), Geneva.

——— 2012. *Global Employment Trends 2012. Preventing a deeper job crisis,* ILO, Geneva.

——— 2013. *Global Employment Trends 2013 - Recovering from a second jobs dip,* ILO, Geneva.

——— Various years a. *Key Indicators of the Labour Market (KILM),* ILO, Geneva.

——— Various years b. *Yearbook of Labour Statistics,* ILO, Geneva.

IMF Various years . *International Financial Statistics Yearbook,* International Monetary Fund (IMF), Washington, D.C.

O'Donovan, D. 2008. *The Atlas of Health: Mapping the Challenges and Causes of Disease.* Earthscan, London.

OECD Various years a. *Development Co-operation Report,* Organization for Economic Co-operation and Development (OECD), Paris.

——— Various years b. *Geographical Distribution of Financial Flows to Developing Economies,* OECD, Paris.

OECD and FAO 2012. *Agricultural Outlook 2012-2021,* Organisation for Economic Co-operation and Development (OECD) and FAO.

Partnership on Measuring ICT for Development 2008. *The Global Information Society: A Statistical View,* United Nations, Santiago.

Prakash, A. (ed.) 2011. *Safeguarding Food Security in Volatile Global Markets.* FAO, Rome.

R Core Team 2012.*R: A Language and Environment for Statistical Computing*, R Foundation for Statistical Computing, Vienna, Austria. ISBN 3-900051-07-0.

Schmidhuber, J., Bruinsma, J. & Boedeker, G. 2011. Capital Requirements for Agriculture in Dveloping Countries to 2050, in *Looking Ahead in World Food and Agriculture: Perspectives to 2050*, ed. by Conforti, P. Food and Agriculture Organization.

Schmidhuber, J. and Bruinsma, J. 2011. Investing Towards a World Free of Hunger, Lowering Vulnerability and Enhancing Resilience, in *Safeguarding Food Security in Volatile Global Markets*, ed. by Prakash, A. FAO, Rome.

Tanyeri-Aburi, A. & H.Elamin, N. (eds.) 2011. *International Investments in Agriculture in the Near East: Evidence from Egypt, Morocco and Sudan.* FAO/RNE, Cairo.

UN 2008a. *International Standard Industrial Classification of All Economic Activities, 4th Revision. Statistical Papers Series M, No. 4, Rev. 4,* United Nations (UN), New York.

——— 2008b. *Kyoto Protocol to the United Nations Framework Convention on Climate Change,* United Nations Framework Convention on Climate Change, New York.

——— 2009a. *Copenhagen Accord,* United Nations Framework Convention on Climate Change, Copenhagen.

——— 2009b. *Fact Sheet: Stepping Up International Action on Climate Change: The Road to Copenhagen,* United Nations Framework Convention on Climate Change, New York.

UNDP 2010. *Human Development Report - The Real Wealth of Nations: Pathways to Human Development,* United Nations Development Programme (UNDP), New York.

——— 2011. *Human Development Report - Sustainability and Equity: A Better Future for All,* UNDP, New York.

UNESCO 2009. *World Water Development Report 3: Water in a Changing World,* UNESCO, Paris.

——— 2010. *UNESCO Science Report 2010,* UNESCO, Paris.

——— 2011. *International Standard Classification of Education, 2011 revision,* United Nations Educational, Scientific, and Cultural Organization (UNESCO), Paris.

——— Various years a. *EFA Global Monitoring Report,* UNESCO, Paris.

——— Various years b. *Global Education Digest,* UNESCO, Paris.

UNPD 2011. *World Population Prospects: The 2010 Revision,* UNPD, United Nations, Department of Economic and Social Affairs, New York.

——— 2013. *Trends in Total Migrant Stock: 2013 Revision,* United Nations Population Division (UNPD), United Nations, Department of Economic and Social Affairs, New York.

——— Various years. *World Urbanization Prospects,* UNPD, United Nations, Department of Economic and Social Affairs, New York.

van de Steeg, J. & Tibbo, M. 2012. *Livestock and Climate Change in the Near East Region: Measures to Adapt to and Mitigate Climate Change.* FAO/RNE, Cairo.

von Cramon-Taubadel, S. and Gustavo, A. and de Haen, H. and Nivyevskyi, O. 2011. Investment in Developing Countries Food and Agriculture - Assessing Agricultural Capital Stocks and Their Impact on Productivity, in *Looking Ahead in World Food and Agriculture: Perspectives to 2050*, ed. by Conforti, P. FAO, Rome.

WHO and UNICEF 2012. *Progress on Drinking Water and Sanitation,* World Health Organization (WHO) and United Nations Children's Fund (UNICEF), New York.

World Bank 2013. *World Development Report 2013: Jobs*. Oxford University Press, New York.

——— Various years . *World Development Indicators - Various issues,* WB, Washington, D.C.

World Bank and IMF 2012. *Global Monitoring Report: Food Prices, Nutrition, and the Millennium Development Goals,* World Bank and International Monetary Fund (IMF), Washington, D.C.

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The FAO Statistical Yearbook for Near East and North Africa is divided into four thematic parts:

1 | **The setting** measures the state of the agricultural resource base by assessing the supply of land, labour, capital and inputs, and examining the pressure on the world food system stemming from demographic and macroeconomic change.

2 | **Hunger dimensions** gauges the state of food insecurity and malnutrition, measuring the multitude of dimensions that give rise to hunger and shape undernourishment.

3 | **Feeding the world** evaluates the past and present productive capacity of world agriculture, together with the role of trade in meeting changing food, feed and other demands.

4 | **Sustainability dimensions** examines the sustainability of agriculture in the context of the pressure it exerts on the environment, including the interaction of agriculture with climate change, and how it can provide ecosystem services through the bio-based economy.

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